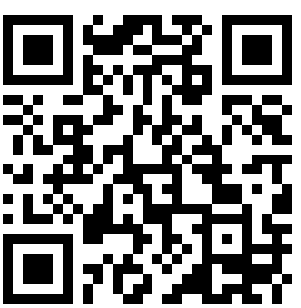

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Shadows and Straws

THE INTER-PROFESSIONAL CONFERENCE, of which an account appears elsewhere, has a significance that may not be appreciated by those who are not like, from traditional aversion, to explore the strangely new paths that men and women are everywhere blazing. Consider, for a moment, the press strike in Paris, which was a newspaper affair. Commenting upon the principles involved, the Paris correspondent of the *Westminster Gazette* says: "The man who sets up copy, the man who reads the proofs, and the man who prints the paper assert the principle that they should have some control over the man who writes; that they are not part of a machine which is indifferent to the contents of a newspaper. The doctrine ought not to be regarded as surprising, but it certainly has the gravest implications."

There were undoubtedly serious economic factors involved, but it was a belief in the unwillingness of the press to state the facts that led the printers to make the following statement: "Apart from a few exceptions, you will see that the newspapers have observed, with regard to the pirates who have enriched themselves at the expense of the public, the most culpable silence. The Press has then been false to its traditions and has failed in its problem."

Continuing his observations, the correspondent referred to says: "I say nothing about the accuracy of this judgment—it is a matter of opinion. . . . The point that is worth noting, which must be noted if one would realize the true importance of this strike, of this new social phenomenon, is that it is a demand for a share in the moral as well as the material manufacture of newspapers. It concerns the status of the worker. This is a fact of profound significance. That the question is posed under the pressure of economic difficulties does not minimize but rather increases the revolutionary (I employ the word in its most sober sense) character of the demand. In my opinion, this is the point which, for all students of present-day tendencies, should be emphasized. The whole problem of the Press, its functions, its control, the whole problem of the social situation of the worker, are plainly stated in this challenge. The moral responsibility of the worker, whether he should be in conscientious accord with his employer's interpretations of his functions in the community—these are immense interrogatories which go to the root of our system of society."

These are the new paths that fearless thinkers are blazing. They will not become highways without a struggle. But how inspiring to find a group of workers taking a moral view of their responsibilities as workers, in the most dangerous industry known to man. The printing-press and the newspaper do not take their toll of death on the battle-field, but by the more subtle method of assassination. They lie in wait for Truth and Facts and the onward marching army of Thought, and ceaselessly slay them in ambush. The world has no greater problem than that of the printing-press, yet it is a problem of moral responsibility. To introduce this factor into industry and commerce and the professions and vocations of life, from the highest paid to the lowest paid, will be to find the way out of our present grave crisis. There is no other way out. When men cannot be bought or hired to do that which they know to be against the welfare of society, the professional idea will have come wholly into its own, and human life "will have found sanctuary."

THE LEAGUE OF YOUTH, organized in England, has some notable supporters, including Viscount Bryce. It is non-partisan, non-religious, and aims definitely at finding a way to instruct youth in citizenship and to compel the old to reckon with the young in social and political problems. At the head is Mr. J. Aubrey Rees, who believes that "The younger generation claims a right to a greater voice in the direction of national and international affairs,

and the League is out to give their spirit and creative force a chance, so that the fine courage and enthusiasm, seen at their height on the battlefield, may be maintained and used at home in the fight against all kinds of social abuses. . . . It should teach our civic students the meaning of life in a coal-mine or a cotton factory, what the specter of unemployment means to the average workman, how increasingly hard is the struggle to rear children on small means and in an unhealthy environment."

When all citizens know, from working experience, what it means to descend into the pits and galleries of a coal-mine, or what a weave-shed seems like when the drosophores are working well on a summer day, we shall be in the way of understanding many things that are now incomprehensible. Sir J. D. McClure, President of the Congregational Union of England and Wales, speaking on the subject of education at the annual meeting of the Union in Bradford, in November, said: "The industrial problem is at bottom a moral one. Even labor unrest, though at times it assumed strange and dangerous forms, is due at the bottom to the influence of an ideal, dimly perceived, of a new and better state." One risks little in venturing the opinion that it will take Youth to show the way.

THE PLAN FOR EXTENDING Paris ought to bring forth some interesting and useful information. Renowned for years as a city where planning was accepted as a natural method of preparing for growth, the fact remains that Paris, like other great cities, finds itself badly congested, badly housed, badly served as to transport facilities. To understand the problem, which will have an international significance, we are giving a good deal of space to Mr. Hammarstrand's scholarly study of the question, which will continue through the next number, and we have added numerous illustrations of the Paris that was as a background.

LONDON HAS HER PROBLEMS, too, and the solutions that may be finally advocated will likewise be full of interest. Incidentally, I came across the following very charming picture of the London I know and love so much, written by Eleanor Elsner and printed in the *Westminster Gazette:*

"Many cities have laid their spell upon me—Rome, Paris, Madrid—but amongst them all the charm of London is most subtle and disturbing. In quiet country villages, in the desert, or on far distant seacoasts it tugs alike at your memories, and a nostalgia for its sounds and smells and sights makes the heart ache as it aches for the sight of a well-loved face. And although many parts of London hold this power, it is surely concentrated most peculiarly in Westminster. Westminster, with its Abbey and its cloisters, its Houses of Parliament, and its full-flowing river! The particular atmosphere of its streets seen through the misty blueness of an early autumn evening, with the silver sickle of the new moon in the sky, is a memory to thrill the heart for all time.

"To me, the true essence of London is felt in its most pungent and unmistakable quality in Westminster: it is like nothing else in any other city, and I well understand the soldier, home after years of fighting and wishing for nothing so much as to sit for days in the Green Park. '*Westminster will wipe out the horror,*' he said. And most truly the Green Park is a place of strange charm and delight. Sitting under its old trees, with a few golden leaves drifting about your chair, you can dream away a perfect autumn afternoon, and imagine yourself in a land of *faery*. Through vistas of tree trunks you catch glimpses of green turf and colored flower-beds, brilliant with vivid scarlet, splashes of color which give a thrill of sensuous delight. The plane trees—the trees of London—with their spotted trunks, all grey and green and brown, fit perfectly into the picture; even the wood pigeons are part of it, wandering about on the grass, too lazy to move away.

"It is difficult—well-nigh impossible—to measure the charm of cities, or say in what it consists, but I am coming more and more to believe certain things essential. They must have trees, a river, old buildings, and a particular mellowness given only by age. They must have that strange, peculiar feeling of history and romance which only belongs to places where generations of men have lived and loved, fought and fallen and conquered, where, in short, life has been lived to the full. The streets and old houses of Westminster are full of this spirit; it combines the old and the new in an almost mystical manner. One wonders what sandaled feet walked the cloisters of the Abbey in days gone by, what prayers and wishes and fervent desires were poured out there. Not so very different, perhaps, from those of the past five years, when one turned in to rest from the strain and turmoil, and to pray for the safety of fighting men.

"What great events stirred the passions of members in the Houses of Parliament when the fate of nations hung in the balance during these years of the Great War? The same, yet different, as when King Charles was tried in the Great Hall, or when Cromwell broke the Mace on the Commons table. What manner of folk lived in Smith Square, or beat out the measure of their days in Cowley Street? What strange harness clattered down to the great horse-ferry, or crossed the river on the old wooden bridges? We who live in Westminster of today have only to sit awhile in the gardens by the House of Lords to conjure up those gardens further down, where the courtiers played in the skittle-alley near the Royal apartments; indeed we can almost catch the gleam of sunlight on the Queen's barge, drawing up to the water-gate at Whitehall!

"But to enjoy to the full all that Westminster can give us, we must not linger round the Abbey Cloisters or dream the afternoon away in the gardens. Stroll down any of the narrow streets—many of them now slums—leading to the river; each has a personality of its own, and each has its link with days long gone. Here an old mahogany door will arrest the attention, there a couple of rams' heads on the door-posts—or an ancient knocker. Not so very many years ago the night watchman walked these streets—his cries of "Twelve of the clock, and a fair night," echoing

from latticed windows and closely barred shutters. Not so very long ago flaming torches flared from the torch-holders on ancient railings, and mounting stones stood before many of the houses here. If you could explore the inside of these houses you would find many a panelled room, with carved ceilings and mantel-pieces, old iron staircases pushed out at the bottom to allow the crinolines to pass down—and not a few old powder closets still left.

"Evening comes delicately in Westminster, and the lights and shadows are subtle and elusive. There is a misty atmosphere in the streets—a veil through which we see, as in a dream or vision, the old Westminster of by-gone times: the black buildings glow like porphyry, the white coping stones gleam like marble—the last flicker of sunlight catches a window-pane!

"And so home, through the blue, lamp-hung night."

WE PUBLISH in this number nine photographs of Rheims Cathedral. They are part of a very fine series taken by Monsieur Antony-Thouret, and it is our intention later to publish a large part of the series in the form of a brochure. This will be offered for sale to members of the Institute and their friends, and the proceeds are to be turned over to the *Société des Amis de la Cathédrale de Reims*. This organization, which is under the high patronage of the President of the French Republic and Cardinal Luçon, and of which Monsieur Antony-Thouret is the treasurer, has for its object the collection of a fund to be used in the refurnishing of the cathedral so that the interior appointments shall be in keeping with the spirit of the ancient fabric. Also it is the intention of the Society of the Friends of Rheims Cathedral to inaugurate a lapidary museum in connection with the structure. Here will be collected and exhibited all the fragments of sculpture and decoration that have been rescued from the ruins, together with photographs taken before the war and during the various stages of the bombardments, architects' drawings, and engravings and other historic records of the cathedral.

We understand that the cathedral will be rebuilt in so far as may be structurally necessary to preserve the fabric against the elements, but that the ancient stones and sculpture will not be touched. One cannot escape being struck with astonishment, as one studies the photographs here reproduced and the remainder of the series. Only a miraculous good fortune, it would seem, guided the falling shells away from the main structural elements. The holes in the roof near the crossing indicate how little was the margin by which the piers were spared. But the construction of Rheims was extraordinarily robust. The careful calculations made for carrying the great stone spires, two on the main towers and one on either end of the transept, but which were never built, stood the fabric in great stead. Also, one is here conscious of a quality of workmanship and materials such as is scarcely known in any modern structure. In falling, great pieces of stone remained cemented fast together, even after being dashed onto the debris eighty feet below. In the next issue we hope to furnish a more extended account of the work of rebuilding and preserving.

The Opening Address of President Kimball, at the Inter-Professional Conference in Detroit

A DEFINITE, far-reaching, purposeful object is, I take it, the only possible excuse for suggesting further organizing a machinery-laden, over-organized, unhappy, perplexed, and well-nigh discouraged humanity.

Essentials to such an object should be: Undebatable justification of the object itself; a common viewpoint from which to consider its problems; a clear understanding as to who are rightly concerned with it, and an intelligent prognosis, which shall point out the obstacles that will be met, and that must be overcome; and a simple program that promises a result.

I should concentrate the purposes of this gathering on the formation of the strongest, most effective, far-reaching organization that can be conceived. As justifications of such an object, I offer the present dire necessity of mankind for some so far unevidenced defense against our present chaotic expectancy:

The all too apparent dominance of commercialism in most existing organizations:

The fact that the professional principle seems to offer the one so far unorganized social element, and, at the same time, as I understand it, the one and only one that can hope to qualify as non-commerical:

The present subservience of the professions: Their meagre contribution, except as the servile doers of the will of others. Witness the spectacle presented by the first august conference called by the President of the United States, in his untiring effort to harmonize labor and capital, wherein the representatives of a great profession, unaccredited as such, however, retained by the contending interests, unmindful of that higher professional obligation,

completely nullified each other's endeavors, endeavors which if combined for furthering the objects of the conference, might have offered a solution of its problem, instead of a potent contribution to its failure.

Continuing in justification of organizing, I offer also the total failure of the so-called professions to overcome the baneful effect of jealousies inherent in the inter-relation of all arts and sciences, and the failure to get their disciples past the bread-winning stage in time to contribute worthily to either art or science. Should none of these reasons seem sufficient, I would justify this conference by the belief that most, if not all, of our professional ills can be cured by the right sort of an organization.

Our hope of accomplishment lies, I think, in a clear common understanding—a single thought-language in which to discuss and clarify, for unless we can, in common, differentiate between unselfishness and greed, and distinguish professionalism from its counterfeits, our task is hopeless!

In considering who are rightly concerned in this matter, we should, I think, look first to those who see in professional life something more than the obligations of business and art, for every so-called profession will, I am sure, be found to have, and to cling to, its accepted prerogatives; and in each group that professes there will be found a very small percentage who practise what they profess. Each art and science will be found almost hopelessly jealous of all kindred callings, and within each group individual jealousies will prove the order, not the exception.

The finding of a common understanding of what a profession is will in itself be no easy task, while agreement on essential professional qualifications will, I prophesy, go far to justify all the accusation embodied in what I have just said. Let a clear and none too optimistic forecast lead us to approach our problem with appreciation of its difficulties. Let us make a great effort to be unselfish. Let each try to see with the other's eyes, and let us join in the hope that a common understanding and a clear way may be shown us.

In the matter of program for this meeting, I hesitate to lessen the range of possibilities by making even a single suggestion, yet I feel so strongly on certain points that I must offer some ideas at the risk of thereby proving my own disqualifying selfishness.

It seems to me that we should keep before us the creation of an instrument, big enough and broad enough to make known to the public the fundamental principle of professionalism and to secure for it recognition and acceptance. And, to that end, we should strive for qualifying standards far more human and far less technical than any so far advanced.

I should wipe out that time-honored distinction which for so many years has sought to limit the professions to the "cloth," "law," "medicine," "army," and "navy."

I would warn against trying to form any coalition of the recognized vocations through their representative organizations. I would seek to establish instead a single fundamental qualification, based on unselfishness as opposed to commercialism. And on that as a foundation, I would erect a standard, calling for a skilled service wherein the common interest of all mankind is first considered, the client second, and self last.

Under such a flag let us rally all who can and will practise according to that creed! Let us try this in the belief that the object is worthy—the opportunity here—and to justify our abiding faith in mankind!

If in this work we can avoid all stereotyped philosophies and theories and look only to a practical way to gather and harness skilled brains and big hearts, wherever we find them joined, I venture the opinion that a defense will be found before which commercial greed will stand checked, and behind which life—human life—will at last find sanctuary.

The First Inter-Professional Conference

DETROIT, MICHIGAN, NOVEMBER 28-29, 1919

"*THE object of the Inter-Professional Conference is to discover how to liberate the professions from the domination of selfish interest, both within and without the professions, to devise ways and means of better utilizing the professional heritage of knowledge and skill for the benefit of society, and to create relations between the professions looking toward these ends.*"

In those words lie the accomplishments of the first modern conference of its kind of which there seems to be any knowledge. One might say that the Idea has been latent for almost two thousand years, for surely no one can claim that the Idea is new. Only the word "liberate" implies newness and seems to take cognizance of a modern condition. Underneath it all one will find only the simple philosophy with which The Twelve girded themselves for their memorable journey. Indeed, we were all reminded of those disciples when it was proposed to increase the number of Council members to be elected by the

Conference from eleven to twelve. "No," said one of the conferees, "we all must remember that of the famous twelve, one fell. Let us keep to the original eleven."

But the striking thing about this conference was the light that played over it. We all know those gatherings of the usual sort, the "we-are-fortunate to-have-with-us" kind, which seem to resemble a large and inert pool into which pebbles of intelligence are now and then dropped without in any way disturbing the stolid surface. But the conference of which I write was more like a free-flowing stream, where the water played good-humoredly, always within bounds and yet never afraid to test itself against any obstruction that stood in its path. It was always aglow with a fine fervor, sparkling with the contact of mind against mind—not the contact of minds seeking to draw false scents over the trail, or the contact of minds engulfed in what Francis Hackett so admirably calls the "Invisible Censor," or the contact of minds engaged in what is popularly known as "passing the buck." There were differences of opinion, but they were very rarely differences in principle. On that point it was the most significant conference that I remember to have attended, and that is what I mean when I refer to the light that played over it. It was the light of intelligence seeking to function clearly and straightforwardly, and that so rarely happens at any conference.

There were about eighty men and women present at the opening address, published elsewhere in this issue of the Journal. They represented the vocations that are commonly known as professions. There were architects, dentists, doctors, engineers, journalists, lawyers, nurses, and teachers. (One will note that I have named them alphabetically in order to attach no emphasis to any particular one.) I doubt very much if there were many among the eighty who had previously conceived an idea of just what the conference was intended to do, although the tentative program had stated, in outline, the general purpose. But the response to the note struck in the opening address was unanimous, and from that time on the whole discussion revolved chiefly about what words should be used in order to clothe the Idea becomingly. The search for them occurred first in the Committee on Plan and Scope. There were discarded word after word, phrase after phrase. It seemed almost impossible to fit a wornout language to a thing so simple and elementary. Perhaps the best words have not yet been found,—only time can tell,—but there is no atom of doubt as to the conception of the Idea that remained in the minds of those who adopted them as their Declaration of Principle.

I think that any intelligent person can make an analysis of that declaration, without help, and yet it does embody one thought that cannot be too much emphasized. That thought is clothed in the words "professional heritage" and perhaps requires elucidation. The words were adopted in the first meeting of the Committee on Plan and Scope, and arose from a discussion as to what were the obligations of professional men. Commonly, it is thought that they derive from the concept that professional men and women have a certain lot of knowledge and skill through which they gain their livelihood, and that it is their duty to offer a certain surplus of that knowledge to society as a whole, in some kind of social or civic effort and without remuneration. "No," said one of the members of the Committee, "our knowledge and skill are inheritances. They have been bought and paid for by the laborious struggles of men and women down through the ages, through sweat and agony, through suffering, poverty, and deprivation. They are ours by inheritance only and we are only the trustees of that knowledge and skill. They belong to society. It is not a question of whether we should give back a part of them as a charity. Our first obligation is to the society from which we derive them. Men have never sought to carry the treasures of knowledge into the grave. They have ever sought to give them to the world, and we, through our application and study, seek to acquire what they have given to mankind. But it was to all men that the knowledge was given. The chosen few that use it have no right to sell it for private gain, to others who use it for private gain, unless in so doing they confer a true benefit upon society as a whole."

"Now we know that professional men often sell their knowledge and skill to clients who use the result against the interests of society. That is the system under which the world operates today, and it is because of that system that the needs of society take second place in the ambitions of men. Professional service belongs to society, not as a charity, but as a right." This is not the customary attitude on this question. We do not generally recognize that the fabric built by the minds of the past is common property, even though we do insist upon the educational idea through public schools and other facilities for possessing that fabric. It has, in modern times, been believed that those who could gain that knowledge had a right to use it for private gain first and for public service last.

If the question is here raised as to what use may be made of new knowledge derived from the genius or labor of living men, the answer is that they could not have gained that new knowledge unless there had been previous knowledge for them to use as stepping-stones; and that it is their solemn duty to put back into life more than they have taken from it. Otherwise there cannot possibly be any progress. If all

men take out more than they put in, we would become intellectually and morally bankrupt. The only thing that holds society together today is the fact that a few men and women put back infinitely more than they take out, trying vainly to balance the takings of those who return nothing. Knowledge is our intellectual banking system, and as such it is too often used, as is its financial counterpart, against the common interest of society.

But this philosophy of the professional obligation does not mean that the laborer is unworthy of his hire, but rather that instead of regarding our profession as private property, we should regard it as public property, a concept that does not differ so much after all, to cite but one example, from that which inspires us to seek means of bringing about a better quality in all that pertains to government and the growth and health of communities. Unfortunately, it is only too true that the evidence seems to indicate that society does not want our services, and that we must rise and fight in order to give back what we have taken. Perhaps a little analysis will reveal the fact that society is, generally speaking, represented in government, no matter what activity may be concerned, through the mouthpieces of servants who are too frequently immersed in the problem of protecting their own or some other vested interest. They deliberately obstruct the use of professional skill and service in order to achieve a selfish purpose.

On the other hand, it is also true that society as a whole does not always know what it needs or what is best, which is why there must always be assertiveness by the professions, which, on their part, must be wholly free of selfish interest if they are to be of genuine service. On the whole there seems to me to be nothing new or strange in this concept. Is not the whole battle of life the struggle of unselfishness against selfishness?

Again, there came the difficulty of giving a meaning to the word "professional." Who, for example, should be admitted to the Inter-Professional Conference? Clearly the very name implied the necessity of a definition, yet the qualifications for admission, as adopted by the conference are as follows: "All professional men and women or those rendering a personal service involving an obligation to society." I think that here may be found the one possible compromise in the whole conference, for, strictly speaking, the first six words are redundant. They were used, I think, in order to make it perfectly clear that those callings already known as professions were to be recognized without question. The balance of the qualification is open to the broadest possible construction, as it should be.

How will the Conference continue to function? Through local groups to be organized as fast as possible. Professional men and women of all kinds will be asked to meet with their professional confréres as a means of discovering how their knowledge and skill may be utilized for the benefit of their own communities. The Idea, after all, involves personal devotion. No organization will carry it along unless there abides in the membership a firm and resolute will to follow whither the Idea leads. No imposing group of officers, no elaborate constitution and by-laws, no rules and regulations and canons and codes will advance the Idea one single solitary foot. The one thing that will advance it will be Conviction.

It is a sorrowful commentary on the history of Ideas that they are generally done to death by organizations. Not wholly to death, for a true Idea never dies, but where can we find one that has not been crippled and rendered next to useless by the machinery that has been built around it. An Idea will persist and live in spite of its enemies, if it is a good Idea, but when we seek to translate the good Idea into an institution or an organization, whether it be the machinery of Government or of Education or of Religion, the Idea too often becomes obscured behind the veil, often quite unconsciously developed, of selfish interest. The organization becomes the end, not the Idea. So, against the cunning which always seeks to use every organization for selfish interest, personal exploitation and private profit, the Inter-Professional Conference will have to struggle. It is hardly reasonable to hope otherwise; indeed, on the question of admitting members, the point was freely made that men and women would seek to use membership in the Inter-Professional Conference for personal ends, and that every precaution must be taken to keep out such applicants. Surely, if an Idea has a soul, it must tremble with doubt and despair when it feels itself caught up in the meshes of a human organization.

The hope was even expressed, at the Conference in question, by one more reckless than the others, that no organization would result from the meeting, but that the Idea might be carried along as a Personal Crusade, each believer gathering to himself such others as he could find and so gradually swelling the force of conviction behind the Idea. But the Conference ruled otherwise and created an Executive Council of twenty-one (eleven of which were elected thereupon) and an Executive Committee of five. This is perhaps the least organization which was possible.

What is the next step? How will the Conference function? Only through the creation of local inter-professional conferences, as has already been said. These will be formed as fast as possible and these alone will represent the actual working force behind the Idea. As professional men and women, no matter what their calling, come together to discuss the common problems of their communities from the

unselfish and truly professional point of view, so alone will the work go on. Its larger significance will find expression in achievement, small, perhaps, at the beginning, but expanding as the Idea draws followers and inspires an increasing conviction.

It remains to be said that the Inter-Professional Conference grew out of the work of the Post-War Committee on Architectural Practice, which, in turn, grew out of the Institute. Thus we might say that the Idea had been born anew in architectural soil. But Architecture is only a manifestation of Life, and I prefer to think that it is from Life that we draw all our good ideas, no matter in what stream we find them, and that it is to Life that we owe our service in their cultivation. But the Post-War Committee may well take pleasure in the knowledge that it was the means of bringing to pass the first Inter-Professional Conference.

Architects, as well as all other professionals, will be asked to participate in local inter-professional conferences. My hope is that they will seek every opportunity so to participate and so to join with other forward-looking and intelligently minded people in seeking how to use their professional heritage for the benefit of society. Never was there a greater need or a greater opportunity.—C. H. W.

International Architecture

By HARRY BARNES, M. P., F. R. I. B. A., F. S. I.

"EAST is east and west is west, and never the twain shall meet." Thus Kipling, whose authority perhaps has somewhat waned in recent years, and whose dictum here expressed may perhaps be questioned. If the mind plays on the past, nothing more fascinating arrests it than the apparent movement that follows the sun. What fantasy of hope has led men in all ages to traverse that path? Who can say?—but so the story runs. Asia, the wellspring of life, flooding out its fountains of inexhaustible humanity, traversing great plains, scaling the precipitous mountain ranges, piercing through snow-blocked passes, always moving east to west. So Europe was settled. So America was sought. If Celt and Teuton and Slav have followed wave after wave, so it would almost seem as if the great qualities in art had moved.

It has been my good fortune within the last few months to be present at gatherings in this old city of London where the American Ambassador has been the principal guest, and as I have listened to him, bearing in my mind the remembrance of the great speakers of this country—Burke, Pitt, Fox, Sheridan, Bright, and Gladstone—it has seemed to me that oratory follows the universal path, and passing from the old has found a dwelling-place in the West.

Is it true, too, of architecture? I should be thought, perhaps, a traitor to my native art if I expressed such an opinion, and yet, from America comes to us at times the evidence of an ideality in conception and a vigor in treatment which suggests that there is a vitality in architecture to be found across the Atlantic—which much search on this side fails to reveal. However that may be, American architects may rest assured that here we recognize and appreciate to the full the results which are being achieved in the United States, and which, arising in the native genius of its artists, is fructified by the attention and assiduity with which they have applied themselves to educating that genius in the best traditions of the art.

As an architect who is also a politician, I am struck by what promises to be a reversal of the primeval movement. It would almost seem as if the current were turning, and the West were returning upon the East. A century of comparative isolation has made the United States the home of a great and prosperous people, who, perhaps, up to a few years ago, had not quite realized that the waters which sunder them from the rest of the world, unstable though they seemed, were a medium which formed a subtle but unseverable bond. A new conception of the union of the peoples of the world has emerged from the war. Internationalism has taken on a new meaning and, expressed in the idea of the League of Nations, makes an appeal to all men irrespective of their color, race, or belief.

My desire in this article is to discuss briefly the architectural implications of this great political conception. Is it to be? If so, it must have form and place. Where is that place to be? What form is it to take? In my mind it appears as a great city,—international, cosmopolitan,—where would be housed all the diplomatic, commercial, scientific, artistic, ethical, and religious institutions which symbolize the underlying of the essential unity of the world.

There is in the Library of Congress at Washington a great work by an American citizen, published before the war, setting out not only a conception of an international city, but dealing with the most meticulous details and problems such a city would present. This has been followed, since the war, by a further publication emphasizing the importance of

the proposal and suggesting suitable positions for its realization. Into this I do not propose to go. It should be central; it should be easy to access; it should have a relation not only to what now is but shall be. There is a part of the world which was the cradle of our race, which lies at the junction of three great continents, which for many centuries has been under the domination of a despotism that time has only now seen destroyed, which has been in many respects the special subject for American philanthropy and care. It is that part of the world in which the Turkish rule has been paramount; that part which still remains to be settled under the Treaty of Peace; that part over which the civilized world is unanimously of opinion should be thrown the egis of American protection and rule. There it seems to me the returning current should find its original fount. One of our poets has it that, "after the last returns the first; and what began best cannot end worst;" and it would be a striking consummation of human effort and endeavor if the last great people of the world were, in this primary home of humanity, to take a foremost part in erecting the greatest monument the world can ever see—that which marks the harmonization of all the discords that time has raised.

To this end it seems to me might be directed a great coöperation of the architectural genius of at least the three great powers—America, France, and Great Britain. Can there not be a correspondence between the great architectural institutions of these countries to ensure that this last and greatest political conception of the world may find a home worthy of it, in which, so far as stone may translate human aspirations and ideals, there may be erected a monument which would remain to be recognized throughout all time as an expression worthy of our spirit, even as the great memorials of the past appear to be the embodiment of its lesser achievements.

I spent an agreeable hour or two, not so long ago, in the library of the President of the Royal Institute of British Architects, and, *en passant*, let me say that I know of no architect in closer correspondence, both by the width of his sympathies and the extent of his knowledge, with the spirit that must underlie the successful prosecution of a great coöperative international architectural undertaking. There I found a work in which I soon became engrossed, an American publication setting forth the proposals for the city-planning of the Great Lakes city of Chicago. The account of the inception of that city-planning movement was fascinating in its revelation of the interest in architecture of those through whose resources and through whose demands architecture can alone find its worthy expression. As I turned page by page and saw unfolded the schemes for transforming that great American city into an ideal environment for the association of human beings, I am bound to confess that I could have wished some tithe of that enthusiasm could be infused in the breasts of those in whose hands the charge of our great cities is reposed.

Toward the realization in architecture of the home for the League of Nations, architects of the United States should be particularly drawn, for in no other country but theirs has there been a city especially designed and projected to be the home of the legislature, the executive and the judiciary of a federation of great states. Washington arose as the embodiment of the Declaration of Independence. It may be that a greater Washington may arise to embody, not a declaration of the independence of one state of another but the declaration of the mutual dependence of all states upon each other.

Post-War Committee—A New Zealand Opinion

THE ARCHITECT'S RELATION TO THE PUBLIC

IT is certainly true that a large number, perhaps the majority of domestic works are erected without the direction of a *recognized* architect, but it is also equally true that a large proportion of those so erected are designed and carried out by *competent* persons. Herein lies the difficulty.

The Registration Committee, whose duty it was to examine the qualifications of those desirous of being registered under the New Zealand Registration Act, had to admit several who, though not trained architects in the ordinary acceptance of the term, i. e., had not studied at any recognized school of architects nor passed any examination, yet they were quite competent to erect cottages and such simple works as form the mass of buildings in any town.

We endeavored to draw a firm line of demarcation between those who designed and supervised architectural works—architects in the accepted meaning—and those who designed and carried out the works as their builders. On trial it was held by the Court that unless we could prove that the applicant was absolutely incompetent to design and carry out any kind of building work he must be registered.

The justice of this view is manifest when it is

considered that no one trained architect can possibly be equally competent or skilled in designing all the types of buildings modern necessities demand. There may be some eminent architects who have proved themselves equally successful in many branches of design but the average practitioner soon finds his way to success along the line of least resistance—the line of his predilections, and these may lead him to ecclesiastical or domestic art, to the various types of institutions, to the works which modern industry require, or to the broader view of the arrangement of all these in town- or city-planning.

One has not far to seek for lamentable instances of failure caused by entrusting to an architect, eminent in one type of work, the design and supervision of a building in some other type. It therefore becomes impossible to speak of architects as members of a corporate body, all equally interested in and interpreting the vast range of sciences and arts included under the canopy of architecture. Every question asked must of necessity be answered in both the negative and affirmative.

Among the architects practising in any large town there are undoubtedly individuals capable of giving the highest architectural expression to one at least of the wants of the community, and collectively might be competent to supply them all. Therefore the question to be answered is "In what way are the public to be informed how to make the best use of the talent available?" The opportunity for greater service will certainly not come of itself. How it can come will be best discussed under Section 3—"the relation of the architect to his fellow-architects," but it is here imperative to at once express very firmly the belief that unless the public are educated in art there can be no possible advance in architecture. It is the public and those members of it who are placed in positions of authority on boards and councils who are now the final arbiters on all questions of architectural art. It is to this body of laymen, totally uneducated in art, that architects have to submit their designs for approval. There should be in New Zealand, and in all countries, as now in many cities of America, a fine art commission consisting of those whose taste has been developed by knowledge of those works in which the true principles of art are shown.

I read a paper on this branch of the subject, "A plea for the Study of Art as a Factor in General Education," before the Australasian Science Congress held in Dunedin in 1904, published in the Transactions of that date. In it I pleaded that the study of the principles of art should be taught in all secondary schools and colleges, and that even in the primary schools very much might be done to inculcate a love of the beautiful in nature and in art without in any way interfering with the established curriculum S. HURST SEAGER.

Nation Plans

By CYRUS KEHR

The Planning Idea Must Be Expanded

THE time for an expansion of the Planning Idea is at hand. Humanity interest has passed neighborhood limits and extended progressively until it has become nation-wide and world-wide. Planning whether for town or country, must be made to conform to this expanded interest.

Formerly such planning was restricted to the vacant part of a city residence lot or to larger "grounds" surrounding a residence. Later the efforts of planners seldom extended beyond the replanning of cities and towns, effort being applied chiefly to the area of the town or city, and dealing mainly with the correction of defects for the purpose of adapting the place to increased population. Only occasionally did a planner plan a new town or village on unoccupied land. Still later some planners ventured to take note of the fact that by growth towns and cities extend over surrounding areas, and the planners accordingly dared to put plan features over a belt immediately adjoining the present rim of the city—such a belt receiving the name of "twilight zone." Recently there has been recognition of more extended relation between a town or city and the lands surrounding it, so that some planners have departed from precedent sufficiently to discuss "regional planning," this term meaning the planning of the area that surrounds a city and is immediately tributary thereto industrially.

Regional Planning Not Enough

At a recent national gathering of persons interested in city planning and kindred subjects, this question of "regional planning" was discussed by a number of speakers as the final reach in physical expansion of planning. That discussion overlooked:

(1). The fact that, if planning proceeded on the lines recommended, every present city would be

surrounded by a planned area outside of which would be an ignored "no man's land" left to develop, or not develop without direction and with no relation to other areas;

(2). The basic fact that no city can be brought to its best without the fullest possible inter-relation with neighboring cities, and also with all other cities of the entire nation, and also with places outside of the nation;

(3). The fact that many of the more serious defects in a city are to be remedied not by planning in the city but externally thereto—in some cases far away from the city;

(4). That for social and industrial reasons, every city needs the best possible communication with all parts of its nation and with all parts of the world, because the fullest mental and spiritual development of the people of the city can be attained only by such communication; and for industrial advancement the city needs the best possible facilities to deliver its industrial products to all parts of the nation and to all parts of the world and to receive the products of all parts of the world and all parts of the nation;

(5). That the nation needs an approximately even distribution of population, and that that is to be sought through giving extended inter-relation to a large number of places with a view to adapting them to city development.

Planning for External Relationships

These facts call for an extension of planning beyond local projects dealing merely with city areas and "twilight zones" and immediately tributary "regions" surrounding the cities. In the planning of a city, first consideration must be given to this extended external relationship.

It is gratifying to note that appreciation of the value of city and town planning is growing. A particularly valuable manifestation is the effort to plan villages or small towns, or, better still, garden cities in which the land will be so occupied as to combine industry and agriculture in a community, giving to every family a suitable house and at least a small piece of ground. Yet in connection with this phase of planning, effort is also applied to limited areas and the larger external relationship is overlooked. But conditions are now forming which should make it easy for those interested in planning to give and obtain recognition to such an extension of the planning art as will seek to create the extended inter-relationships above suggested. A few of the states in this country have given official recognition to planning and enacted laws applicable to their towns and cities. And lately Saskatchewan and New Zealand have taken steps toward the same end, the aim, however, being also limited to the separate planning of towns and cities.

Town—State—Nation

After this official recognition that all towns and cities should be planned, it should not require much effort to reach the view that the towns and cities of Pennsylvania or Massachusetts should not be planned individually until after a comprehensive plan has been made whereby all the towns and cities of the state are inter-related for the best possible communication between any one of those places and any other of those places. But if the subject is followed further, it will be seen that such a state plan would not be sufficient, that all the towns and cities of the state need inter-relation with all the towns and cities of the entire nation; that every town and city in the state needs a national setting; that, therefore, we must omit the state plan and pass from the town and city plan to the Nation Plan.

As to the Saskatchewan problem, we will see, if we follow correct reasoning, that, if Saskatchewan were an island, there should first be a general plan for the entire province and that that plan should be followed by auxiliary or local planning. But all places in Saskatchewan will be benefited if they are given the best possible inter-relation with all places in the entire Dominion of Canada. That calls for a Dominion plan. And following the suggested course of analysis, we must reach the view that New Zealand's first planning need is a general plan structure (a Dominion plan) covering the entire Dominion and adapted to be used as a basis for the local planning of cities, towns, and country. The reasons for such extended or general plans will perhaps be better understood if I briefly state the conception and elaboration and embodiment in a book manuscript of my proposal for a National Plan for the United States. The principles thus presented will be applicable to this larger planning in other countries.

But before proceeding with that recital, let us place before us prominently the fact that, for the preparation of the Nation Plan, the nation is to be regarded as a unitary administrative, social, and industrial organism similar to a city—let us say it is a city. Let it also be noted that the Nation Plan will not include the planning of cities, towns, villages, or local rural areas. Such planning is to be left to ater local effort. The Nation Plan will comprise only factors which are of national consequence. The Nation Plan will constitute a large framework comprising national factors which will create the above-suggested inter-relationship between any local district or region and any other local district or region in the nation.

Highways, Waterways, and Railroads

There is first this main fact. Ten years or more ago, while studying various highway and railway and

city questions, I always observed that the particular matter under consideration was dependent upon other matters territorially outside of the first matter; that those territorially extraneous matters also required consideration; that a particular piece or section of highway, whether long or short, could not be considered by itself, but that it must be considered in relation with other highways and with other means of communication. In some instances it was seen that a congested highway did not itself need treatment for the relief of its congestion; because the proper treatment of another highway, or perhaps several other highways, would relieve the congestion on the first highway. In other instances it was seen that a highway which was considered of large importance would become of minor importance after proper location and treatment of other highways which were needed for the public convenience.

In considering railroads, the fact presented itself that every railroad and every part of a railroad is dependent upon other railroads and upon other means of transportation and upon other physical features which are not railroad features. The same may be said regarding waterways. A waterway considered by itself may have small value, its proper functioning depending upon inter-relation with other waterways, with highways, and with railways and other physical features.

Local Planning Problems

It was also seen that in some cases local congestion and other defects in cities could be eliminated without local treatment, but through such treatment as was necessary, for other considerations, in other parts of the city. I also noted that the planning for a city could not be made complete without placing the city into proper relation with the surrounding country and with neighboring centers or cities. It was noted that in many cases defects or unfavorable conditions of a city can be cured best or only by physical treatment outside of and in some cases relatively remote from the city.

Thus I saw that scarcely any individual problem or project could be considered independently of other factors; that it must be put into relation with extraneous factors. This led to the suggestion that no local problem can receive its proper treatment until a territorially larger basis or background has been formed. Along with this came the conviction that the economic and social defects throughout our country are, in large measure, due to the fact that heretofore we have planned and made effort in a local way, the result being insufficient and unbalanced communication throughout the nation.

In thus proceeding from the small to the larger and yet larger, the need of a larger and larger basis or background was presented, until it was finally seen that the entire national area should be taken as an original basis or unit for physical planning, the planning being on a diminishing scale—from the major to the minor. And then it was seen that even our nation, considered as a stupendous unit, can not be properly planned by itself, but that a plan for the entire nation should be inter-related with plans of adjoining land areas (Canada and Mexico) and should be related by sea communication lines with the islands of the sea and with other continents.

Further study also showed that, as political ward or borough boundaries must be ignored in city planning, so in the preparation of this larger plan, state capitals and state boundaries must be ignored.

Focal Points Through More Small Cities

It was seen that in some cases a city other than a state capital will be better suited to become a focal point or center for well-arranged national communication lines and to provide conditions which will invite the location of population and industries. It was also seen that the mere size of a city must not control in the choosing of centers or focal points; for it is probable that some cities have grown large because of artificial conditions which favored that location but which should not have existed, and because the nation needs more focal points—more cities—than the present number, in order that the population may be distributed more nearly evenly throughout the nation, and in order that the number of objectionably large cities may be limited.

It was also seen that, for the best fixing of focal points and the prescribing of best communication between those points and to permit best communication throughout the entire nation, individual communication lines must not be extended across the entire national area; that a communication line connecting two adjacent or neighbor focal points must be treated as an individual national "communication unit"—a "trunk-line unit"—and that when all the "focal points" have been thus connected by these individual communication units, we shall have a system of "communication units" or "trunk-line units" forming a comprehensive and balanced means of communication covering the entire nation.

The Extension of Travel

Formerly highways were relatively local. Gradually there has appeared a demand for longer range highway travel, and this has prompted proposals for main highways extending from coast to coast and from one national boundary to the other—lines "extending due east and west and due north and south." This would make the "checkerboard" arrangement which it has been found should not exist in cities, some cities having found it necessary

to go to very large expense to add focal points and diagonal communication lines to their "checkerboard" system.

We Have No Railway System

Our railroads have been located (not planned) in rivalry and without effort to inter-relate them. As a result, we have no railway system. Study in this connection revealed the fact that a real national system of railways can be formed only by adopting focal points and connecting those points by individual railway units. It was seen that this procedure would result in a balanced system of railways affording the best possible railway transportation from any part to any other part of the nation.

It was also seen that, in connection with this study, the fact must be recognized that transportation between two points can best and most economically be carried on if the communication line between those points is straight and level, and that, consequently, in contrast with previous practice, the location and planning of the communication units must be brought as nearly to this ideal as topography and other features permit.

Decentralization and Distribution

And a study of national conditions revealed the fact that our largest national social and economic defects are due to unequal distribution of population and industries and that those defects are due to defective communication and to lack of places having conditions inviting the location of population and industries. At present there are cities having harmful, deteriorating congestion of population, and transportation lines leading to such cities are congested, while in many other places our people live in small numbers and harmful isolation. It became clear that there should be a decentralization and distribution of population and that a balanced distribution of population and industries will make possible a reduction of congestion on transportation lines; because (1) the number of carrying lines will be increased, and (2) the distances between production and consumption will be reduced and the carrying distances thereby reduced.

The Rising Tide of Population

This study also led to consideration of the fact that our nation is in a formative condition and is rapidly increasing in population; that in approximately sixty years another one hundred million will be added, and that this prospective addition emphasizes the necessity for effort toward distribution through the formation of a large number of centers—potential cities—all provided with the best possible means of communication with all other parts of the nation—every center in the nation having the best communication with every other center.

And it was seen that sea transportation touches the interests of all the people and that it cannot serve all the people excepting through internal transportation means connected with seaports (sea gateways); and that therefore it is essential to the bringing of any community to its best that there be a nation-wide internal transportation system joined to the largest possible number of good seaports.

Planning in Triangles

Thus I reached the Nation Plan project comprising focal points, including seaports, and communication units connecting the focal points and forming a "triangular composition" constituting a balanced national communication system which should be supplemented by local planning dealing with population centers and communication lines which will be auxiliary to the centers and communication lines of the national system.

The above-mentioned "triangular composition" will be a vital feature of the Nation Plan. The focal points or centers are to be connected by three's, whereby triangles will be formed and every center will be touched by one apex of each of a group of triangles. On the plan maps, neighbor centers are to be connected by straight "experimental lines." The communication lines are then to be located complementary to and as nearly coincident with the experimental lines as topography and other considerations permit, the principle being kept in mind that a straight (and level) course affords the easiest movement for vehicles.

As above stated, the transportation lines connecting neighbor centers are to be treated as national communication units. All such units are to be located, designed and built with a view to permanence and such capacity as will be demanded by a national transportation system under present and future conditions. And fullest effort must be made to bring the highways, railways, and waterways into coördination or complementary inter-relation with each other.

Not only will the Nation Plan provide a balanced national system of transportation comprising the inter-related highways, railways, and waterways, but it will also have the very important function of forming a basis for planning which will be auxiliary to it, and whereby every locality will receive planning treatment which is best for local purposes and which will give that locality its best relation to near surroundings and to the entire national area.

Every center or focal point will present an area for a city or metropolitan district plan. Thus every triangle will have a relatively small area detached at each apex and made part of a city-plan area.

The remainder of each triangle is to be treated in detail for the development of subordinate centers and communication lines brought into proper relation with each other and with the major centers and communication lines of the same triangle. This will lead to the best that can be done for smaller towns and for the creation of good rural life conditions.

National Unity Through Planning

Perhaps some one may raise the question whether it is possible to make a plan covering so large a territorial area. Will anyone say that our nation is too large for unitary governmental administration? A large number of governmental functions extending in a connected way over the entire national area are being administered, and no reason is seen why this additional function should be impracticable on account of geographical magnitude. We have individual railways extending more than half way across the continent, and we have railways which have been operated in groups extending across the nation. Indeed, at present, all the principal railways of the entire country are being operated by a single federal authority. If these things can be done, it ought to be possible to frame railways to form a single national system. As to highways, at present a score of voluntary associations of citizens are engaged in the promotion of projects for highways which are to extend across the length or breadth of the country. If the contemplation of such projects is possible, should we not expect it to be feasible to develop sufficient breadth of vision to deal with the creation of a network of highways reaching over the entire national area? The people of various localities have given more or less consideration to the development of inland waterways, and Congress and the Corps of Engineers of the United States Army have given active attention to waterway questions in various parts of the country, some relating to projects for long waterways and others relating to the linking together of groups of waterways. If these relatively disconnected and yet large things can be done regarding waterways, are not the same minds capable of contemplating a single waterway scheme covering the entire national area? And if such vision may be had separately concerning railways and highways and waterways, is it visionary to suppose vision broad enough to treat inter-relation of a system of railways, a system of highways, and a system of waterways, each coextensive with the national area? In this connection we must note the fact that the mental vision of our people is rapidly widening geographically. Only a generation ago the interests of nearly all people were confined largely to their own neighborhood. Nearly all needs were supplied from a small local area. Now there is a nation-wide interchange of products, and the people have a knowledge and interest and sympathy covering the entire country. The people of every locality are neighbors to the people of every other locality in the entire nation.

Forest reserves, national parks, irrigation, flood control, water power, a national electricity distribution system, and other national factors will also have places in the Nation Plan.

And let us note that planning here and there in a disconnected way at many places throughout the nation would not produce a Nation Plan. To produce a Nation Plan we must form a unitary framing or plan structure extending over the entire national area and composed of inter-related factors or elements having national significance. Local planning is not Nation Planning.

If the triangles of the Nation Plan are made of such average size as to make the lengths of their sides approximately 150 miles, there will be about 300 or 350 "centers."

Preliminary to City-Planning—Zoning

By FREDERICK L. ACKERMAN

ANY descriptive work of recent date or any conference related to the general subject of City-Planning will be found to place considerable emphasis upon the subject of Zoning. The amount of emphasis depends of course upon the author or the group engaged in discussion. But with due allowance for differing points of view, it is clearly to be observed that Zoning has come to be viewed by the advocates of City-Planning as a matter of no less than first importance in working out the technique for correcting the maladjustments of our urban centers and in preventing new and developing centers from falling into the ways of the old.

Zoning is generally understood to be the creation by law of districts in which regulations, differing in various districts, prohibit the erection of certain specified kinds of buildings and certain specified uses of buildings. These regulations are all assumed to fall within the authority of police power for their enforcement; hence, such considerations as the enhancement of property values or esthetics are to

be ignored in their formulation. Generally speaking, Zoning is now conceived to be a function of the municipality, the power for which is derived from the geographical area called state. So much may be set down by way of defining what is usually meant by Zoning.

As has already been pointed out, it is generally agreed among the spokesmen that, in order to insure Zoning laws against adverse judicial decisions, a policy of expediency shall direct the work of their formulation, and that Zoning should be applied largely to existing conditions and "normal tendencies." This consideration is deemed of such vital importance that it has come to be set down as a "fundamental principle."

Of course, the general acceptance of this policy would mean that the future of our existing cities shall be bound to a plan of growth and development conforming exactly to the plan (?) by which they have grown and now exist. This is a rather sweeping generalization, but it may be supported by an examination of those Zoning laws and ordinances which have recently been drawn and are now in force.

It may be argued that, under existing conditions, this procedure is aimed at making the best of a bad bargain, and there would be something in such an argument were the matter of comparatively little importance. But it cannot be so rated since the effect of Zoning ordinances so conceived, is not only to crystallize the physical conditions of the present in our urban centers but to continue the same type of physical organization now characteristic of the modern city into the future. This applies not alone to the existing, expanding city, but it relates as well to those future cities which are not now in existence. That new cities may develop along other lines is not at all likely, since such cities would naturally draw upon the experiences of the older cities, and these laws and ordinances, framed from time to time in anticipation of their future, would largely conform to those already established. It would not appear reasonable, therefore, to assume that any material improvement is likely to result from the application of the measures thus far advocated. What is likely to result is a perpetuation of the present state of affairs in so far as the general type of urban centers is concerned, since it is acknowledged that it is not the purpose to modify "normal tendencies."

"Any community may be viewed as an industrial or economic mechanism, the structure of which is made up of what is called its economic institutions. Those institutions are habitual methods of carrying on the life process of the community in contact with the material environment in which it lives." Let us see.

There has come about a serious maladjustment of our material environment, sufficiently notorious to arrest the attention of other groups than those which experience first-hand the evil effects of this maladjustment. Residential areas, particularly those occupied by the common man, are always and ever being encroached upon by industry and business. To guard against encroachment, and to insure against the eventual complete elimination of a place of abode for the common man, regulations have been set up which restrict certain areas for residential purposes. The obvious necessity of holding secure such areas for residential occupancy gave judicial sanction to the "right" of a municipality so to restrict the use of private property.

In this respect, the application of the restrictive principle seems counter to "normal tendencies;" but that is because it merely sets a curb upon them, and the curbing takes place at approximately the point marking the limits of toleration, as regards what will be borne by the common man. In support of the contention that a policy of expediency directs these pronouncements of the spokesmen, as they claim so to set up their "standards of better living conditions," is the nature of the minimum standards which are set up with respect to habitations.

In the main, the so-called minimum standards amount to little more than a description of what has resulted from the economic forces which have been in operation in the recent past, and which are now operating—that is to say, when they are acting freely and unaffected by philanthropic standards or those aimed at by the extreme type of speculative profiteer. These minimum standards represent approximately the results of what may be properly set down as "normal tendencies" and conditions surrounding the carrying on of business enterprise as it runs in these times.

Indeed, so far as the habitation is concerned in urban centers, the minimum standards set up by the spokesmen represent, with a fair degree of accuracy, the slum at its best. That degree of toleration which may be admitted at any given time and place, without fear of a serious protest, becomes a standard in fact and in theory. It is at this point that it may be well to point out that these Zoning ordinances operate in a manner quite similar as regards the city as a whole as do restrictive ordinances applied to individual building. Neither restrictive building ordinances nor Zoning ordinances treat in any way with the underlying causes making for the developing of the maladjusted conditions which they are supposed to remedy. And it is the underlying causes which must come in for consideration if any considerable progress is made toward the modification of the present situation.

Therefore it would appear that a preliminary

step toward the formulation of any measures having the purpose of real accomplishment in view would be a study of the underlying causes making for the maladjustments. But it does not appear that any such studies have been made by the spokesmen of the City-Planning movement. That land might be used for other purposes than speculation does not seem to be a matter of such importance as to merit investigation. Nor does it appear that the ownership of land is of such importance as to come in for consideration among the "fundamental principles." Any study of the subject which fails to include a matter of such vital importance in the development of urban centers is surely not to be rated as a scientific study of the question in hand; and any conclusions arrived at without such a study must be set down as expression of policy only.

In the same way it would appear that, up to the present, little or no thought has been given to City-Planning as relating the urban center to its supporting agricultural community. It seems to be almost universally accepted that the seat of authority as regards these matters shall be the municipality. That these should be an exterior authority does not appear to have been debated, at least not to any considerable length. All this is a little curious since it should be apparent that the urban center arises out of an agricultural community and that the direction of its development is determined long before it has become aware of the problems it is creating out of its own unguided expansion. A small community can not possibly foresee these problems; it is lacking in experience; it is individualistic in the degree that it is small and isolated. Besides, it has no control over the area it will eventually occupy. It would therefore seem that in order to insure that urban centers shall come into being through other than the chance methods which now characterize their development, and which end always and ever in a wasteful, chaotic physical arrangement, there should be some exterior authority which could exercise some control over the expansion of a community, at least during the earlier stages of its growth. If we hope to exercise control over the development of our urban centers, we must insure at the outset that the growth and development of the urban centers shall be directed. And beyond the consideration relating to the control of the growth of the center itself is that which has to do with the maintenance of sufficient agricultural area to support it.

The urban center is, as the name suggests, a focus, and of course it is related in a multitude of ways to whatever surrounds it. That it is a center, related to its environing area, seems not to come in for any serious attention on the part of those who are attempting to deal with its organization by conscious planning and legislative action. Yet we cannot lay down "fundamental principles" of City-Planning unless we take into account the entire question of authority as regards the establishment of that power which is to control.

We have seen in urban centers, and we are beginning to see in rural centers, that the interest of the community can best be guarded by creating an authority above that of the individual as regards buildings. The selfishness of the individual is sufficient to destroy society. Something of the same nature holds as regards the city. The city is an industrial mechanism of the state. It derives its energy largely from its outlying agricultural area. It cannot be operated in isolation and apart from the outlying, supporting area.

It would therefore appear that, underlying the Zoning of cities and in the "fundamental principles" as set up by the spokesmen of the City-Planning movement, there should be some definite conclusion stated as to this tremendously important consideration. Of course, a study of the problems which arise out of the physical maladjustments characteristic of the modern urban centers and which sought to disclose the causes, would involve a study of our industrial system in the nature of an appraisal of the modern point of view.

But it is rated as dangerous by all, except the common man, to scrutinize the workings of those institutions which are to be held responsible for the present state of affairs, especially if it appears at all likely that such scrutiny will be likely to reveal any shortcomings in their working or be at all likely to get at the truth. Therefore, not wishing to run the risk of being counted among those who entertain doubts regarding the beneficient character of our existing economic institutions, investigations into their workings and the part they play in bringing about the maladjustments in a material environment is left to those who are sufficiently bold to ask questions of this nature.

That the spokesmen in charge of the City-Planning movement should be particularly interested in working out a scheme whereby no appreciable change should be made in the working of our economic institutions, is to be expected, since, for the most part, those who act as spokesmen live and draw their means of livelihood directly from that group which, while it may stand for progress, stands firmly for the idea that progress shall be accomplished without change. By this it is not intended to convey the impression that there is no value in a study of the technical methods of working a change in the material environment. It is rather merely pointed out that, by confining the study of the problem to these technical phases, and by taking the deliberate expedient stand that we can effect physical changes

without a corresponding change in the working of our economic institutions, it is not at all likely that much will result beyond the remunerative employment of the spokesmen of the movement.

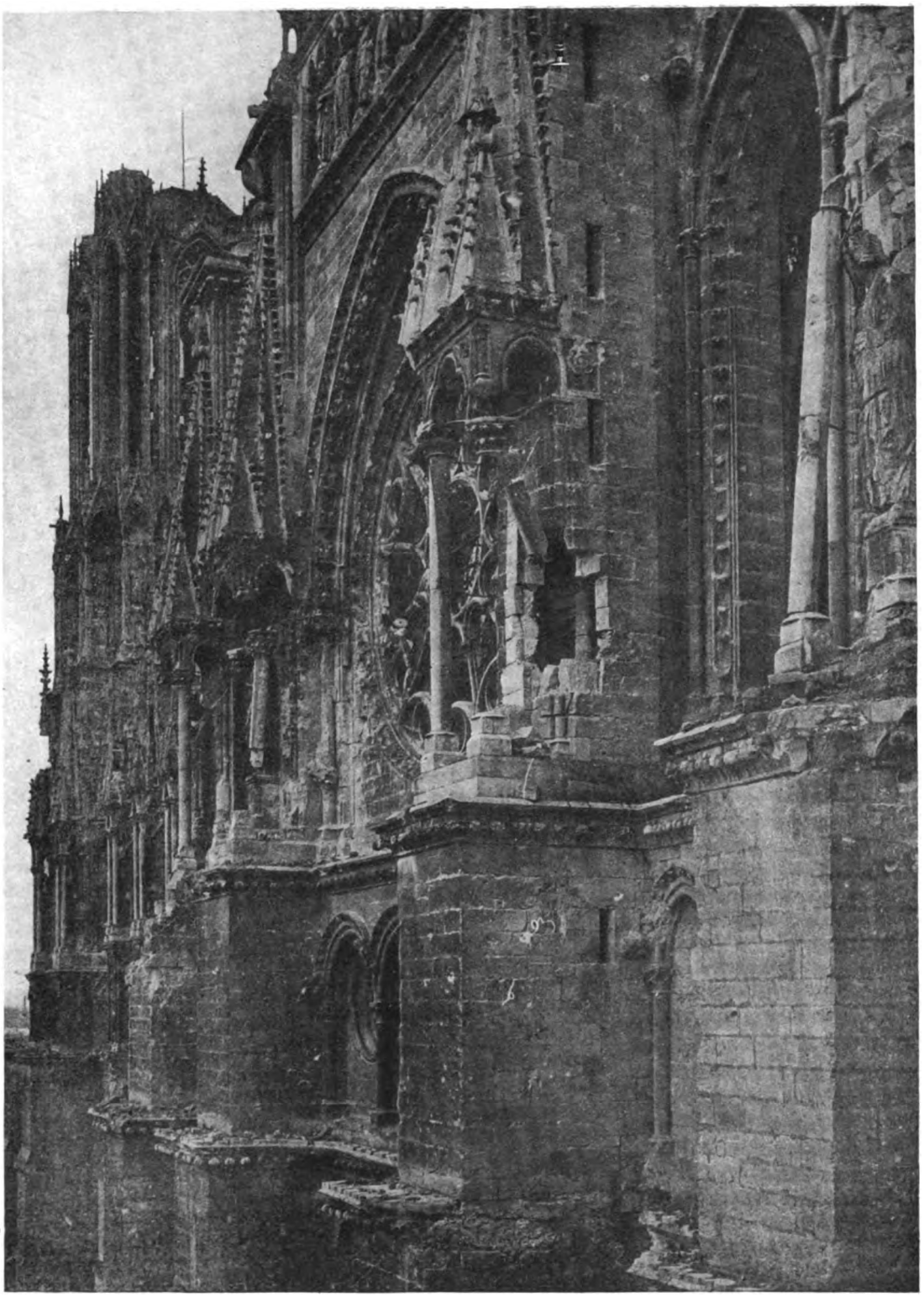
As City-Planning stands today, it is inhibited from accomplishing anything of any material value, since it accepts that nothing shall be done to prevent our economic institutions from continuing to run upon their wonted ways, Not only does this attitude inhibit the working out of modifications which appeal to those who have thought seriously of the matter, (advantageous changes so far as the actual working of our economic institutions is concerned), but it likewise, and in the same degree, inhibits the development of a more desirable arrangement of social grouping. For, carried along with the scheme of restraining industry from overrunning residential areas, is the scheme of establishing Zones within residential districts. Fortunately, the validity of this procedure is being questioned by some of the advocates of Zoning, but, as yet, the doubts expressed by such as hesitate are not deemed sufficiently important to check this procedure.

What causes the doubts which arise in the mind of the spokesmen who advocate minutely conceived schemes of Zoning residential areas? It is that some day in the near future the right to carry such schemes into effect will most likely be questioned by those whose experience and awakened understanding will have led them to ask the question: "Where do I come in for any material advantages in such a scheme, since by economic pressure I am excluded from gaining by it?" Of course, this will be a most difficult question to answer, particularly if the question be asked in court, as it is likely to be.

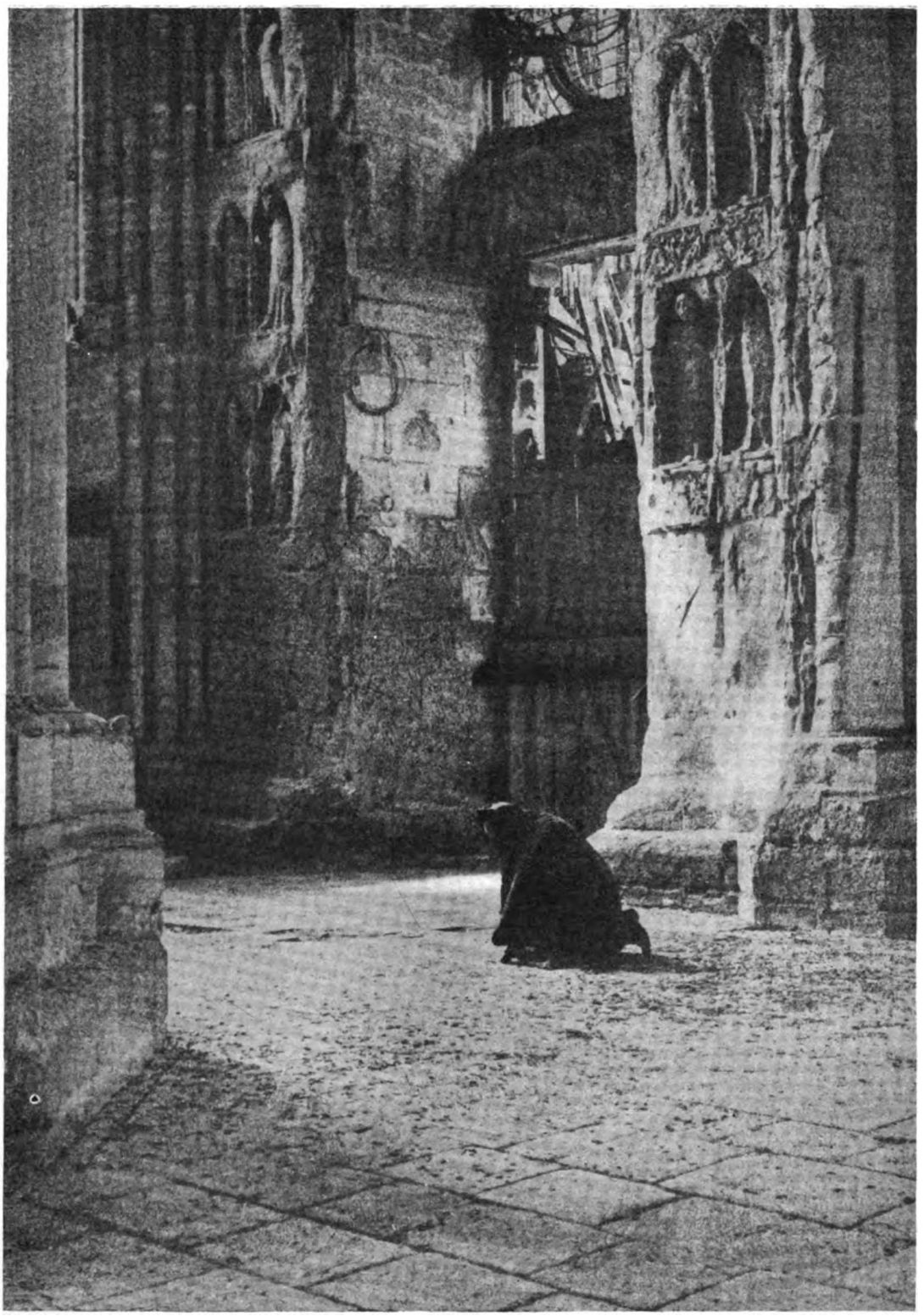
Thus the right or the propriety of dividing residential districts into several classes of occupancy is being questioned by a group who counsel stepping warily in these matters. But with a broken-down system of production,—that is to say, with a system of production which for one cause or another has failed completely in supplying the common man who labors constantly, and is at the same time thrifty, with an adequate home in an adequate environment, as is notoriously the case with the majority of those who live in our urban centers,—it is probable that in the course of time the common man will come to question why it is that in our urban centers we go to the pains of carefully restricting a considerable area of land against his use of it, which is what occurs when the restrictive measures are so framed as to require a character of residential development which is quite beyond his income to support. Of course he will argue, as it is now argued, that there might be something in placing a maximum as well as a minimum upon the amount of space which any individual or a family might occupy in urban areas. This may appear as a fantastic suggestion, but, reduced to terms of what passes for common sense, it will be seen, for example, that it would be entirely reasonable to require a more intensive use of land around a public park than elsewhere. This could be defended upon a great variety of grounds, and yet, quite the opposite of this condition is likely to be the outcome of any actual Zoning operation carried into effect under the guidance of the advocates of such measures.

The fact that the well-to-do occupy large dwellings along boulevards and parks is taken to be a "normal tendency," and therefore any attempt to modify this arrangement would be likely to be rated as an abnormal tendency and therefore condemned. Within the near future, however, it is possible that authority in the state may be expressed through individuals holding a point of view considerably at variance with that which is held by those now in power. If such a group should eventually come into power and should take a purely scientific view of the situation, it is quite possible that all of the minutely conceived schemes of zoning residential areas according to the economic standards of individuals would go by the board. That little is to be looked for by way of more rational urban planning, so long as it is directed by the present point of view as regards its general purpose, may be supported by reference to the question of human density. Authorities differ, here as elsewhere, but a fair average of opinion would probably place the maximum number of families to be housed upon an acre at 150. This statement alone is sufficient to indicate how far removed is the attitude of the spokesmen of the movement from that which would seek to solve the problem. As has been suggested, the best that may be hoped for is a feeble compromise between a slightly better condition and the condition of maladjustment as it stands revealed in the present. Of course it is impossible to legislate into being s system of urban centers properly related to supporting agricultural areas; nor is it possible to legislate into being an appreciably more rational urban center, or to effect these changes by legislative action so long as our economic institutions continue without abatement to run in the old ways. But it is possible to discover what changes must be brought about in the operation of our economic institutions in order that a better material environment may result from their operations. This is the subject to which the spokesmen of the City-Planning movement should address themselves. Not that the result of such study would certainly eventuate in accomplishment; but rather that through such a study we might acquire an understanding of what are the factors in our economic institutions which inhibit progress.

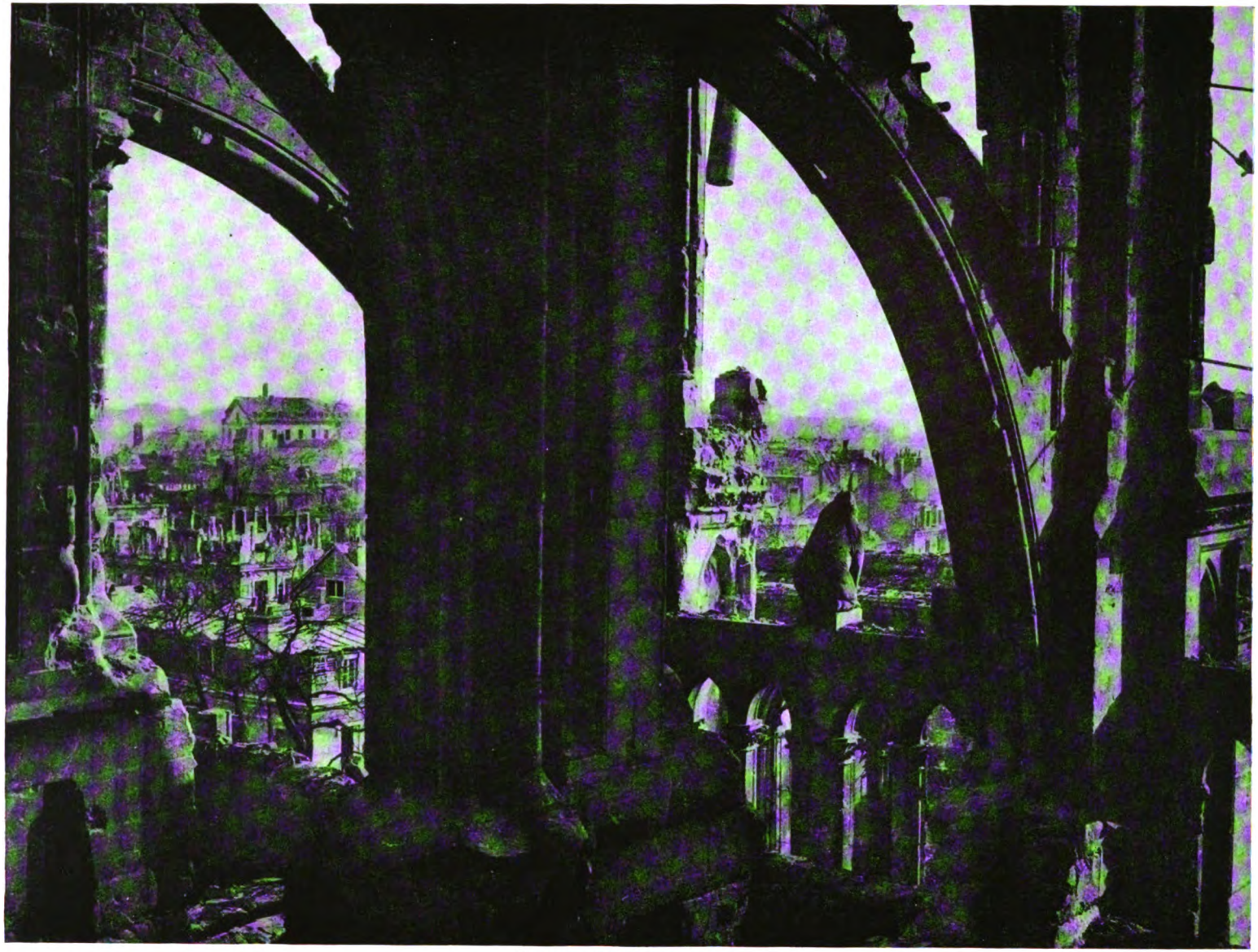
RHEIMS.—VIEW THROUGH THE PORTE-CHAPITRE
Photograph by Antony-Thouret



RHEIMS.—VIEW FROM THE ARCH-EPISCOPAL CHAPEL
Photograph by Antony-Thouret

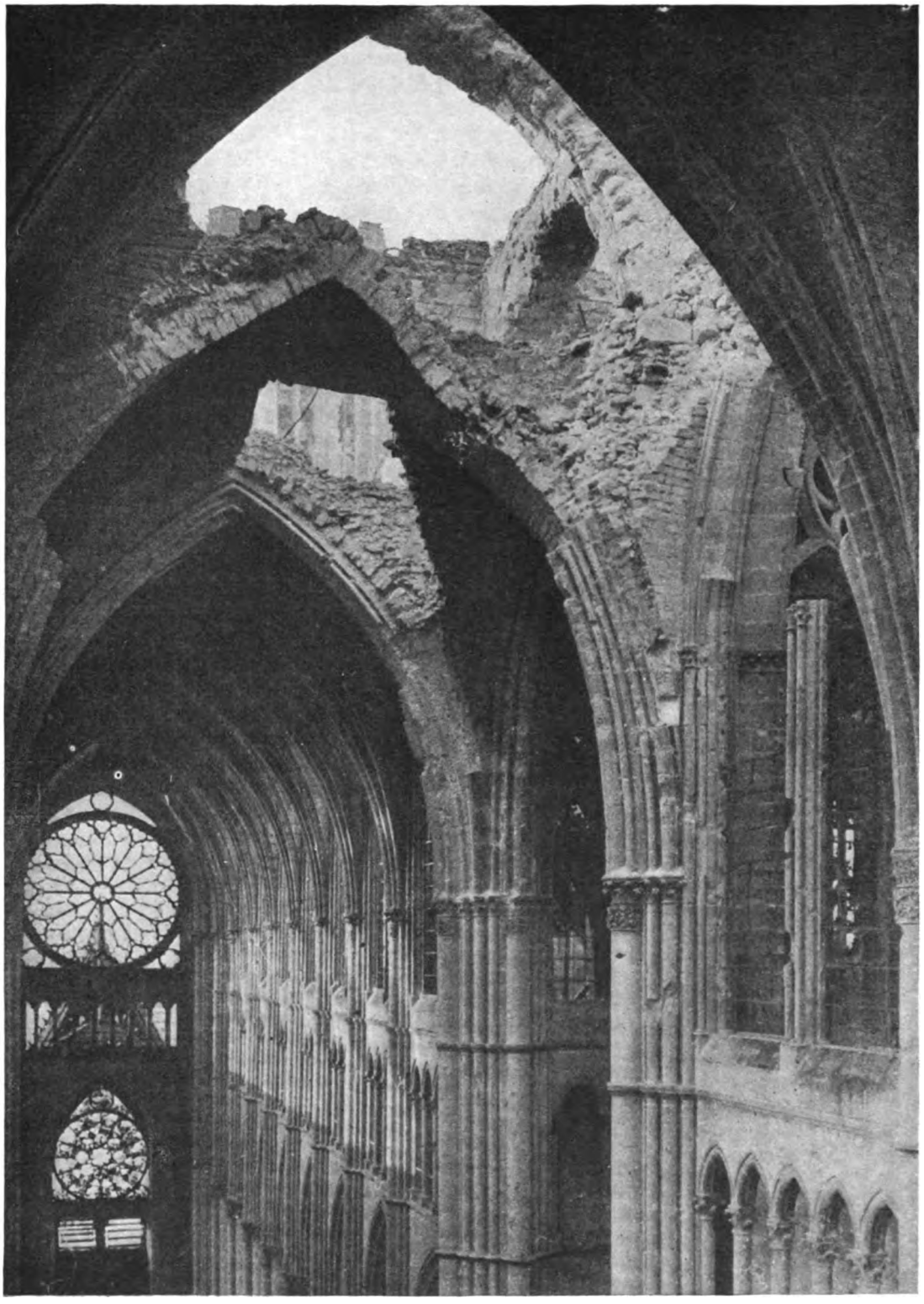


RHEIMS.—"THE PILGRIM"
Photograph by Antony-Thouret

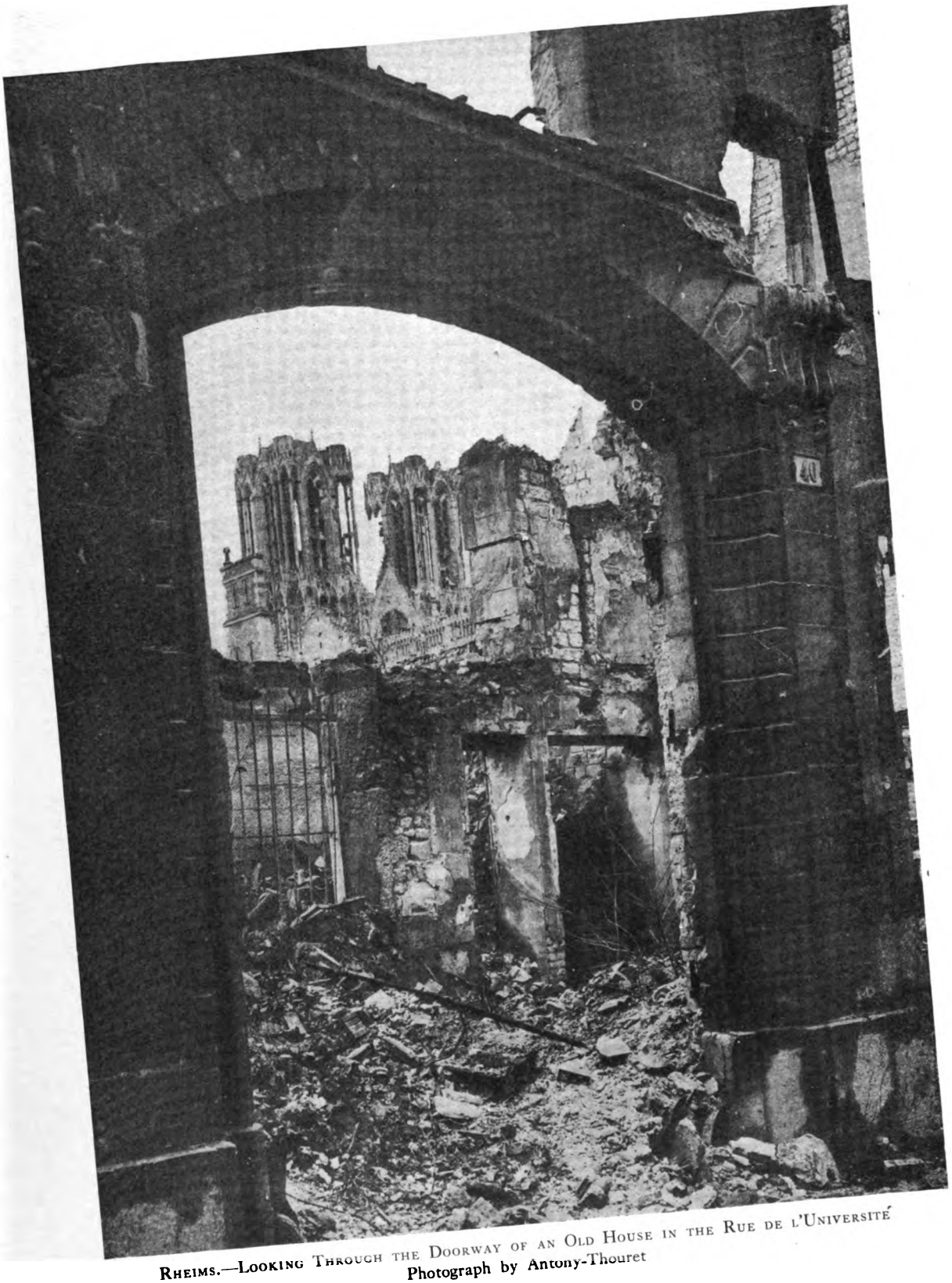


RHEIMS.—THE AMBULATORY
Photograph by Antony-Thouret

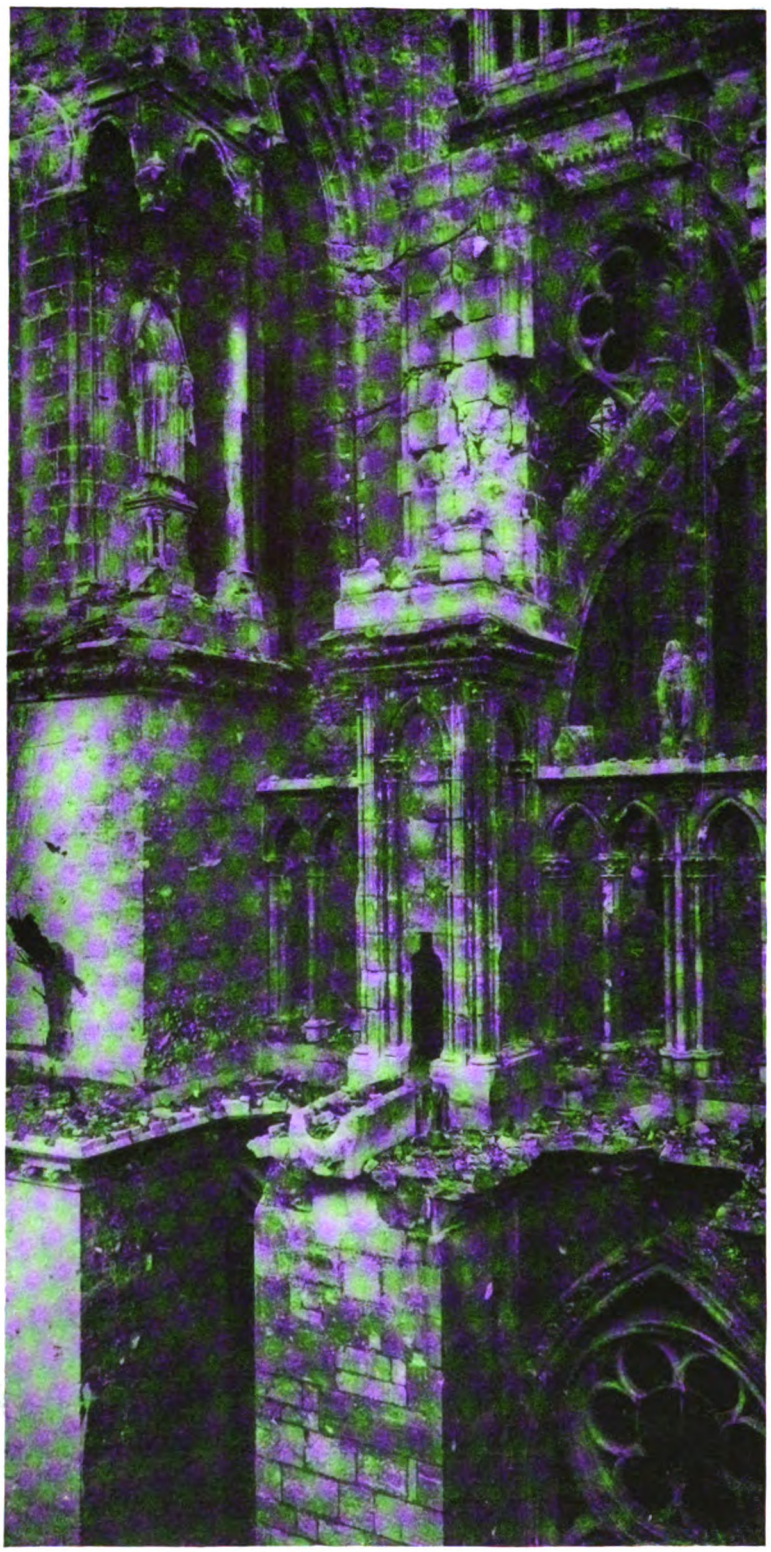
RHEIMS.—THE AMBULATORY
Photograph by Antony-Thouret



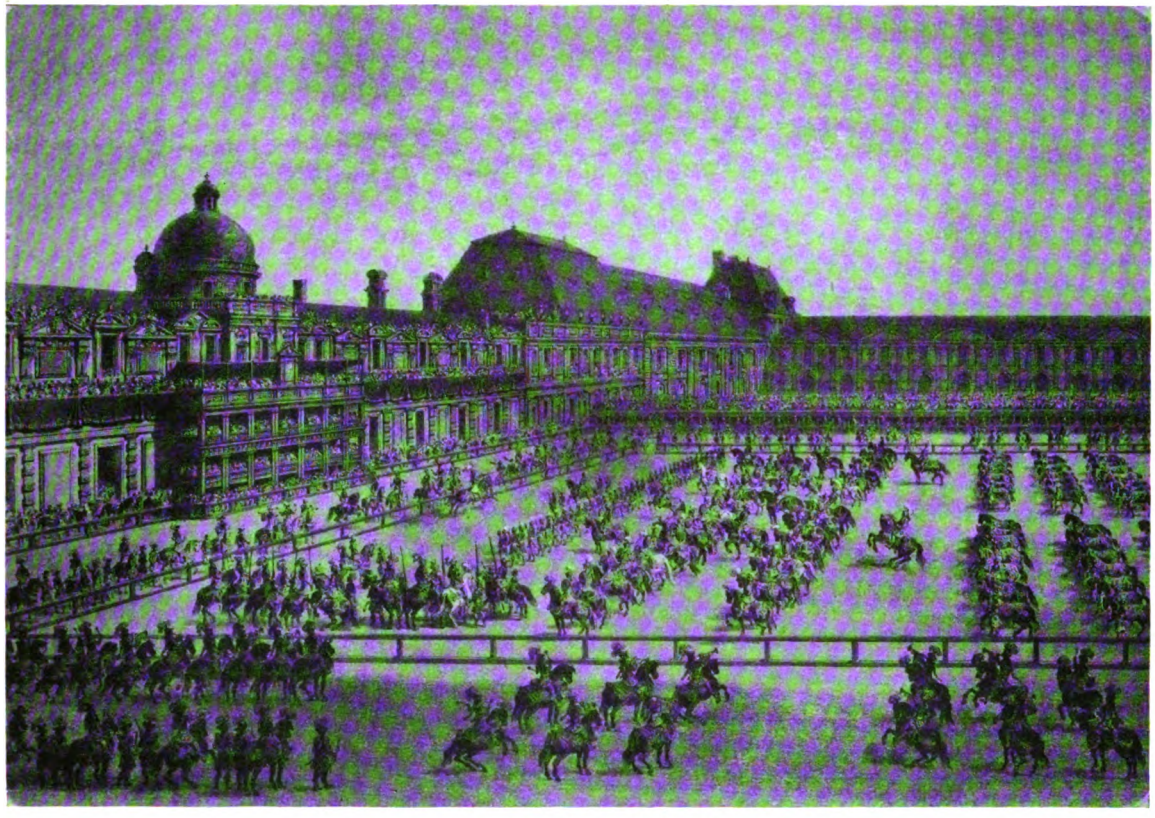
RHEIMS.—SHELL-HOLES IN THE ROOF
Photograph by Antony-Thouret



RHEIMS.—LOOKING THROUGH THE DOORWAY OF AN OLD HOUSE IN THE RUE DE L'UNIVERSITÉ
Photograph by Antony-Thouret



RHEIMS.—EASTERN SIDE OF THE TOWER OF THE SOUTHERN TRANSEPT
Photograph by Antony-Thouret



GRAND CARROUSEL UNDER LOUIS XIV (JUNE 5-6, 1862)
After an engraving of the period. Lithographed by Ph. Benoist and A. Bayot

The Programme for the Greater Paris Competition

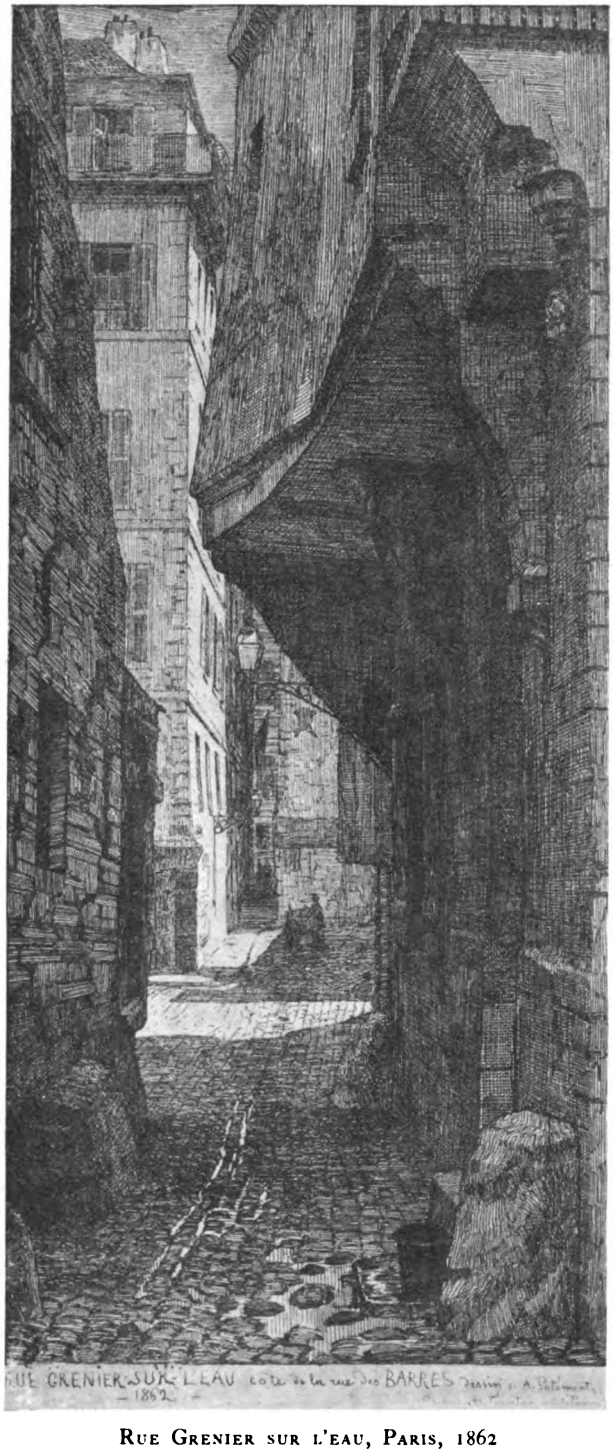
By NILS HAMMARSTRAND

WITHIN a few months the attention of city planners all over the world will be focused on the results of the great international competition launched by the city of Paris some months ago, with a view to obtaining projects and programmes for the extension and improvement of the city.

But for the war, this competition would certainly have taken place several years ago. The "Commission d'extension de Paris," which was established in 1909, produced in 1913 preliminary suggestions regarding the improvement of the street plan, as well as the reservation of park grounds in the suburban and outlying areas. Thus the matter seemed ripe for being dealt with along competitive lines when the war intervened and delayed action. It is to be supposed that the Commission on the Extension of Paris has not been inactive since then, but that additional investigations and studies of the problems have been made. Finally, however, on March 14, 1919, a law was promulgated, authorizing the competition. The authorization was soon followed by regulations regarding the future use of the grounds occupied by the old fortifications and of the extramural defensive zone subject to the military service *non ædificandi*. These regulations having been enacted, a programme for the competition, outlining the various rules and desiderata, could be formulated. In the following a brief survey of the main points of the programme will be given.

The Area To Be Planned

According to the programme, the area over which the schemes may extend is not restricted by definite limits. In this respect, as in almost every other respect, the competitors enjoy great liberty of action. The programme says that the law of March 14, 1919, referred to above, has established intercommunal and interdepartmental agreements, and that, in consequence hereof, the competitors are not bound by communal or departmental limits if, for instance, it is a question of creating park reservations beyond the boundaries of the Department of the Seine or of establishing new lines of communication.



RUE GRENIER SUR L'EAU, PARIS, 1862
After the etching by Martial

Competitors' Liberty of Action

It is considered desirable, though not mandatory, that the competitors should take into account the existing laws and regulations, when establishing their schemes. If certain dispositions of a project do not conform with the present legislation, the author of the project will have to justify the necessity of departing from the regulations. He may suggest that the present legislation be derogated or modified. He is at liberty to make any proposals aiming at modifying or amending present statutes, which in any way have a connection with the object of the competition. City-planning laws and building regulations, ordinances aiming at the improvement of hygienic and sanitary conditions, housing laws, expropriation acts, regulations of an esthetic purport, are all liable to being modified, repealed, or amended in consequence of suggestions by the competitors.

Nor are the competitors necessarily bound by such projects or programmes as may already have been propounded by the authorities, not even if such projects have been accepted and partially executed. What is expected of the competitors is new and valuable suggestions, promising better solutions than those which may have been previously proposed; in general, the competitors are not expected to furnish projects equaling definitive plans, but rather to present broadly conceived, fertile ideas, capable of being made of suggestive value when the ultimate plans shall be formulated. The plans will, of course, have to be carried out by sections, a circumstance which the competitors will have to consider when contriving the comprehensive schemes.

Classification of Projects

Besides comprehensive projects and programmes, embracing not only the city proper, but the whole Parisian agglomeration and the outlying districts, limited schemes will be admitted. Thus the projects are classified under four sections.

1. Comprehensive projects, as characterized above.

2. Comprehensive projects exclusively aiming at the improvement of the city proper.

3. Projects embracing the grounds of the old fortifications, the extramural, military zone and their immediate surroundings. Only projects regarding these grounds in their entirety are admitted under this section.

4. Limited schemes and proposals concerning some part of the city or of the Parisian agglomeration, or dealing with any of the particular problems regarding the object of the competition, or studying the methods and means for realizing the plans of improvement and extension.

Scope of the Programme

The programme may be said to comprise every phase and aspect of city development. There is no imitation to the questions and problems affecting the Greater Paris of the future, with the solution of

which the competitors may occupy themselves. However, it may perhaps be observed that a still greater stress might have been laid on the improvement of the housing conditions in the interest of the great masses of the population. This is being said without overlooking the important initiatives, with this aim in view, which lately have been taken by the authorities, as will appear in the following.

Special Desiderata

(*a*) *Revision of the Street Plan.*

Respecting the improvements of the city inside the fortifications, it may be permissible to recall the fact that its problems largely are to be solved through action in the exterior, contiguous, or outlying areas. The suburban and ultra-suburban regions, where unsound real-estate speculation and perfunctory, inadequate planning generally have reigned undisturbed, are now beginning to be looked upon as the main battle-fields of the far-sighted city planner striving to achieve victories in the interest of the public weal.

Thus, when the conditions of Paris demand an extensive revision of the street system and a sanitation of the interior by rebuilding overcrowded, unsanitary quarters, the problem of exterior planning more than insistently urges itself upon the planner, demanding the greatest, most comprehensive, coördinate efforts.

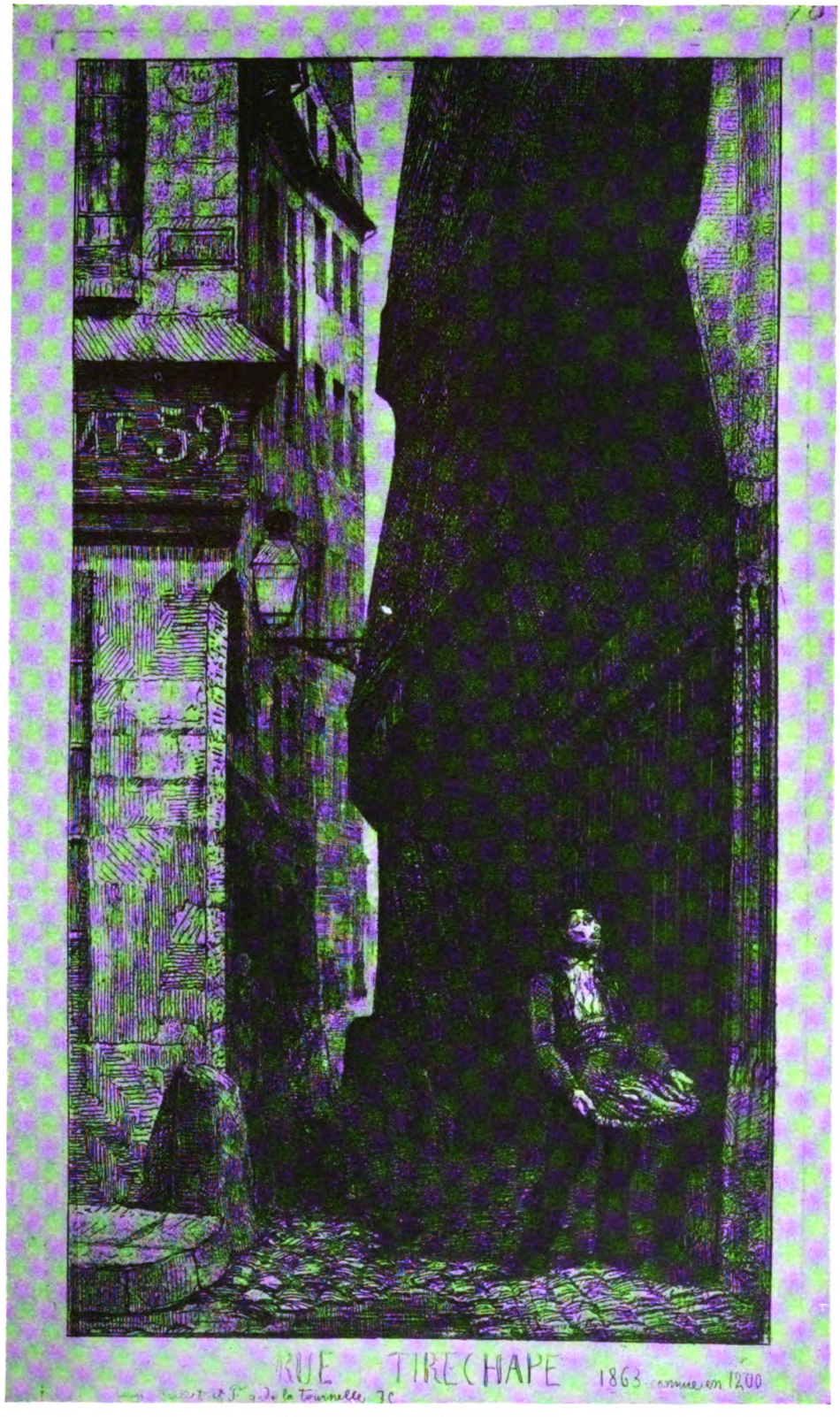
As regards the improvement of the street system, preliminary plans for such operations on a large scale, evolved by the "Commission d'extension de Paris," have recently been dealt with at some length in this Journal. The Commission on the Extension of Paris combined, in a more or less satisfactory manner, various projects of an older date with suggestions of their own. The execution of some of these projects has actually begun, or has even been accomplished. It will be the aim of the competitors to try and improve on the plans of the Commission by offering, if possible, solutions which are at once more economical and more efficacious, answering the actual needs of the circulation, while, as far as possible, respecting noteworthy buildings.

As the paramount importance of the intersections of main traffic arteries has become more and more recognized, it is to be expected that many of the competitors will make them an object of special effort, as well as suggest better methods of traffic distribution and control, though, indeed, the programme does not especially emphasize these points. With regard to the circulation on the surface no considerations are as important as these.

Rue de la Vieille Tannerie, Paris, 1850
After the etching by Martial

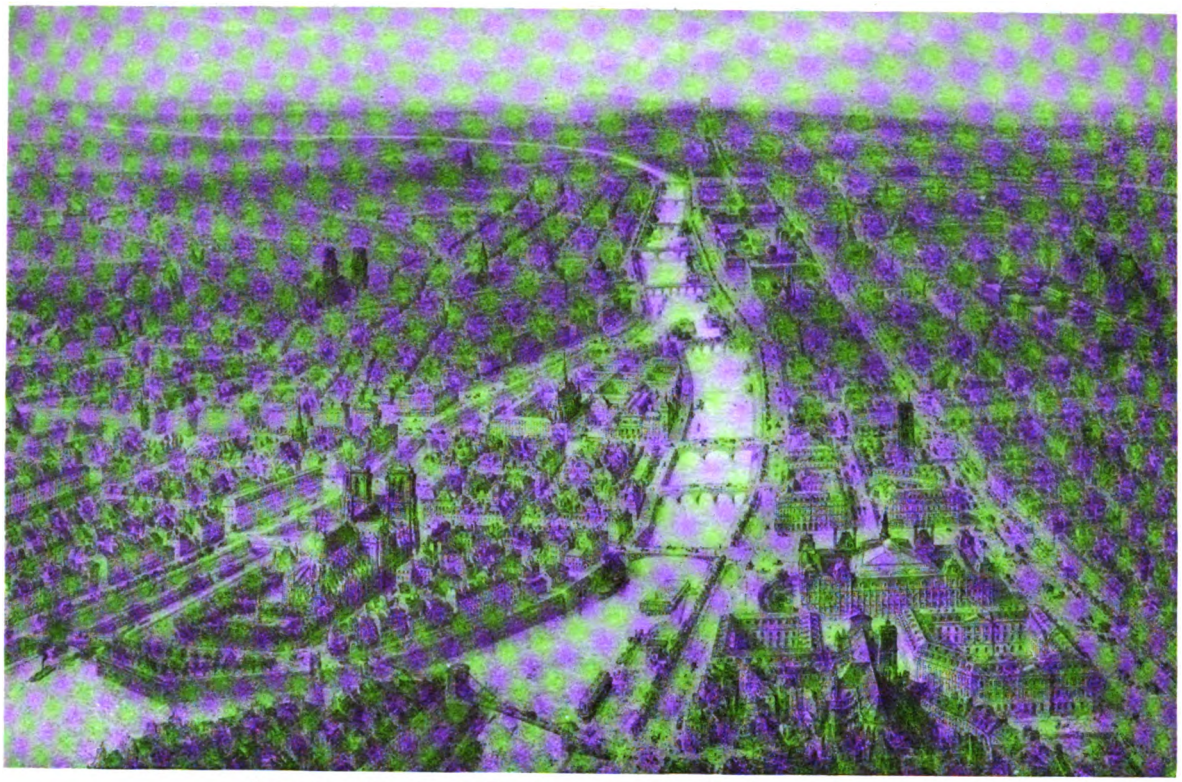
(*b*) *Improvement of the Means of Conveyance.*

The efforts to improve the public means of conveyance, which have been made in Paris during the last twenty years, have, as is well known, especially resulted in the construction of an extensive subway

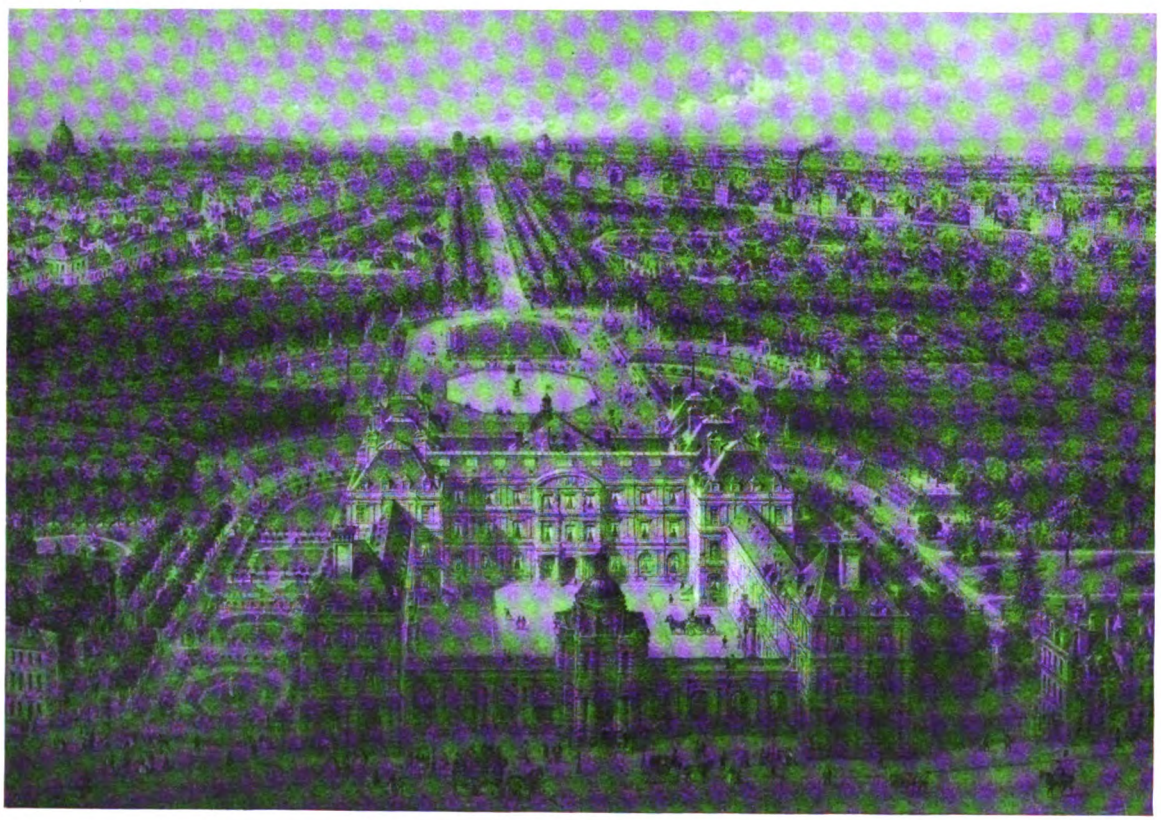


RUE TIRECHAPE, PARIS, 1863
After the etching by Martial

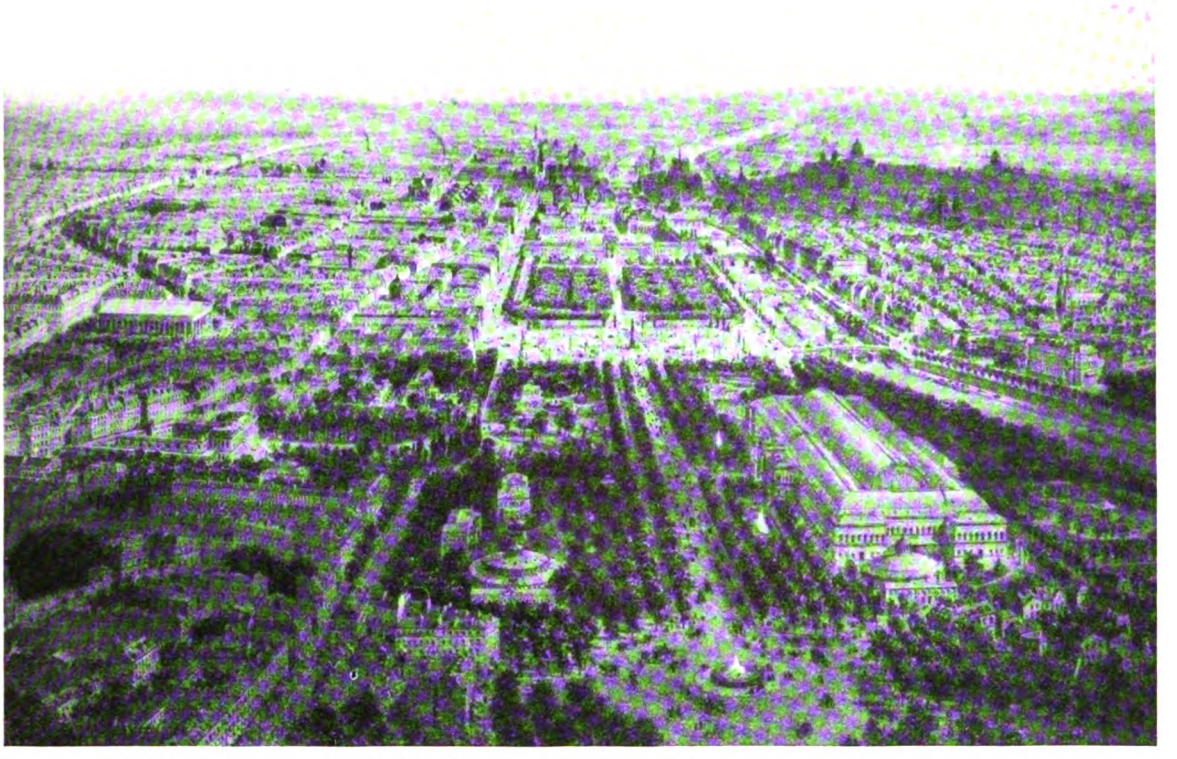
Cour du Dragon, Paris, 1866
After the etching by Martial



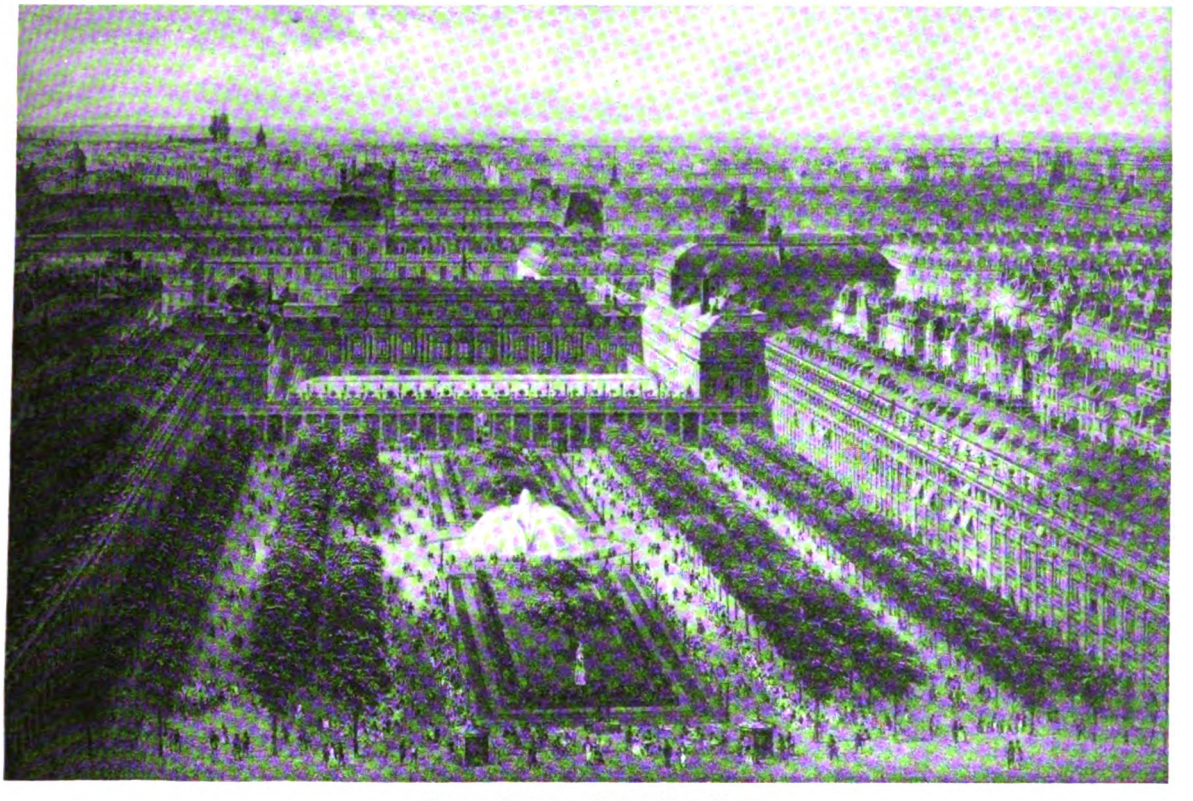
PARIS IN 1860.—BIRD'S-EYE VIEW FROM THE ST. GERVAIS QUARTER
Drawn by Felix Benoist. Lithographed by J. Arnout



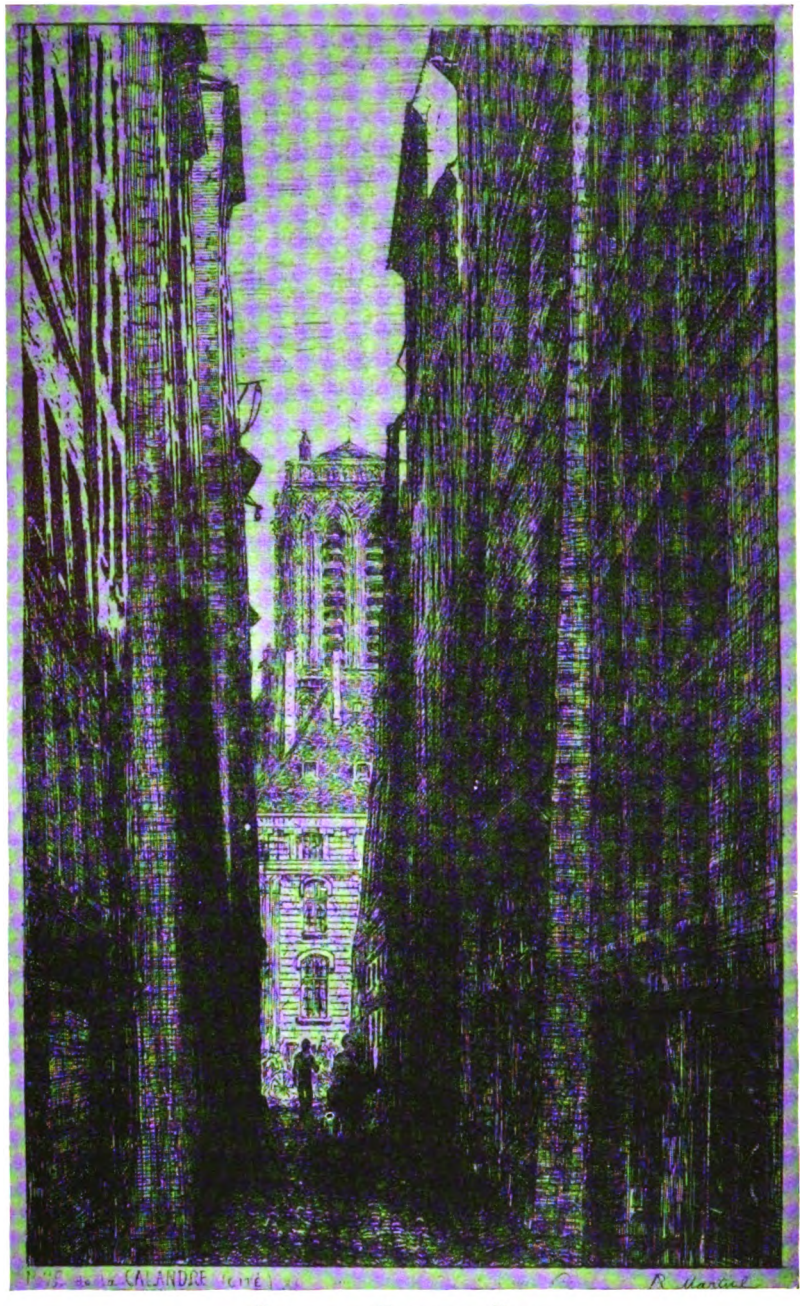
PALACE AND GARDENS OF THE LUXEMBOURG
Drawn by Felix Benoist. Lithographed by J. Arnout



PARIS IN 1860.—BIRD'S-EYE VIEW FROM THE ROUND POINT OF THE CHAMPS-ELYSÉES
Drawn by Felix Benoist. Lithographed by J. Arnout



PALAIS ROYAL.—BIRD'S-EYE VIEW
Drawn by Felix Benoist. Lithographed by J. Arnout



Rue de la Calandre, Paris
After the etching by Martial

system, considerably extended during the war, according to the original plans. In 1910 the construction of a number of additional lines was either authorized or proposed. The competitors will evidently be at liberty to suggest such modifications of these plans as they see fit.

The question regarding the extension of subway lines into the suburban areas has obviously been eagerly discussed. The programme says that "numerous propositions and appeals by the General Council (of the Department of the Seine) and by the suburban communities have demanded certain extensions of the 'Metropolitain' beyond the limits of the city," and the extension of subway lines to suburban points is in reality one of the most urgent operations of planning that Paris will have to carry through in the near future.

Besides, a great part of the suburban traffic will have to be cared for through creating or extending electric surface lines and through improving the service of the steam railways. In this connection it is interesting to note that the circumferential railway line, called "*la petite ceinture*," will either be modified or disappear.

(*c*) *Rebuilding of Unsanitary Quarters.*

As the city faces a great internal reorganization, sure to delocalize part of the population, it will be specially urgent to bring about conditions favorable to the suburban development. It is, to a great extent, in the outlying areas that the disturbing effects of the great interior operations will have to be offset. What proportions these disturbances will assume, will largely depend on the scope of those operations which aim at the rebuilding of unsanitary quarters. The programme sets forth the necessity of such operations, which will be facilitated through the recently enacted law regarding zone expropriation.

(*d*) *New Open Spaces.*

Equally desirable is the provision for a number of planted squares, small public gardens and playgrounds in the interior of the city. However, the authors of the programme seem to be somewhat pessimistic regarding the possibility of carrying out such improvements. "The constant increase of the land values makes operations of this kind singularly onerous," is their verdict. It remains to be seen whether some of the competitors will not present acceptable solutions, overcoming the financial difficulties, as the economic feasibility of such improvements, even on a large scale, has been established in practice. It should be mentioned that the preliminary suggestions of the "Commission d'extension de Paris" included plans for a number of small parks and squares in various parts of the city, their area aggregating 272 acres.

(*e*) *Park Reservations.*

It may be admitted that it seems doubtful whether any greater number of open spaces can be provided in the interior of the city. It will be all the more incumbent to make, without any delay, the greatest possible effort toward setting aside vast outlying areas for recreational purposes. To the solution of this problem the Commission on the Extension of Paris devoted much attention in the years preceding the war. Their suggestions proved that the great importance of the matter had been duly appreciated. The Commission proposed some very large outlying park reservations northeast, north, and south of Paris, comprising 7,540 acres. Connecting parkways between some of the reservations formed part of the scheme. Moreover it was proposed that the grounds of the modern fortifications [detached forts], many of which are to be dismantled, should be converted into parks and playgrounds.* The park area thus to be obtained was estimated at about 1,650 acres. In the aggregate, upward of 9,000 acres would, according to these schemes, be added to the present park area of the city, 4,875 acres. These projects of the Commission are binding on the competitors only inasmuch as it is declared desirable that the fortification grounds should be transformed into parks, and, partially, be reserved for the erection of detached dwellings surrounded by gardens.

(*f*) *Suburban Garden Cities.*

Toward the creation of "cités jardins"† with low-cost houses, in the suburban areas, the authorities have recently taken initial steps. At an expense of ten million francs the Department of the Seine has for this purpose acquired grounds at six different points outside Paris, the areas aggregating 457 acres. For some of these garden cities plans have been established. Moreover, the Municipal Council of Paris already several years ago, decided to appropriate two hundred million francs for improvement of the housing conditions of workmen. It is to be expected that the competitors will seize upon the opportunity to contrive really far-reaching, well-devised programmes and plans for improving the present housing conditions. Besides furnishing schemes for additional garden cities in the suburban and ultra-suburban areas, they are called upon to supply projects for building low-rent houses on part of the grounds of the old fortification circuit.

*Many of the forts are on all sides surrounded by suburban agglomerations. Some of them are so situated that their grounds would form part of the greater park reservations mentioned above.

†The words, the English translation of which is "garden cities," are a little misleading. The projects for Paris are in reality what we would call "garden suburbs," of which there are many in England. A garden city, of which Letchworth is the only pure example, is a community in which it is aimed to balance agriculture and industry so that the advantages of both shall be common to all workers.—EDITOR.

(*g*) *Schemes for a Park Girdle.*

According to the law governing the demolition of the old fortifications (which, since 1860, have demarcated the city limit), the city is bound to build on their transformed grounds a great number of low-cost or low-rent houses. Furthermore, military barracks are to be built on these grounds, replacing old ones in the interior parts of the city. Immediately outside the belt formed by the old fortifications, an almost continuous park girdle will be laid out, occupying the grounds of the former military zone subject to the service *non adificandi*. Several projects for transforming these grounds have appeared in the course of the years. The idea of a park girdle has had both proponents and opponents. Through the law on the demolition of the fortifications, the general lines along which this area is to be transformed seem to have been fixed in general accordance with the park-girdle scheme which formed part of the projects propounded by the Commission on the Extension of Paris. But it seems probable that alternative, modifying solutions will be proposed by competitors.*

(*h*) *Sundry Desiderata.*

Brief mention may be made of various other desiderata. The competitors are expected to make proposals regarding the establishment of new slaughter-houses and market-places. Les Halles, the great central market halls of Paris, are either to be enlarged or, preferably it would seem, to be replaced by similar establishments in more peripheral positions.

New up-to-date hospitals are required. Some of them might, to great advantage, be planted in the outlying areas.

A number of new school-houses, partly meant to replace old and antiquated ones, will have to be built. For a greater supply of gas, as well as electricity, provisions will have to be made through the construction of new plants. In this connection the programme mentions that, within some years, electric power will be transmitted from the Rhone River, 200,000 horse-power being available for the needs of Paris.

Important projects for increasing the water-supply are also being studied, and these projects will have to receive the attention of the competitors.

*According to the project of the Commission, the park area obtained through the transformation would total 1,480 acres. The width of the military zone, exclusive of the fortifications, averages 275 yards.

Locations for new cemeteries are to be proposed.

The sewerage and street-cleaning problems are to be dealt with. Finally, extensive plans for improving the water communications and for safeguarding the city against inundations have been considered. For the last-mentioned purpose, three large water-basins have been proposed, to be connected with each other through canals. It would be interesting, the programme says, to make these canals a means of beautification. For the improvement of the waterways, in the interest of traffic and commerce, it has been proposed to build new ports at three different points, one of them situated at a great distance from the Seine and to be connected with the river through old and new canals. A somewhat doubtful project, mentioned by the programme as having been considered, is the digging of a canal, about 27 yards wide, all around the southern part of the city along the former military zone. According to the programme it would contribute to the beautification of the zone and should partially be used for *sports nautiques*.

Right of Participation

French subjects and citizens of allied or associated countries, or of countries belonging to the League of Nations, may participate in the competition, which was opened on August 1, 1919, and will be closed on January 31, 1920.

The Jury

The jury will consist of eighty-one members and will be presided over by the Prefect of the Department of the Seine. The competitors will elect ten of its members. To examine and report on the projects, preliminary to the final decision, a committee consisting of sixteen members, will be elected among the jury.

The Rewards

Prizes aggregating 135,500 francs will be awarded. Besides, 30,500 francs may be spent in acquiring projects.

For projects belonging to the first section there are five prizes available, amounting to 30,000, 20,000, 15,000, 10,000, and 5,000 francs respectively. In each of the sections 2 and 3, three prizes will be awarded, respectively 10,000, 7,000, and 4,000 francs. Prize-winners in the fourth section will receive respectively 6,000, 4,500, and 3,000 francs.

The Housing Problem in Greater New York

THE last Bulletin of the Women's Municipal League of New York recites the notorious condition into which the city has drifted, in respect to its housing, and asks:

"What remedies have been offered to relieve the situation?

"It has been suggested: (*a*) That we 'ease up' with respect to the restrictions upon building which are imposed by our tenement house law and building code. This is no solution of the problem.

"It has been suggested: (*b*) That a fund be raised by general subscription to stimulate the erection of tenements to relieve the shortage. The fund has not been forthcoming: had it been forthcoming it could have helped only temporarily to cover up the defects in our system of production and distribution. The housing problem is too deep-seated to be solved by this method.

"It has been suggested: (*c*) That certain buildings and mortgages be made temporarily exempt from certain forms of taxation. This presumes that we are dealing with a momentary condition which is not the case. Tax exemption of the kind suggested is the same as giving an outright subsidy to the system of production and distribution which is responsible for the situation disclosed. Our underlying population, particularly our agricultural population, should not be called upon to support financially the work of making urban centers more congested.

"It has been suggested: (*d*) That a state department or bureau be established to aid in the solution of the housing problem through the collection and distribution of knowledge and information relating to this subject, and through the administration of state credit to be maintained for the purpose of stimulating the erection of adequate housing accommodations for the lower paid wage-earner. This is an essential element or factor in the solution of the problem, provided the use of state credit be directed toward the proper objective.

"It has been suggested: (*e*) That we remove the tax on buildings and tax unused land; or, that the city purchase in advance cheap land sufficient to house its future population. Conserving the increment of land value for the benefit of the community creating it is an essential element in the solution of the problem.

"It should be evident from this partial list of suggestions that the way to a solution of the problem is now not clear. Surely we must find a solution, but this necessitates discovering what has caused the present conditions. It likewise involves the establishment of a definite aim.

"A partial list of the causes which make for the inadequate conditions of living would include the waste occasioned by: (*a*) our lack of provision, that is to say, lack of foresight in planning; by (*b*) our system of business competition, resulting in duplication of equipment and effort; by (*c*) our socially useless effort, and by (*d*) the loss of increment of land value to those who create it. The prospective increment in land value is the driving force which makes for ever-increasing congestion. These are the chief underlying causes which operate to bring about our present difficulties.

"But what *is* our aim as regards greater New York? *Is* it an ever-growing population? *Is* it an ever higher degree of congestion? *Is* it a constantly diminishing area of open space? *Is* it more tenements, more slums?

"A rational solution of the housing problem must of necessity be based upon a rational answer to these questions. The answer may well start with the proposition that New York is already too congested. Our industrial and economic system has failed to provide sufficient habitations for our people; we cannot transport our population; we cannot educate our population.

"Our position, therefore, should be clear as to our attitude toward the various measures proposed. We must rid our city of slums through ever-increasing restrictive legislative measures, supplemented by what is known as slum-clearance schemes.

"At the same time, the state must assume a constructive attitude toward solving this problem. It can do so by the use of state credit at low rates of interest administered by a state bureau which will aid in the construction of homes on a large scale by limited dividend and coöperative association. The use of state credit, however, *must not be directed toward increasing the congestion of existing urban centers*. It must be directed toward the stimulation of new centers, adequately planned, but planned for a limited population and containing adequate space for recreation and for supporting agricultural activities.

"In order that the population of such centers may live in adequate houses, at rents within their means, it will be necessary in addition to the legislative enactments above suggested to eliminate (*a*) all speculation in land, that is to say, to reserve the increment for the benefit of those who create it; and also to eliminate (*b*) the unnecessary waste which follows from our system of competitive production and distribution."

The Future Conduct of Building Operations in the United States Army

REPORT OF THE SPECIAL COMMITTEE OF THE WASHINGTON STATE CHAPTER

THE Committee on Conduct of Building Operations in the U. S. Army, for the purpose of making a constructively helpful report, has made an investigation of the situation existing at present, and of the situation prior to the war and developments during the war, both leading to plans for the future which involve legislation now before Congress. In this investigation the Committee, of which every member has seen active service in the Army and has had actual experience with Government building, has duly considered the views of various officers who have been, or are now, directly connected with the problem and the work actually accomplished. This includes the information and recommendations given to Congress by an Assistant Secretary of War, the Commander-in-Chief of the American Expeditionary Forces and the Chief of the Construction Division of the Army. The Committee's findings are as follows:

Before the War

For many years prior to the recent war, the Army's building operations were conducted by departments of the Army, principally the Quartermaster Corps, organized primarily for work absolutely unrelated to construction. This building construction work, very considerable in volume and largely of a permanent character, performed as it was by officers trained and accustomed to the performance of duties totally unrelated, materially suffered therefrom. During the recent war a realization of the inadequacy of the established system led to the placing of this construction work, with maintenance, repair, and other problems directly connected therewith, under a distinct division, responsible directly to the heads of the Army, with officers selected and commissioned on account of their experience in various phases of the work required. The present and immediate future necessities of the Army call for a program of construction and related work, now devolving upon this separate Construction Division, conservatively estimated as involving a cost of $100,000,000 per annum, an amount exceeding the entire annual pre-war expenditure of the Quartermaster Corps, under which building construction work was then handled, for its total varied functions, such as construction, supply, transportation.

The Reorganization Question Now Before Congress

The question is now before Congress whether this separate Construction Division, equipped solely for handling building construction and work relating thereto, and made up of officers commissioned or assigned for qualifications in this service, shall be continued, or shall this work be turned over to other branches of the War Department organized primarily for different purposes, and with officers subject at any time to assignment to any of the various duties unrelated to construction, as before the organization of this separate division was effected. This cannot help but deprive the Government of the services of many officers especially qualified for building construction work, and will place this work under department heads primarily concerned with unrelated functions.

The Committee's Opinion

The Committee is of the opinion that this separate Construction Division, operative during the war, should be permanently established by the necessary legislation, special care being taken in the building up of its personnel with the sole view of obtaining those whose qualifications and experience in the engineering, architectural, and other fields relating to building would ensure the efficient conduct of the work. The Committee recommends that the American Institute of Architects, as a national organization vitally concerned in the proper conduct of building operations, should, as a national body, take active and immediate steps to ascertain the facts in connection with legislation proposed and use every effort possible to assist in promoting such legislation as would appear to place future building for the Army on the most efficient and economical basis.

Such action by the Institute is particularly important in view of the fact that future construction will undoubtedly be in the main of a permanent character in place of temporary structures erected during the wartime emergency.

The Committee also believes that the amount and importance of building construction in the Army is worthy of the constant and continued attention of the Institute and through committee or otherwise it should endeavor to coöperate with the Army officials to the end that mistakes in the past may be avoided and to secure for Army building in future the best practical results.

A. H. ALBERTSON,
JOSEPH S. COTE,
CHARLES H. ALDEN, *Chairman.*

Addenda

In connection with the above report, the following addenda was submitted by the Committee:

The Construction Corps must be made independent and not made a subdivision of the Quartermaster or any other Corps, for the following reasons:

1. In order to keep its reserve officers, who are technical experts from civil life. These men are not willing to go into the Quartermaster Corps as Reserves and run the risk of being assigned to work for which they are not qualified. These men will continue to be immediately available if the Construction Division is given an independent set-up.

2. The size of the Construction Division job is too large for it to be made a subdivision. With an army of 300,000 men, its expenditures would not be less than $100,000,000

a year. With such responsibility, its chief must have direct access to final authority. He will not have this if his department is not an independent corps. Any other arrangement creates needless red tape and destroys initiative.

3. The Quartermaster General's Office was a large and important one before the war, and yet the total expenditures through that office, including the pay of the Army, were less than $100,000,000 a year. The work of the Construction Division from now on will exceed in volume that of the entire Quartermaster General's Office before the war.

4. These are not fanciful figures. Before the war it cost $7 a month to give a soldier water, light, heat, sewage facilities, repair his house, and keep the grounds and roads about it in repair. Due to present high cost of labor and material, under similar conditions, this same service would cost $12 per month, or about $144 per year per man. With an army of 300,000 men, this item alone would amount to $43,200,000. Due to economies put into effect by the Construction Division, and the fact that this operative work is handled by experts, this sum will be reduced to about $30,000,000. In addition to this operation, maintenance, and repair work, some new construction must of necessity be done. It will not be possible to keep men in the Army and keep them satisfied, with no better accommodations than were provided in the temporary mobilization camps.

There are permanent quarters in the old Army posts for about 93,000 men and officers. Suitable quarters will have to be provided for the remainder of the Army. The temporary buildings at the camps which have already served the purpose for which they were built, that is the training of troops for France, cannot be made satisfactory for permanent occupancy. New and permanent quarters similar to those at the Army posts will cost from $1,500 to $2,000 per man, so it is seen that at least three or four hundred million dollars will have to be spent for the proper housing of the Army, regardless of whether universal military training is authorized or not. This work will, of course, be done over a period of years, using the temporary camps until the permanent housing can be constructed. It is estimated that the annual building program for this work cannot be less than $50,000,000.

5. During this war certain new branches of the service have been created, such as Chemical Warfare and Air Service. These new departments require a considerable amount of construction in order that they may function, and it is estimated that from ten to twenty million dollars of construction work, other than for the housing of the Army, will be required.

6. Summarizing the above, there will be under the direction of the Construction Division not less than:

$30,000,000 for maintenance, operation, and repair.
$50,000,000 for permanent housing construction.
$20,000,000 for construction other than housing.

$100,000,000 minimum total.

The responsibility for such an expenditure is too great to be placed in a subdivision of a subdivision. It can be more efficiently and more economically handled by a separate corps of specially trained operating and construction men, both architects and engineers. Such a corps can only be had if the Construction Division is continued as an independent staff unit.

(NOTE.—The officers of the Institute have this question under consideration, and it is likely that before this number of the Journal reaches its readers, the Chapters of the Institute will have received a communication from the Secretary on the matter.—EDITOR.)

The Housing Crisis in the United States

THE INSTITUTE ASKS THE PRESIDENT'S INDUSTRIAL CONFERENCE TO CONSIDER METHODS FOR COPING WITH IT

In connection with the present housing crisis in the United States, the Board of Directors of the American Institute of Architects have sent the following letter to the President's Industrial Conference:

Washington, D. C.
December 17, 1919.

TO THE PRESIDENT'S INDUSTRIAL CONFERENCE,
Washington, D. C.

Gentlemen:

The question of living conditions is seriously engaging the peoples of every civilized nation. In the United States, as elsewhere, the problem has been forcing itself upon public attention for many years, and even before the war, the measure of its gravity was steadily increasing. Today, due to the impact of factors strikingly emphasized by the five years of war, this nation finds itself confronted with problems of the greatest perplexity, every phase of which may be said to relate to living conditions.

The house, and the home, must be accepted as the base around which the problem revolves. No solution of our industrial unrest can be possible until the primary requisite of shelter is acknowledged as a crucial factor. In principle, it may perhaps be said, without fear of contradiction, that we are faced with a shortage in dwelling-places of formidable proportions. Likewise it may also be said that no satisfactory plans for meeting this shortage have as yet been advanced.

No figures are at present available to indicate the measure of the need for new dwellings. In New York City alone it has been computed by careful survey that no less than 30,000 new dwelling-places are needed to care for the present shortage. Almost without exception, every great city reflects a like condition.

The causes for this condition are no doubt many and various. They relate to the war, to the cost of building, to wages, rents, land and building speculation, and, incidentally, to the whole fabric of our industrial system.

The house and the home are an indissoluble part of the National fabric. They cannot be isolated and studied as detached symptoms. They must be considered as a part of the whole problem, and we believe that the Government of the United States should at once take steps toward the making of a complete and impartial investigation into the problem of providing adequate shelter for its increasing population.

A vast field of experience, as developed in other countries, lies ready for cultivation. The advances made by other peoples, as expressed in such recent legislative enactments as the English Housing Act of 1919, the Canadian Act of 1919, the Saskatchewan Act of 1919, the proposed New Zealand Act, together with the exhaustive studies and reports issued by these and other countries, provide a large amount of information which is vital to any clear conception of the magnitude of the problem. By combining the experience of other nations with that gained in our own country through the work done by the Government itself, as a war measure, we believe that there can be constructed a comprehensive report which will deal with the problem in an adequate and intelligent manner and which will be of infinite value to the hundreds of perplexed communities that are now seeking information and light.

Such a report, to be of any value, must be made by a group of men and women qualified to deal with the facts in a fearless and straightforward manner, for it is only through an impartial presentation of all the evidence that there may be gained any broad National understanding of the extent of the problem and the principles involved. We do therefore urge upon your consideration the creation of a competent agency for the making of this sorely needed study. Various bills introduced into the last Congress indicate that the need for governmental action has already been felt, but action, to be most useful to the people of the United States, should not longer be delayed.

For this pressing problem of housing we bespeak your earnest consideration, and we shall be glad to present evidence in support of our contentions if you so desire.

Very truly yours,

WILLIAM STANLEY PARKER, *Secretary*.

By order of The Board of Directors, American Institute of Architects.

Correspondence

"Bolshevik or Mammon?"

TO THE EDITOR OF THE JOURNAL:

In reference to the resolution of the Board of Directors on the subject of draughtsmen's unions, as published in your columns last month, may I offer the following as expressive of my reactions to the resolution in question?

Yes, it is true. The draughtsmen are organizing unions. They are affiliating with the American Federation of Labor. The profession appears somewhat concerned about it. Not that the matter has come in for much open discussion, but it is talked about and talked about quite seriously.

It would appear, if one may judge by the whispered opinion, that it is deemed a pity, a pity in particular that these unions should affiliate with the American Federation of Labor. It appears that these draughtsmen who are organizing unions have been infected with the insidious propaganda emanating from Europe—from Russia—which if it "takes" is going to be a serious matter. But it likewise appears that no one knows what should be done about it; at least so much may be gathered from the talk thus far.

Of course it is a move which is frowned upon and deprecated, for has not organized labor, unionism, always stood for a selfish, greedy policy of demanding a high wage for short hours of work? and has it not stood for standardized pay? And besides is not architecture an art? and are not all of those engaged in it of a higher degree of intelligence than "common labor?" and why should the draughtsmen demean themselves by such tactics? And, furthermore, are not these draughtsmen who are organizing the unions the potential architects of the future? Is it not making their own road a more difficult road to follow? These are a few of the questions suggesting reasons of a negative character which are advanced by those who view this drift of affairs from the narrow confines of their own office and not from the vital point of view which embraces the totality of the profession.

But what is the significance of this tendency to organize around the purposes which have gradually crystallized in the "world of labor?" Does it only signify an "infection," as we say? Is it merely "something in the air?" Is it simply "unrest" which has arisen as a result of the return to what we speak of as "peace" and which will disappear once we have "stabilized conditions" and reduced the high cost of living?

Those smug people who look upon the "world of labor" and its long struggle of "emancipation" as a force essentially evil, which has arisen in the modern world without cause or reason, are inclined to look upon this drift as an infection, an infection which might be halted if we could only force the working of our institutions back into the old grooves. Such people, though somewhat fearful of what may happen, stand firm and hope that by sheer weight of suppression and the power of our institutions, economic and conventional, they can arrest this movement. And with such ideas in authority we blunder on from mistake to tragedy.

But leaving the great world of intrigue and hostilities aside, what is the significance of this drift of affairs within our own little professional household? *What does it mean?*

We are ever debating this question: Is architecture an art or a business? Here, in this answer expressed in a tendency to organize, long before we have ceased our discussion, and while we are still inclined to rate architecture as art, we are confronted with the answer which confutes us. Architecture is a business; at least it is as a business that we have come to practise it. For is it not true that we

are carrying on our practice under the guiding principles of "modern business enterprise," accepting the ratings as applied under the "principle of business" as the scale of appraisal by which our work is to be judged? Are we not engaged, though we struggle against it, in the time-honored first principle of business enterprise, price competition? Are we not operating under the wage system? Are we not merely the decorating department of "modern business enterprise."

We have lived a long time in a sort of delusion that somehow we could ward off the approach of Mammon,—that we could carry our work on in comparative isolation and keep art secure from contamination.

Is it not time to throw off this delusion and endeavor to discover where we have drifted? Who has been infected? Is it the architect or the draughtsmen? Who has gone Bolshevik? and who has gone Mammon? It is not my purpose to debate that question, pertinent as it is to the issue. The only matter worth considering is what can be done with this accumulating force and toward what should it be directed.

Notwithstanding the great body of fallacies which have been dragged in from the past; notwithstanding the utter disregard of the professional body for the underlying industrial condition out of which alone it is possible for an art to arise; notwithstanding the failure of the profession to make use of its knowledge in affecting a more adequate physical environment; notwithstanding all the shortcomings and failures, it has always, until now, been animated by a guiding impulse which somehow must be kept alive.

What has animated the true architect is the creative impulse, and until now that impulse has not been contaminated to the point of completely obscuring it. True, it has been contaminated and partially obscured, and, in the progress of time, architecture itself has violated it, but, even so, until the present day it has stood firm.

In a limited degree today the architect achieves his result through the working of creative impulses; but these impulses are constantly being restricted and narrowed. Thwarting his every move toward the development of an adequate material environment, expressive of the social impulses and the needs of rational society, stands a wall of artificial economic and financial barriers erected by the selfish purposes of "modern business enterprise" and speculative gain. Modern industry, price-competition, machine industry, all driven at high speed and all driven for quite another end than the simple purpose of producing articles needed by society, stand also as a barrier thwarting the free operation of the creative impulse. But, even so, with all the restrictions placed upon his effort by our predatory institutions, he still has his opportunity to invent and create. Within these limitations he is free. But free as he is within these limitations, he is forced to exercise this freedom under the guiding principles of "modern business enterprise" such as (e. g.) "time is money." And, of course, he operates his office under the wage system, and what he gets out of it is the remainder after he has paid for the "labor." The system is the modern factory system.

Now this attempt of the draughtsman to organize as a body so as to exercise some control over the conditions of employment may be explained by a great number of reasons. There is a tendency to subdivide their work into many processes, and to use men month after month and year after year for the same purpose; there is practically no effort on the part of the profession to teach draughtsmen the profession, in the office; educational institutions are for that purpose. More and more are draughtsmen being employed, as other labor is employed, in industrial processes by businessmen. These reasons are all of a secondary nature, or, rather, they come in as a part of the larger reason why the practice of architecture has taken on the character of business. This attitude on the part of the draughtsmen is to be looked upon, not as an infection but as the inevitable outcome of the condition which differs only in detail from that condition brought about by the rise of "modern industry and machine technology."

But what to do is a difficult question to answer. It is a difficult question to answer by suggestions which would be in accord with the guiding principles of "business enterprise." Business enterprise stands pat in support of the system that has brought on the entire list of mal-adjustments. Standing pat would therefore appear as a constructive policy looking toward an aggravation of the situation. Not much comfort is to be had from that suggestion.

But if we should, just for a moment, turn our backs upon the time-honored "principles of business enterprise" and take a peep through the door which looks toward guild organization, it might be that we would discover that there is something in the idea of forming a vocational organization strong enough to take over the carrying on of the work for which it is fitted. It might be that we would discover that the purpose for which the draughtsmen are organizing is the same purpose for which we should organize. And, further, that the force of these young men who are somewhat more daring is what we need to keep our entire profession from going over to Mammon.

FREDERICK L. ACKERMAN.

A Correction from Mr. Alden

Mr. Charles H. Alden, Chairman of the Committee of the Washington State Chapter whose report on army construction appears on page 38, and who was quoted in the last number of the Journal as having said that "the Engineering Corps is to take over entirely all construction, including the work of the Construction Quartermaster," advises us that we have incorrectly quoted his words. The proceeding in question was the proposal of the Army Staff, which differs from the recommendations of the Chief of the present Construction Corps of the Army and the opinion of the Assistant Secretary of War appearing before Congress. Mr. Alden also asks us to say that he addressed the Washington State Chapter in his capacity of member of the Institute.

We offer our apologies for the misreading of his words and believe that the whole matter is now made clear in the report of the Committee to which we have referred.—EDITOR.

Book Reviews

Brick Architecture of the Colonial Period in Maryland and Virginia. By Lewis A. Coffin, Jr., and Arthur C. Holden, New York. Architectural Book Publishing Co. 1919.

Whosoever has attempted to gather the records of architectural development in the South will appreciate the evident labor that has gone into the making of this book. Even with the goodly measure of generous hospitality, as recorded by the authors, which one is likely to meet, there are difficulties of inaccessibility such as only the South can still boast.

The authors express their regret at the gradual disappearance of an architectural development and add: "It is the more regrettable when is seen the pride that has been stamped indelibly on every house and garden, the mute evidences of the love those families bore to their home." This raises an interesting question, and one which architects, as a rule, do not care to discuss, but the fact is that these houses and gardens were the expression of a form of luxury (even the authors admit the tendency to decadence) which could grow only out of an aristocratic tradition coupled with a system of working the soil such as has impoverished Virginia beyond all belief. Never was there a more riotous lavishness and a greater carelessness of the deluge that was to come after. It has been said by experts that only a hundred years of assiduous care and cultivation would restore the soil productivity of a land from which corn and tobacco had drained the last atoms of plant nourishment.

The writers of the book do not by any means ignore this feudalism and truthfully state the case, but it does seem inconsistent to read that "to understand their life is to understand the planning of the houses, the grouping and layout of outbuildings for kitchen, storehouses, slave quarters and the like, as well as the monumental scale of terraces and gardens," and then to come upon the concluding lines of the text which are these, in reference to the book itself: "If it shall awaken at all a love for these old grand houses, and shall stimulate at all a demand for correctness of style, so much more will it be a satisfaction and we venture a benefit to a truly American architecture."

The definitions of what is truly American are multiplying with astonishing rapidity, but somewhere or other we seem to remember some sayings of Abraham Lincoln which do not quite accord with an interpretation of "truly American" based on aristocracy and slave-owning. As to "correctness of style," is it possible that we are to study a mode of life which is now extinct in order to know what to do next. I remember what Waddy Wood said in reviewing Lancaster's "Historic Virginia Homes and Churches:" "I would recommend that architects whose clients are thinking of building a Colonial house should read this book to see if the client will fit the building they desire."

Aside from the somewhat archaic deductions to which I referred, the book will no doubt prove interesting to architects who are not already pretty familiar with the field covered. The measured drawings are numerous and the photographs, although generally lacking in quality, are plentiful.—B.

Were You Ever a Child? By Floyd Dell, Alfred A. Knopf, New York City, 1919.

If I recall correctly, it has been stated with a certain amount of emphasis that what our profession should *not* do is to form an opinion concerning our present system of elementary education. For education which does not concern itself with the technical processes of educating the architect is not a matter of our concern, nor are we competent to advise regarding it. We are not even to concern ourselves with vocational education, closely as that relates to the production of architecture.

Nor are we to have an opinion regarding "labor" for what has labor and the problems of labor to do with architecture? Is not "labor" an obstruction, and why should we involve ourselves with controversy when our sole task is that of designing buildings?

But if we thus shut ourselves off from the world about us where thought is generated, that world will discover that we have done nothing by way of contribution and pass right on, leaving us with the other junked ideas and institutions which have outlived their usefulness. Because of a suspicion that we are already just a little behind in the procession made up of people and groups of people who are very earnestly seeking through inquiry to discover the way out of the present muddle by thinking, I recommend the reading of this little volume. It sets out so vividly (and so humorously) what really constitutes that system of education, so sacred and so absurd: it throws a great deal of light, in fact, upon that vexing labor question which we are advised to shun because it is a controversy between greedy workmen and conservative, substantial men of affairs, and really has nothing at all to do with the production of architecture.

I would not look for a right about face as a result of reading this volume, but I would expect those who entertain doubts to become somewhat more doubtful. As for the younger generation who are emerging into the present flux and state of confusion, if it does not make significant the absurdity of the rigmarole through which they have so recently passed; if it does not tend to make the younger generation about face, then I misjudge the book. Of course in a book review one should say more about what it contains. I therefore quote from the paper cover a paragraph which is a truthful statement as regards the contents of the book.

"It attempts to show how the present school system became what it is, and why it is now in the throes of revolutionary change. It analyzes the current conceptions upon which the existing system is based, and shows why these conceptions are inadequate to sustain the burden which education is called upon by twentieth-century civilization to bear. It centers attention upon the two things which constitute, in their juxtaposition, the essential problems of education—namely, the nature of modern life and the nature of the child."—F. L. A.

News Notes

Congress and the United States Housing Corporation

On December 18, Senator Fernald, of Maine, Republican chairman of a subcommittee of the Senate Committee on Public Buildings and Grounds, submitted a report on the activities of the United States Housing Corporation, which was the owning and operating division of the Bureau of Housing of the Department of Labor. The other members of Senator Fernald's committee were Spencer (Mo.) and France (Md.), Republicans; Ashurst (Ariz.) and Trammell (Fla.), Democrats. The contents of this report, together with those of the report of a similar committee in the House, presented a day earlier, were seized upon by newspapers generally as examples of the extravagance, incompetency, and waste of war administration. In both of the reports mentioned, architects came in for sweeping castigations. It was even recommended by Senator Fernald's committee that civil suits be brought against them to recover alleged overcharges and profits. The Housing Corporation was severaly condemned. The House voted to abolish it, and the Senate will probably take like action.

Without the shadow of a wish to excuse or exonerate any proven incompetency, dishonesty, or corruption on the part of the Housing Corporation, or the professional men employed by it in various capacities, or to ask that the feverish haste and unavoidable waste of war be urged as condonement for wrong-doing, the following considerations must be taken into account in any valuation of the report in question.

First: Senator Fernald's report appears to stigmatize the fee-plus-cost method of paying architects as suspicious, if not actually dishonest. On the contrary, it is recommended by the American Institute of Architects, used by its members, and can easily be defended as the fairest method known of charging for professional service. It involves a stated fee, paid for the service of the architect, and provides that the client shall pay the cost of the draughting-room charges, plus the proper share of the office overhead. The draughtsmen keep time cards to show the cost of their work. The overhead, which means rent, heat, light, telephone, typewriting, postage, and supplies consumed in an architect's office, is calculated by experience. In the usual run of architects' offices, it is known to be almost the same as the cost of draughting, hence it is usual under the fee-plus-cost system to add 100 per cent for overhead. This was the plan adopted by the Housing Corporation as the fairest one known. The percentage system would have been totally unfair to the Government. But what could have been fairer than to have employed the architects on a salary and pay the proportionate cost of running their offices while they were used for war work? That was what the Housing Corporation tried to do, and no fairer method could have been worked out. That it was not absolutely fair may not be denied. Some offices may have profited under the 100 per cent charge for overhead; others certainly lost. But the Government could not have made a fairer arrangement under the circumstances, and when a Senatorial report says that "For each additional dollar spent in draughting expenses the architects received an additional dollar for 'overhead,'" and that "over $200,000 was paid to architects under this provision," and that "civil suit should be brought against the architects to recover these sums, less, of course, the actual overhead," the profession may well resent a statement so grossly unfair. It does not explain the actual method of payment and the reasons why it was adopted. It leaves the profession under a grave suspicion.

Where the method was abused in order to increase the architect's revenue, action might well be taken to recover the amount involved. No respectable architect would think of defending such a practice and none would be quicker in demanding that the guilt be proven and punished. But an intimation that the profession generally profited from its war contributions is neither fair nor dignified. It is conspicuously unworthy of such a body as the Senate of the United States.

However, it is quite impossible to gain any clear idea of questions and issues such as these without a full understanding of the present involved political situation in Washington.—C. H. W.

The Nebraska Chapter is continuing its study of the proposed zoning law for the city of Omaha.

President C. H. Hammond, of the Illinois Society of Architects, has made an extensive report on the subject of zoning, after an inspection tour of over a fortnight in the United States and Canada. He recommends the appointment of a commission of approximately fifteen experienced members, and with provision for employing qualified experts in the making of surveys and the drafting of a zoning ordinance. He urges that no piecemeal effort be attempted but that the whole subject be thoroughly studied and analyzed before any action be taken.

The Executive Committee of the Illinois Chapter and the Washington State Chapter have taken action in approval of the Tinkham Bill (H. R. 7014), designed to create a Bureau of Living Conditions at Washington, as an agency for collecting and distributing information on living conditions.

It was suggested, at the November meeting of the Minnesota Chapter, that there was need in Minneapolis of a new architectural club which should seek an educational as well as a social program. It was resolved that the Chapter heartily endorse the formation of such a club for architectural draughtsmen and architects, and that the initiative be taken by the younger men and not by the Chapter, not only in the formation but in the administration.

At the last meeting of the Southern California Chapter, the City Planning Committee, Mr. Withey, Chairman,

reported that the City Planning Ordinance called for by the Mayor had been drafted and was in the hands of the Welfare Committee, with action pending.

In response to a request from the Los Angeles Chamber of Commerce, the Southern California Chapter has appointed Messrs. Rosenheim and Hunt as members of an advisory committee to work with the Chamber of Commerce in the consideration of the establishment of new industries in the city, the committee to supply data and technical advice in relation with such problems.

At its last meeting, the San Francisco Chapter voted that a campaign, advertising the profession in the weekly building sections of the daily press, be inaugurated.

In support of the new zoning regulations for the city of Portland, the Oregon Chapter, at its November meeting, passed the following resolution: "That with over $300,000,000 already invested in Portland buildings and real estate, and with the certainty of added hundreds of millions of dollars in the coming years, the Oregon Chapter of the American Institute of Architects endorses a plan of city building and zoning that will tend to conserve and protect property and home values, because permanence and stability can only be secured by a farsighted building plan which will harmonize the private interest of owners and the health, safety, and convenience of the public, and it is further

"*Resolved*, That it is the sense of this meeting that the zoning work and plans of the City Planning Commission be accorded hearty support."

It is announced that the Chamber of Commerce of the United States has bought the historic Corcoran residence on H Street, opposite the White House, and that it will there erect a new building to house its activities. The property stands at the corner of Connecticut Avenue and has been owned, at various times, by men of prominence, notably Daniel Webster and Francis Scott Key. While the property in question was designated in the plan for the development of Washington, which fixed the executive center as surrounding the park in front of the White House, it is hoped that the new building in question will be in keeping with the architectural program outlined in the plan, even though it now seems that the realization of that program, in its entirety, may no longer be looked for. The architect of the new building is Mr. Cass Gilbert.

On the morning of December 4, the French Opera House of New Orleans was burned practically to the ground, only some of the walls remaining to surround a heap of ruins. This structure may be said to have been far more than historic, for it marked more than a period of American history. Since 1859, when the building was erected from the plans of Gallier and Esterbrook, the French Opera House has preserved a very precious tradition—one that is remembered by every visitor to New Orleans who has had the good fortune either to hear an opera or to attend the grand ball of Mardi Gras.

In a future issue we hope to devote further space to the passing of the French Opera House. It has more than a passing interest to architects and many members of the Institute will remember how much it contributed to the enjoyment of the Convention held there in December, 1913.

The demand for modern offices in London far exceeds the supply. The number of good office buildings in London has always been small, for Londoners have been quite willing, apparently, to jog along with what they had. On the other hand, where can there be found such charm of surroundings and quiet as still makes office work pleasant in London. In Fields, Temples, Courts, and Gardens thousands may still look out upon green spaces and have their ears unassailed by the pandemonium of any American business district. What a pity if these joys must give way to the new demand. Here indeed would seem to be a field for the resourcefulness of architects.

On the evening of November 8, the San Francisco Architectural Club celebrated the completion of its new club rooms by a dinner given in honor of the members of the San Francisco Chapter. The new rooms are to be occupied jointly by the Club and the Chapter, and the evening gave promise of a future coöperation between the two bodies in educational and other work.

Mr. Edward W. Donn has accepted the chairmanship of the Basic Building Code committee in place of Mr. D. K. Boyd, resigned.

It is cheering to know that although 33,000 kilometers of French railway lines, together with 1,180 bridges, were destroyed during the war, M. Claveille, the Minister of Public Works, announces that the lines have practically been restored. Of the 48,000 kilometers of highways destroyed, 12,000 have been completely remade, while of the 3,130 bridges ruined, the majority have been reconstructed. Most of the work was done during the war, although 373 wooden and 111 metal bridges have been built since the armistice.

The Metropolitan Museum of Art, in New York, announces an exhibition of French paintings, sculptures, drawings, prints, and examples of the decorative arts, selected as representative of the art of France today. The exhibit comes under the auspices of the French Government, and, although its reception has been delayed, it is expected to announce the opening shortly.

Twenty cities of Ohio having a population of over 20,000 were invited to participate in a state conference on city-planning at Cleveland, the result of which was the adoption of the following legislative program: "(1) Bill authorizing all cities to adopt zone plans. (2) Bill to permit city-planning authorities to coöperate in the development of regional plans. (3) Bill to permit municipalities to condemn land for any public purpose and to assess one-half of cost on property benefited. (4) Constitutional amendment to facilitate taking of property for public purposes by providing 'that in the taking of property for street purposes the enhancement in value owing to the opening or widening of the street accruing to the part of

an owner's property not taken may be considered by the jury in awarding compensation for the part taken.'"

It is not intended immediately to press such bills in the legislature but to urge them at such times as may seem wise.

THOMAS W. LUDLOW, formerly of the School of Architecture in McGill University, Montreal, has been appointed Assistant Professor of Design in the School of Architecture at the Carnegie Institute of Technology. Professor Ludlow, recently discharged from the Canadian Army, is a graduate of Columbia University and studied at L'Ecole des Beaux Arts, Paris.

THE English press announces "The World's Biggest Cinema Studios," to be erected on the outskirts of London. The main floor will be 150 x 200, constructed with no supporting columns, and containing in the center a sunken water pool 50 x 100, and 6 feet deep. When completed, six producers may work at the same time, and to that end the building is to be equipped with every known scientific device. The lighting is to be especially studied; it is said that 500,000 candle-power may be concentrated at any given point.

THE evidence continues to point at the very unsatisfactory progress of the British re-housing programme. It is reported that the Cabinet Committee on Housing is already recommending great changes in the plans, including a subvention to builders of fourpence a cubic foot. Of course this is only another desperate compromise, but the seriousness of the situation calls for any measures that will produce houses. At all events, it seems pretty clear that the pre-war promises of decent houses and living conditions are not likely to be realized in any large measure.

THE state of Pennsylvania has created an Art Commission, the purpose of which is disclosed in paragraph 5 of the Act: "From and after the approval of this Act, no public monument, memorial, building, or other structure shall become the property of the Commonwealth or any subdivision thereof, by purchase, gift, or otherwise, unless a design for the same, and the proposed location thereof, shall have first been submitted to and approved by the State Art Commission." The second clause of the paragraph makes the same provision in respect to buildings erected with state funds, providing that they may not begin until the plans have been duly approved by the Commission. The third clause is as follows: "No monument, memorial, building, or other structure, belonging to any person or corporation, shall be erected upon or extend over any highway, stream, lake, square, park, or other public place, within any subdivision of this state, except the design for and the location thereof shall have been approved by such commission." The cities of Philadelphia and Pittsburgh, having their own City Art Commissions, are exempt from the Act.

This legislation, which seems to be very sweeping in character and which will no doubt be challenged in court in time, also provides for the payment of the necessary expenses incurred out of the public funds. The members of the Commission are Nicola d'Ascenzo, Edward B. Temple, C. C. Zantzinger (Chairman), Philadelphia; Benno Janssen, Pittsburgh; John A. Dempwolf, York.

THE perennial assault on Boston Common has again taken place. Because of the increasing congestion of traffic (100 per cent greater than in 1914), the Street Commissioner, supported by the merchants located on the east side of Tremont Street, has come forward with a proposal to widen the street to a uniform width of 43 feet between Park and Boylston streets, the necessary land to be taken from the Common. The street is 43 feet wide from Park to West Streets, where it narrows to 38 feet at its junction with Boylston street. The Boston Common Society, which makes it its business to guard the Common in all ways, after much debate, has given consent. The Boston Planning Board, of which Ralph Adams Cram is the head, has concurred and it has been decided to offer the plan by referendum at the coming city election.

The natural and understandable fear that this first slicing may be the forerunner of others has suggested the erection of a substantial fence on the proposed new curb, which it is hoped will form a successful barrier against any further relief to the swarming Bostonians of the future. The Planning Board has a much more far-reaching and radical solution of the whole traffic movement in and out of the city and regards this widening of Tremont street as only a palliative and as hardly touching the real problem. —*Communicated.*

AT the December meeting of the New York Chapter the question of what attitude architects should take toward the draughtsmen's union movement, either singly, or through the Chapters, or the Institute itself, formed the basis of an animated discussion. The debate was set in motion through the reading of the report on the subject, made by Mr. Hewlett to the Board of Directors, as the conclusions of the Committee of which he was chairman, and which was appointed by the Board to make a study of the general situation.

Draughtsmen affiliated with the union in question were present and stated that it was their hope that the union would not join the A. F. of L., although there was a considerable group of draughtsmen who did wish to have the union take such a step.

In general, the report argued against unionization of any kind, and it was vigorously suggested that the Institute should pronounce unalterably against the closed shop. In support of this contention, it was stated that the whole attitude of trade unions was opposed to art—that their regulations regarding an arbitrary division of work among the various trades tended directly toward the death of any art productivity.

Opposed to this point of view were those who contended that the trade union was a symptom and not the true malady; that in choosing the closed shop idea, the unions were merely picking up the weapon that seemed most effective under the conditions obtaining; and that the root of the real disease lay clearly in our industrial system as a whole. The history of the industrial revolution which first took place in England was cited as evidence to this effect, and it was strongly urged that architects would do well to look much deeper than the surface if they cared to

discover the real meaning of trade unionism and of the general blight which the competitive industrial system has cast over the development of architecture, the arts, and even of living conditions.

The subject was left without any definite action, and a summary of the discussion will be sent to the members of the Chapter as a basis for further consideration at the Chapter meeting in January.

THE Associated Industries of Seattle presented to the Washington State Chapter a declaration of principles and asked for their ratification by the Chapter. The subject was warmly debated, with the adoption, by a vote of 11 to 4, with one present and not voting, of the following resolution:

"That we favor unions of labor, but not as present constituted. Any organizations within or without labor, seeking to obtain ends by other means than those provided through our present form of government, are without patriotism, are seeking to destroy the country, and we can take no part or council with them. Therefore, we, the Washington State Chapter American Institute of Architects, endorse the following Declaration of Principles promulgated by the Associated Industries:

"Believing that labor and capital are partners, not enemies; that their interests are common, and that neither can attain the fullest measure of prosperity at the expense of the other, but only in association with the other, we declare:

1. "That the purpose of industrial activity is to advance equally social and material well being; to protect the employee as respects wage, living, and working conditions, management and capital as respect adequate recognition and just compensation, with full consideration that the interest of the public, however engaged as a failure in any of these particulars, results in economic loss, detrimental to society as a whole.

2. "We recognize that every man is entitled to an opportunity to earn a living, to fair wages, reasonable hours of work and proper working conditions, and that the responsibility rests equally upon government, society, and those engaged in industry to see that these conditions and opportunities prevail.

3. "Industry, efficiency, and initiative, wherever found, should be encouraged and adequately rewarded—and indolence and indifference should be discountenanced.

4. "The provision of adequate means of uncovering and promptly adjusting grievances is of fundamental importance to the successful conduct of industry.

5. "The most potent measure in bringing about industrial harmony and prosperity is adequate coöperation by the parties in interest. Existing forms of representation should be carefully studied and availed of, in so far as they are found to have merit and are adapted to the peculiar conditions in the various industries.

6. "The application of right principles never fails to effect right relations. Forms are wholly secondary, while attitude and spirit are all important, and only as the parties in industry are animated by the spirit of fair play and justice to all, will any plans which they may mutually work out succeed.

7. "That man renders the greatest social service who so coöperates in the organization of industry as to afford to the largest number of men the greatest opportunity for self-development."

FROM February 17 to 19 inclusive, there will be held at the Auditorium Hotel in Chicago, a National Conference on Concrete House Construction, to consider the housing problem in the United States and Canada, and to present, crystallize, and make available information regarding the most modern practice in the construction of concrete houses and concrete housing projects. It will give attention to methods of financing home-building, community planning, and fire-protection.

New Members Elected

W. Orrin Bartlett, Newark, N. J.
Robin B. Carswell, Fort Madison, Iowa.
Mortimer B. Cleveland, Waterloo, Iowa.
Edward F. Hoffman, Jr., Philadelphia, Pa.
Alvin Frederick Menke, Seattle, Wash.
Burton E. Morse, Twin Falls, Idaho.
L. L. Rand, Spokane, Wash.
Niels Chester Sorensen, Detroit, Mich.
Lee Thomas, Bend, Ore.
Frank Upman, Washington, D. C.
W. F. Shattuck, Chicago, Ill.
Harold Greene Sprague, Des Moines, Iowa.

Obituary

Thomas F. Huber

Elected to the Institute in 1914
Died at Toledo, Ohio, December 3, 1919

Mr. Huber was well known to many of the older architects of the city; I had known him from the time of his entrance, as an architectural student, in the office of the late N. B. Bacon, some thirty-five years ago. He was, in character, not meteor-like, lighting the way with a blinding brilliancy instantly to subside into impenetrable darkness, but a constant, reliable beacon to be followed with utter confidence. He imbibed and followed closely, through the years of his practice, the methods and precepts of the office in which he studied. To him, always a conscientious, indefatigable worker, success meant hard work and continuous application, no visions, no dreams, no air-castles; he applied business principles to the practice of architecture and made architecture a business, in contradistinction to art. He was a man of integrity, commanding the respect of all who knew him.

A number of years ago, while Mr. Huber was still a young man, he became associated in practice with his former preceptor, Mr. Bacon, a partnership that continued over a period of nearly, if not quite, a quarter of a century, during which time many prominent buildings were constructed from their designs and under their supervision, much of the business, in the later years of the partnership, devolving upon the junior member. Among these buildings are the Spitzer and the Nicholas office buildings, the Bartley residence, and St. Mary's School on Page Street. After the death of Mr. Bacon, some ten years ago, Mr. Huber designed the Waldorf Hotel, the Nurses' building, St. Vincent's Hospital, the News-Bee and Newsboys' buildings, all of which are typical of his character, substantial and practical.

As president and as a member of the Toledo Chapter his presence and kindly services will be missed; his influence, in the creation of material things that go to make a city, will long remain a monument to his memory.

E. O. FALLIS.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:

BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

The National Industrial Safety Codes

The First Conference. On January 15, last, there was held in Washington, at the invitation of the Bureau of Standards, a National Conference to consider the formulation of a series of national industrial safety codes. This conference was attended by more than one hundred delegates, representing Federal, state and municipal departments, engineering societies, utility associations, insurance organizations, and organizations of employers and of labor.

The Conference was in unanimous agreement on the need for standardizing industrial safety codes on a national basis and on the need for such coöperation among the associations and organizations interested in their formulation as would secure for the standards, when adopted, the support and recognition of all regulative bodies.

This led to a discussion of the methods of procedure to be followed in the formulation of the codes. It was the sense of the meeting that the plan adopted must be such as would receive the voluntary hearty support of all those interested in the work and such as would secure the maximum weight of endorsement for the result. It was felt that the work of formulating safety standards and other standards should be conducted by a body truly representative of all the interests affected and of the appropriate Government departments and bureaus.

Plans for Procedure. Two plans for procedure were submitted for the consideration of the conference by the Bureau of Standards. "Plan A" provided that the "Bureau of Standards undertake the formulation of the safety codes with the coöperation of all interested bodies." If "Plan A" were adopted, the Bureau would appoint a large conference committee, possibly of fifty representatives of the interests concerned, and that this committee would become practically a managing board for all work done by the Bureau on the codes. "Plan A" also provided for the appointment of a number of smaller committees, which would include experts in different lines, who would do the detail work on the several codes. The codes adopted would finally be promulgated by the Bureau of Standards.

The second plan, referred to as "Plan B," provided for adopting the auspices and procedure of the American Engineering Standards Committee. This Committee, at the time, consisted of three representatives from each of the five "founder societies," namely, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers, the American Society of Civil Engineers, the American Institute of Mining Engineers, and the American Society for Testing Materials. The procedure of the American Engineering Standards Committee, as outlined in "Plan B" was, briefly, that the Standards Committee, acting as a coördinating or steering committee, would receive requests from any of the founder societies, government departments, or National associations for the formulation of any particular standards. Upon receiving such requests the Standards Committee would determine the need for the standards suggested, the organizations vitally interested in their formulation and use, and assign the work to these interested organizations as "sponsors." The sponsors would then jointly appoint a "sectional" committee that would be charged with the work of formulating the standards desired. The conclusions reached by the Sectional Committee would be referred back to each of the sponsor organizations for adoption, and upon unanimous adoption by the sponsors, the standards would be published by the sponsors with the approval of the American Engineering Standards Committee. This procedure was designed to eliminate the duplication of work and the lack of uniformity in the results which have characterized all former efforts.

The procedure provided by "Plan B" met with general approval, but it was felt that the American Engineering Standards Committee should be so reorganized as to permit a more comprehensive and representative membership. The Conference gave its approval to "Plan B," conditioned upon the reorganization of the American Engineering Standards Committee along the lines thought necessary to make it a more democratic and representative body.

A series of discussions during February, March, and April resulted in an amendment to the Constitution of the American Engineering Standards Committee which permitted representatives from other than the founder societies and Government departments to become members.

The Vote on Plan. The organizations, societies, and other bodies represented at the Conference on January 15, were asked to vote their approval of either "Plan A" or "Plan B." The result of this vote, as announced at the second Conference was, sixty for "Plan B" and twenty-five for "Plan A." The American Institute of Architects voted for "Plan B."

The Second Conference. The second Conference on Safety Codes met at the Bureau of Standards on December 8. Dr. E. B. Rosa, of the Bureau, made a report of the first Conference and announced the result of the vote above referred to. By resolution the Conference adopted "Plan B."

Dr. Rosa stated that the Bureau had appointed its own Advisory Committee on Safety Codes, and the Conference could accept this Committee, the personnel of which Dr. Rosa gave, or accept it with changes in or additions to its personnel, or select its own committee, if a committee was

considered necessary. The Institute was represented on the Advisory Committee by the Chairman of the Committee on Structural Service.

After extended discussion and explanation of the proposed functioning of this Advisory Committee, in the course of which it developed that there would be no conflict between the activities of this Committee, which was only to advise with the Bureau, and any body created by the Conference. A resolution was adopted providing for the selection of the International Associations of Industrial Boards and Commissions, the Safety Council, and the Bureau of Standards with power to appoint a joint committee that would survey the field to be covered, collect statistics and information on codes already adopted and those being formulated, and to designate other bodies who should become "sponsors" for the proposed codes.

The need for uniform industrial safety codes and for securing their endorsement and adoption was clearly shown by a chart prepared by the Bureau of Standards, and hung on the wall of the Conference room back of the speakers' platform. The purpose of this chart was to show the number of safety codes in use, both in states and in industries, and those formulated by various engineering societies and other bodies interested in such work. An explanation of the chart by Dr. Lloyd of the Bureau brought out the lack of uniformity in the codes being enforced by the various state boards and commissions, by the Government departments, by similar industries, and even by different groups in the same industries. The chart disclosed the failure of certain states, such as North and South Carolina, in which there are large textile and other industries, to adopt any safety codes. The list of industrial activities and features of construction in connection with which safety codes had been prepared or ought to be prepared included many that came within the scope of architectural practice. Such subjects were: exits, fire-escapes, illumination, ventilation, sanitation, elevators, electrical equipment. The Institute's representative pointed to this fact and said that it was incumbent upon the Institute to take, and it was anxious to take, an active part in the work of formulating those codes, at least, which pertained to the design and construction of buildings.

Many of the speakers emphasized the importance of conducting a campaign of education which would lead to the general adoption of the standard codes. It was brought out that there were many difficulties to be overcome, and the success of the whole enterprise depended upon success in securing the adoption of the codes, for unless they were used, the labor of preparing them would be wasted.

The machinery has now been created for starting and carrying forward a work of tremendously vital importance to industry and to the public.

Meeting of the Advisory Committee. On the morning of December 9, the Bureau's Advisory Committee met, under the chairmanship of Dr. Rosa. The Committee discussed every phase of the coming work on safety codes, including the part the Bureau was to take in it, the field to be covered, the character of the codes, and the composition of the joint committee provided for in the resolution adopted by the Conference on the previous day.

The discussion with respect to the proper character of the proposed codes is of peculiar interest to architects. There were two views on this matter: one, that the codes must be explicit in every detail, and the other, that they should embody the fundamental principles of safety only. Speaking on the question, the Institute's representative recounted the difficulties that had been met in the past in complying with building codes of the former description, and which had been encountered in connection with the enforcement of the national electric code. Such codes as these, he said, invariably check the development of good practice, because, in application, they are restrictive rather than expansive; they are designed to place a limit on what can be done, the limit being conceived naturally in terms of practice current at the time of formulation. No one, it was held, could with any degree of accuracy whatever prophesy future development, especially in the building industry. The proposed codes, it was thought, should deal principally with the correct fundamental principles, but if that was to be their character, the local enforcing authority must be given considerable discretion in making interpretations; and if that were done, machinery for facilitating appeals from local interpretations to a higher authority must be provided. It was agreed that in any event some sort of a permanent national interpretative body ought to be created. But it was felt that this body, if properly constituted, need have, and ought to have no mandatory powers.

Reference was made to the work of the American Society of Mechanical Engineers, the Bureau of Standards, and the Elevator Manufacturers' Association on the formulation of standard engineering requirements for elevators. In behalf of the Institute the hope was expressed that the work would be completed under the procedure adopted for the safety codes, in order that the Institute and other organizations directly interested might take part and become sponsor organizations with those named. The meeting's attention was directed to the work about to be started by the Institute and the Elevator Manufacturers' Association on the formulation of physical standards for elevators; that is, standards for platform and hatchway sizes and standards for speeds and capacities. It was pointed out that these standards must be formulated with respect to building populations, densities of traffic, time of runs, and so on, all of which were engineering requirements; and that run time involved both speeds and stops, and the time of stops was largely fixed by the operating and safety systems controlling the doors. Obviously, elevators must be considered as a complete transportation system, and no intelligent results can be secured if the several parts of the system are considered separately. Steps have been taken to correlate the work on standards for engineering, safety and physical characteristics of elevators.

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Shadows and Straws

Crossing the Continent
January 3–7, 1920

FROM THE WINDOW of the slow-plodding train, laboring its way over the Great Divide, we look upon a wide, uneven expanse, girded in every direction, seemingly, by low and jagged hills. A flood of brilliant, dancing sunshine descends over all. It quickens the sparse dried grass into a rich, warm pattern of browns and yellows. On the declivities, in the hollows and gullies, patches of snow lie white, adding a sparkle to the pattern of color. Now and then, sometimes in twos and threes, sometimes in hundreds, the brown-backed, shaggy-coated, white-nosed cattle stand at browse on the range. To the passage of the lumbering train they give not the slightest heed.

Through the bare branches of the occasional clumps of cottonwoods there glints the white of a house, or the more joyous flash of red barns or silos. The January sky is soft with the mocking promise of the great enchantress. Everywhere, over all, hangs the spell and the mystery of that utter tranquility and repose which spring from vast spaces and great silences. Only the cattle, the greyish brown stacks of alfalfa piled against the barrenness of winter, the far-scattered habitations, tell the tale of the pioneer race that was, that still barely is, but which the coming decades will know no more. One is conscious, vividly and keenly conscious, of the beginning of the great transition. From the problem of exploration, the lure of adventure, the hardship of settlement, we have emerged into the vastly more difficult era of occupancy and organization.

I turn from the scene reluctantly and open the portfolio of work to be done. Almost the first paper that greets my eye is an editorial torn from the pages of one of our weekly architectural journals. Across the top of it, in the handwriting of him who sent it to me, are written the words, "Oh for a Sullivan to this Gilbert!" Dear me, out here on the plains of Wyoming, that editorial does read like a part of "Iolanthe" or the "Mikado." Yet even more does it seem to be a part of Jacob Abbott and the great Rollonian epic.

By it I am adjudged to be guilty of heresy. Or is it schism? I have never been sure that I had wholly escaped from the confusion those words brought to my childish ears as I first heard them entangled with "hardness of heart." I remember that they seemed quite incompatible with the white robe, the gentle voice, the kneeling parishioners, and especially out of harmony with the open window that gave upon green leaves and blue sky. "Heresy, schism," and "all hardness of heart,"—and now I am indicted for all of these crimes. From a garbled phrase, distorted in meaning (not wilfully, I hope), I am made to appear as having written something under "Shadows and Straws" (that title seems also very much to annoy my accuser) that can be identified as a heretical or schismatic lapse from the narrow paths of editorial virtue. I am taken *flagrant délit*. By my own utterances, it is discovered that I am conducting a mischievous plan of keeping architects from joining the Institute, of trifling with the fortunes of that body, and generally exhibiting myself as a disreputable character.*

*"'Some day,' says the editor of the Journal of the American Institute of Architects in the November issue, under the very appropriate heading 'Shadows and Straws,' 'we shall learn to shun the man who calls himself practical, as we would an icthyosaurus, for we shall have learned that before starting out to "do something," you must have a philosophy, based on the whole problem.'" . . .

"Further on in this issue of the Journal we learn that its editor has been appointed to the executive committee. Is the editor's opinion as to the value of practical men shared by a majority of this committee, and does this statement in the November Journal reflect the opinion of that committee?

"President Kimball in his address before the Nashville convention urged that a thousand new members be secured in 1919. Does anyone suppose that this desirable increase in membership could be reached at any time if the policy of the Journal, which it is natural to assume reflects the policy of the Institute, is opposed to the very essence of the efficient practise of architecture?"

NOTE.—Without comment, but with the suggestion that members of the Institute give some attention to what may be going on, the following paragraph, quite contradictory, is quoted from the succeeding issue of the publication in question:

"President Kimball's strong appeal for larger membership has not resulted in securing even a small proportion of the 'thousand

in 1919' that has been considered necessary to securing for the Institute a more representative standing. In fact, it becomes more and more apparent that the type of men whom the Institute regards as eligible have largely become members."

Shades of Melancthon and Luther—of Cotton Mather and Roger Williams. Do I hear the soft ripples of thy laughter? Yes, I think I do. And as I evoke the vision of a famous pulpit out of the past, I even seem to see a merry twinkle in the eyes of the great preacher of Edinburgh.

"Do You Know," says a fellow traveler, "that we are now following the 'Oregon Trail?,'" and we recall, as best we can, our geography and our Parkman. At least we remember the names of the river valleys—the Platte and the Sweetwater, the Green and the Bear, the Portneuf and the Snake, the Malheur, Powder, Grande Ronde, Umatilla, and then the difficult choice of the toilsome climb over the Cascades, or of rafting it down the swift waters of the Columbia. Over these bare ranges the stolid oxen plodded their twenty miles a day. By night they sought their only nourishment in the scanty and unaccustomed herbage. Thinner and thinner they grew, as ever they climbed and descended; thousands of them died at their patient task. Their bones long marked the trail in gruesome heaps that whitened in the sun.

As to the Word "practical" (dare I meddle with it again?) and practical things, there is, for example, the great American institution known as the sleeping-car. A remarkable invention, we say, and we bow down and worship it. What, we ask, could be more practical? How else, in so small a space and at so low a cost, could we give beds to thirty or forty people while we hauled them from town to town in the middle of the night? Yes; the sleeping car no doubt passes for practical, but not with me. I do not particularly object to the open forum idea of going to bed; I can be deprived of oxygen and stomach those oxides of carbon with the same stoic American fortitude that endures the roasting process of steam heat; I am uncomplaining of the particularly American inconsiderateness with which late comers burst into conversation and awaken all the sleepers; I bear with heroic equanimity the raucous gurgitations of the tired business man as he sonorously serenades the night. But in the morning, when I am driven, as one is, on a long journey, into the gladiatorial arena of the washroom, where are assembled the jovial Ablutionist, the blithesome Saponificationist, the meticulous Dentitionist, and (I grieve to mention him) the unspeakable Expectorationist, all at their several shrines and devotions, I cannot give over the hope that the inventor of the sleeping-car, and all those who have contrived, devised or otherwise contributed to its perfection (?), together with their heirs and assigns, shall, in the life beyond this, be condemned forever to travel the infernal regions securely locked within one of these steel wagons. Some like them, I dare say. I do not, and, I say so in full consciousness of the trials and tribulations of the Oregon Trail. I am by no means convinced that by the aid of a sleeping-car I shall ever live more fully and completely than did those who walked beside their ox-teams.

Looking upon the marvelous brocades that Nature has embroidered on these rock-strewn hills of reddish brown earth,—never was a court darling more rarely adorned,—or studying the glorious tapestry of frosted conifers, the noble architecture that raises those rugged domes against that blue sky, clothing them the while in royal robes of rose and violet and green and black, while draping their bases with a flowing train of white, I am again reminded of the fallacy of the practical.

Look at Those cañons of downtown New York, for example. They, and what has followed them, are entirely due to the handiwork of the practical man. It was a practical man who invented steel construction for buildings. It was another such who built the first one. Then there came an epidemic, spreading itself up and down the narrow streets that were little more than the cow-trails of New Amsterdam. The disease spread, for behold that practical men rushed pell-mell over each other in their mad obsession to crowd ever more and more human beings onto a square foot of land. It mattered not whether for work, or rest, or play. Sunlight vanished into the depths of gloomy, towering walls. Oxygen vanished with it or was artificially propelled within reach of the ever-swarming humans. The practical elevated railway was supplemented by the practical subway with its practical stations and their practical exits and the rows of practical advertising decorations. To cap the climax, the practical steel car was evolved, with its minimum of seating and its maximum of standing-room. Already, some unknown practical genius had invented the strap by which to hang on.

Everywhere we turn, nowadays, we welter in the morass of the practical—the splendid legacy left us by the practical men that are gone. And yet it was not their fault. They took, as did all and as do we, the word practical as an individual right. They proceeded to look after their own practical objects. We now flounder in the era of waste, congestion, disorder, and disorganization which were the inevitable result of not applying the word practical to the whole community instead of allowing it to be appropriated as the exclusive right of individuals or corporations.

Thus, for the most part, most of our modern urban endeavor is given up to correction. We apply one practical remedy after another, urged on by the ever-growing consciousness that behind us are swarming the millions of the future. What we shall do with them in such places as downtown (or even uptown) New York, or in the loop in Chicago, or in the traffic center of Philadelphia, who knows? No one. But the real question is, who cares? When there are enough who really care, deeply and sincerely, we may be able to achieve a practical solution.

Today we work in palliatives, largely. Seldom are we bent on great constructive things, or working to a great, far-seeing and far-reaching plan. We pay for the present by drawing bills on the future. We are enmeshed and engulfed in the havoc wrought by our foremost citizens, who were looked upon as men of great practical sagacity. The answer, in the last analysis, is this:

When, instead of a system where Business, Commerce, and Industry can hire or buy all Knowledge, Science, and Skill in order to make profits, we shall have created a system where Science, Knowledge, and Skill develop, direct, and control Business, Commerce, and Industry, as agents for the welfare of mankind, we shall then be in a position to discover what is truly practical and how to follow where it leads. We shall then have a true professionalism, and we can have it in no other way, because professionalism means Truth which is greater than any part and professionalism means Science, as an inexorable law that we must eventually obey. It is because of these things that the Inter-Professional Conference, described in the last issue and now slowly taking form and shape, is of such tremendous import.

Swift flows the Grande Ronde, but swifter flows the Umatilla, and now we have crossed the last mountain range, winding for hours along crooked valleys with dark waters flowing below, with glittering snow-encrusted trees, shining white battlements. So we emerge to the narrow plains lying wrapped with a thick mantle of snow and the Umatilla is merged with the majestic Columbia. No longer are the mountains joyous or solemn. They have grown grey and worn under the leaden sky. The open water of the river is marked with a black irregular path. Blocks of ice lie piled among the boulders and everywhere are the scars and wounds of the long ages of erosion. The fog shuts down with the coming of night and the mountains become greyer and ghostlier; but the Oregon Trail is behind us, nevertheless, and the darkening precipitous heights that seem to place us in some Norwegian fiord do not make it any the less a promised land. Shall I not sleep tonight in a bed, with fresh air and open windows, and, most blessed promise of all, shall I not know the morning joys of a large, vast, and glorious Solitude?

Chanticleer, January 13, 1920

THE GREAT CANYON of the Columbia is engulfed in a solid mass of white fog. In billowy shapes and forms it rolls away, like a shadowy river, eastward, westward, to the limits of our vision. From the depths immediately below we measure its intensity as the black outlines of tree and branch are sharp, then broken, then fragmentary, and then no more. Here and there, at the foot of the precipitous cliffs, the barren summit of a conifer lifts itself, dull and skeleton-like, above the motionless sea. Over us the sun shines bright, the sky is dazzlingly blue, the air is soft and caressing. To the north, barely peering above the nearer hills, we mark the sparkling white crest of Adams. Hood we have already seen, sternly majestic in its white robe, the stately sentinel of Portland.

Slowly, carefully, feeling our way cautiously over the heavily rimed roadway, we descend into the Canyon. By skilful circles, we wind our way spirally around the bold protruding cliffs. We hang breathlessly at the edge of the precipice itself, at times, and then we glide slowly into the weird recesses of the forest. The Canyon walls rise almost within touch and disappear into the fog above. At intervals, the sunlight fights its way through unseen pathways, lighting up the woods with a trembling luminosity. Finally, we drop down where the fortress of fog is not to be taken, and here all chatter ceases, and we steal silently upon our ghostlike journey. Only the muffled hum of the engine breaks the heavy stillness of the depths. Chanticleer and the sunlight are hundreds of feet above.

At the Multnomah Falls we alight and climb the icy steep to where the bridge spans the gorge and looks down on the pool. High high above us, the stream breaks over the cliff. For full six hundred feet it falls, in one great shimmering veil, until it is caught in the strong arms of the rock-bound pool. The ice lies all about. The mountain sides are painted with its sparkle and the green of moss. Above the gentle wave of blue water that wells over the edge of the cliff, there hangs the deeper blue of the bright sky. We are gnomes, in a fairyland of wonders, where man has no significance.

Shasta, January 15, 1920

IN THE EARLY MORNING, ere Shasta was aware, I saw her in the far distance. The matin light broke clear upon her, in the full radiance of her charms, and I looked forward with eager anticipation. All day I should woo at her feet, the lover of her loveliness. Alas! When we again came in sight of her, after winding among the lesser heights of the Sis-

kiyous, her face was wrapped in a fleecy cloud. All day long she played the coquette. Now frolicsome, now defiant; now the mocker, now the indifferent. Never once again would she show us her crown of beauty. She whirled her mantle this way and that. Anon it would stream forth in a feathery spray, as though about to break and disappear. In great white drooping plumes she decked herself. Time and again she seemed on the very verge of throwing them disdainfully aside. But ever she drew them in, wrapping them the more compactly and binding them, impenetrable, about her stately head. With the coming of night she called her attendants from far and near. White clouds, grey clouds, dark clouds, all came in answer to her call, and in the waning light, when we stood at her very feet, she wrapped herself ever closer and closer, as though in utter defiance. But I love thee still, O Shasta! And I shall come again to woo, coquette that thou art.

San Francisco, January 16, 1920

FAR, FAR BELOW, lies the Pacific, folded in the inexpressible glory of the sun's passionate adieu. Her waters lie in proud yet glad submission—a languorous, golden ecstasy. They stretch afar into the dim mysteries of the veiled horizon, a flaming, joy-beckoning, soul-enchanting pathway to the Golden Gate. Its narrow, high-walled waters now lie almost beneath us. The more capricious Twin Peaks look mockingly across at solemn Tamalpais. Alcatraz shows the white shine of her prison as she sits in her solitary island splendor. The receding city resolves itself into a curious contracting plane, as though giant fingers were at work after the manner of the magician. The sentinel hills surrender their dignified eminence and vanish, miracle-wise, into the ever-receding, ever-contracting plane. The patterned rhythmic crossings of the streets are turned into a halftone screen of white lines.

Suddenly, to the right, I become aware of my companion bird. He had preceded us into the heavens and I had lost him in flight. Now, all unawares, he has stolen up beside us. His wings stretch out until the tips seem about to touch our own. I am more conscious of a perilous nearness than I am thrilled with a sense of companionship. From his seat behind the driver, my companion waves a signal of recognition. It comes strangely indeed across that intervening space, and it is almost with timidity that I raise my hand to respond.

Without other recognition we float in the heavens. Side by side, we glide mysteriously above the world. It is a thrilling moment of emancipation. Our forward movement is broken only by the gentle cadences of our rising and falling, as though we swam, gossamer-winged, upon long slow billows of air.

Suddenly, without warning, my companion bird swings away as though in coquettish flight and for a moment I am troubled with a curious feeling of joy and alarm. He yaws and careens in the air below, now pausing in haunting flutterings that seem to be without motion, now darting earthwards, skywards, eastwards, westwards, finally to sail serenely away out of my sight.

And then again, without warning, I am conscious of a terrible careening. Our wings shoot suddenly into perpendicularity. The earth is leaving its accustomed whereabouts. Even though fully conscious of the strap that holds me in place, I reach for something to which I may cling. The seconds go by in a fearsome procession, and then all bearings disappear. Earth and sky are gone awhirling. What happened I have not yet comprehended. By some miracle, some wonder of gyration, we too were again sailing serenely. But never was there such an exquisite, unspeakable thrill of peril and of joy. The earth was restored to its normal position in the universe. The Pacific lay in a softened golden plane below. The horizon was filled with deeper mystery. The heavens had become charted with untold myriads of traveled paths, to which man had finally found the key—and I had ridden upon one of them!

In the first rush of a partially restored confidence I am supremely happy. I think that I even smiled in pleasurable content. Did my driver guess that I was smiling? I shall never know, but once again there came that fearful careening. Looking down with what courage I could claim, I guessed that we were banked in a slow pivotal motion. The earth turned slowly below. How long could we maintain that fearful angle? Could we ever again regain our equilibrium? In what giant forces were we caught helpless? Such were the thoughts that whirled through my brain, until there came a final careening, a downward darting, a spiral whirl. The beating of my heart suddenly ceased. With a vague consciousness I notice that the engine valves are no longer tripping. For a moment, utter silence, and then there comes the soft passing of the air as it rushes by. Downward we float, with an ever-increasing speed. Below us lies the bay, growing ever more and more vividly green, as we dive headlong toward it.

Five minutes later—or was it three?—our wheels touch earth. We come to a stop. An attendant turns us about and we rumble back to the perch from which we sprang to flight. I clamber out, to greet the laughing faces of my companions. But I notice that my driver instantly turns to light a cigarette. Is it mere nonchalance? I must think it over.

C. H. W.

The Crisis in Architecture

By ARTHUR J. PENTY

I. AN ECONOMIC FORECAST

The Young Man and the Profession

THE decision of the Executive Council of the Post-War Committee* to recommend to the profession that it "work steadily toward the creation of a vocational Guild to include all those who earn their living in the practice of architecture and that to this end the Institute should set up machinery for the establishment of definite affiliations between all national organizations in the building industry," marks a stage in the development of thought on the problems confronting the profession that is not without significance. It demonstrates beyond doubt a growing consciousness on the part of the profession that the existing order of architectural individualism is rapidly coming to an end, if it has not already done so. The recommendation is, I am persuaded, a step in the right direction and perhaps it is all that for the present may be regarded as practical politics, but it has clearly no finality about it. For the central problem of the profession —the problem of how the young man entering it may establish himself in practice—remains unsolved. Though the Committee recognizes that the opportunity afforded by competitions is not the right method, it is yet unable to suggest an alternative.

Now this is a serious defect in the scheme;† so serious, in fact, that if there were any reason to suppose the factors governing the problem were unchangeable, it would be sufficient to condemn it. To fail here would be to fail absolutely, since upon our success in dealing with this problem, both as regards the future of architecture and the integrity of the profession, the possibility of making Guilds a living reality ultimately depends. If we cannot introduce order here at the vital center, it is seriously to be doubted whether it can be introduced anywhere. If the accidents of birth and fortune are, in the future as in the past, to be the determining factors in the career of the individual architect, it is clearly impossible to formulate any consecutive policy, plan, or scheme that may not be upset by any chance combination of circumstances, since there will be no possibility of abolishing that confusion of function which lies at the heart of the problem. To secure integrity of function, means must be found of ensuring that every man in the profession shall find the work that he is most fitted by natural endowments to do. Until the right work is able always to find its way into the hands of the right men, the revival of architecture in any widespread or popular sense remains an impossible dream. Left to himself, each individual architect will continue to work for his own personal success as best he can, and, in such circumstances, the welfare of architecture becomes a quite secondary consideration. The profession will remain weak and impotent, for it will lack any feeling of solidarity. It will be unable to enforce any discipline, or uphold any standard of professional conduct among its members, higher than serves their immediate interests. The wider and more fundamental issues will be neglected. Nay, until some solution is found for this problem, the organization of the profession on a Guild basis remains an empty formula, for the young men in the profession, who alone can bring the enthusiasm necessary to impart to the Guild a feeling of living reality, who alone can supply the driving force necessary to its establishment, will take no interest in it, since, so long as it provides no solution for their problems, they will be unwilling to identify themselves with its success.

Architecture or Industrialism

To get the problem in a proper perspective it is necessary to remember that the difficulty in which the young man finds himself today is not peculiar to architecture. In every branch of industry, the rising generation finds itself moving into blind-alley

*The resolution to which Mr. Penty here refers was as follows: "That state societies should include draughtsmen as well as architects and steadily work toward the creation of a vocational guild to include all those who earn their livelihood in the practice of architecture. That state societies should be organized independently of any Institute connection, and that there should be no restrictions as to holding office therein. That they at once, upon organization, should begin the establishment of relations with other local groups of technical men, trades and crafts organizations, in order that standards of practice may be formulated and that there may be developed a strong influence toward securing a higher standard of public work."

†The particular conclusion of the Post-War Committee here referred to was as follows: "The Committee recognizes clearly the problem of the young man entering the profession and believes that that question is one for serious study on the part of the whole profession, yet it does not believe that the competition is the right method by which the young man should be encouraged to establish himself in practice."—EDITOR.

occupations, for the ladder by which the older generation rose to positions of prominence has been destroyed by the growth of limited liability companies and machine production. This raises the question as to whether a system of industry that makes no provision whatsoever for the young can possibly endure. The fact that industrialism shows itself to be antagonistic, not only to architecture and the higher interests of mankind, but also to ordinary human interests, and that in spite of the prodigious efforts of reformers to find a remedy it steadily goes from bad to worse, suggests that there is something fundamentally and organically wrong in its very structure. Hence it is that before it is possible to formulate a policy for the future of architecture, it is necessary to make up our minds as to the future of industrialism. We must determine whether we ought to aim at adjusting architecture to the needs of industrialism, or whether industrialism will before long find itself compelled to adjust itself to the needs of architecture, which needs I am persuaded are finally identical with the eternal needs of human nature.

Now it is to be observed that the fact that the Executive Council of the Post-War Committee has decided to recommend the profession to work toward the creation of vocational Guilds, suggests that within certain limits it has made up its mind that the present individualistic régime is coming to an end, while the fact that the demand is so often made that architects should be given an engineering training, suggests the consciousness of some incompatibility between architecture and industrialism. To men of another age such conclusions would have been inevitable. They would have perceived the irreconcilable antagonism between the quantitative and qualitative ideals as postulated by industrialism and architecture. But, unfortunately, in our generation clear thinking on fundamental issues has been entirely undermined by the theory of evolution, which presents the transition from earlier to later social conditions as a change from a lower to a higher form of social organism, entirely ignoring the fact that a difference of principle is involved. By such specious arguments people have been persuaded to acquiesce in changes, which in their heart of hearts they knew were not for the public good, and resistance to the growth of evil has been overcome by promulgating the doctrine that the right policy was to accept all change as inevitable, and to adjust ourselves to constantly changing conditions. In the sphere of architecture, this teaching has been followed by the demand that the architectural training should give way to an engineering one, in order to adapt architecture to the circumstances of modern industry. That architects would be all the better for some engineering knowledge I am willing to allow. But that an increased competence among architects in this direction would solve the problems confronting the profession I do most explicitly deny. And I deny it because, as the problem is primarily economic rather than technical, the same forces which are destroying the position of architects today must inevitably destroy the position of the engineers tomorrow.

The Financial Deadlock

Economic reasoning leads me to the conclusion that it is only a matter of time—a few years at the most—before engineers will follow architects into the melting-pot, for a kind of economic gangrene is overtaking the social system. Architecture is a thing on the fringe of industrialism and was therefore the first to suffer when the shrinking process began. But engineering must follow, for there can be no stopping the disintegrating process until the most cherished principles of modern finance are successfully challenged. That sooner or later this will be done, I do not doubt, for there is no denying that finance in these days has reached a deadlock—a deadlock that refuses to yield to time-honored treatment. The explanation for this is simple. Modern finance is committed to an absolutely impossible principle; namely, that all money should bear compound interest. Obviously, there is a limit to development upon such lines, as the famous arithmetical calculation that a halfpenny put out at five per cent compound interest, on the first day of the Christian era, would amount to more money than the earth could contain, clearly demonstrates. Yet what we call sound finance refuses to recognize any limitations. In consequence, it is loading industry with an accumulation of overhead charges under which it staggers. One of our financiers, Sir Oswald Stoll, recently attacked this system of investing and reinvesting surplus wealth, affirming that, if wages could be reduced to the lowest rate capable of keeping body and soul together, productive industry could not be made to yield the returns which the conventional system of invested funds now requires; and declaring that any attempt to enforce the old system under tht new conditions is foredoomed to failure, and that should it be persisted in, the time would soon arrive when the capitalist system will be buried under its own ruins.

Spending Surplus Wealth

Now it is impossible to say definitely what will happen in the future, but we can say, in this connection, that one of two things must happen. Either the conventional system of finance will be persisted in and the shrinking process continue until the capitalist system breaks up and anarchy overtakes us, or we shall return to the ways of former times,

and surplus wealth, instead of being reinvested for the purposes of further increase, will be spent. If it is spent, we may be assured that it will be largely spent upon architecture and the crafts, for this is the one direction in which surplus wealth can be consumed in large quantities. The changed spirit which would necessarily accompany such a changed financial policy would automatically solve for us half of our problems. For what, after all, are half of our difficulties due to but the desire of the public to get their building done as cheaply as possible, in order to have a surplus to invest. It is this spirit that makes them so fractious, which inclines them to take a narrow view of each situation, that makes them put up with ugly buildings on the assumption that they are cheap, and to refuse work to good architects because they suspect their work will be expensive. As things are today, I often think the public don't mind how much they spend on a building so long as it is ugly, since, so long as it is ugly, it is assumed it will be cheap and no questions will be asked regarding its cost. But if it is beautiful, then their suspicions are aroused, and they are willing to listen to any self-interested person, who, fearing the competition of higher standards, is always ready to praise the work of better architects and to suggest it is expensive. My experience leads me to suppose it is just as difficult for an architect who understands the art to get a reputation for practicality and cheapness as for a beautiful woman to acquire a reputation for goodness. Just as a plain woman begins with a presumption in favor of her goodness, the bad architect begins with a presumption in favor of his cheapness and practicality—qualities that a good architect, with the utmost care and economy, cannot be supposed to achieve. This is the reason why good architects find it difficult to get hold of small work. If they have not the social position enabling them to handle the big commissions, the chances are they get little to do. It is "Cæsar or nothing" every time.

I said that if surplus wealth be spent instead of being reinvested, it will be largely spent upon architecture and the crafts. It will not be spent upon engineering, for it is apparent, when we think about it, that the demand for the engineering type of building is closely connected with the desire to extract the utmost returns on the capital invested—a motive that will entirely disappear when surplus wealth is spent. It is evident, for instance, that the skyscraper and other steel constructed buildings owe their existence to a quite abnormal state of affairs—to the high prices of city sites and speed in construction, so essential if profits are to be made and industry is to carry heavy overhead charges. All these things hang together and will fall together. Remove the motive of profit-making and building will be undertaken from a different motive. It would result in a demand for good, sound building instead of commercial building, for it would be a demand for a different type of building for different uses, and architecture would get a chance again.

The Intellectual Gulf

While it may safely be predicted that the abandonment of current principles of finance will give architecture a chance again, we may be equally sure that we shall not be in a position to take advantage of the great opportunity that changed conditions will bring, unless, in the meantime, we pursue a policy that will enable us to bridge the gulf between ourselves and the thought of the age; the absence of a common bond of sympathy and understanding between us and the public, is, in spite of our economic troubles, perhaps our greatest difficulty today. That some adjustment is necessary, all architects are willing to admit, but hitherto the advice we have been offered is to seek adjustment on the plane of current practice. But that, I am persuaded, is no solution. The true policy is not to seek adjustments in regard to externals but in regard to internals, or, in other words, we must seek to bring ourselves in relation to the best thought of the age, confident in the belief that the thought of this generation will be the practice of the next. Let us face the fact that there is no immediate solution for our difficulties any more than there is for the general social problem, but a solution can be found, and will be found, if we pursue, for a generation, a consistent policy based upon an intelligent anticipation of the future. I am led to this conclusion by a consideration of the successful architectural movements of the past. The revival of Roman architecture at the time of the Renaissance was a practicable proposition because the Humanists had, by their labors, brought into existence a public favorable to such a revival. The success of the Gothic revivalists in securing public support was due to the same cause. The Anglo-Catholic movement had created an interest in Gothic architecture which in those days was called Christian Art, and the architectural movement was floated upon the religious movement.

At the present time there is no popular or cultural movement prepared to give us support, and so we flounder about, first this way and then that, hoping by minor adjustments to make ourselves acceptable to the public. But there is a movement arising that will be a power in the land in the course of a generation or so, and if we are wise we shall study its psychology and seek to enrich its culture, for I am persuaded there is nothing in the nature of things why it could not, with sympathetic treatment, be turned from its present anarchic paths into those of reconstruction upon the lines we should like to see

things go. I refer of course to the Socialist movement —the fruitful source of new philosophies, new heresies, and new orthodoxies. It is a force with which we, as others, in the future will have to reckon, for it is the great driving force in the modern world that, for good or evil, must triumph because of its faith and conviction. There is no greater opponent of Socialism than the French psychologist, Gustave le Bon, yet he writes in this connection: "In religion, as in politics, success always goes to those who believe, never to those who are sceptical, and if at the present day it would seem as if the future belongs to the Socialists, in spite of the dangerous absurdity of their dogmas, the reason is that they are the only party possessing real convictions. The modern governing class have lost faith in everything. They no longer believe in anything."*

The Idealism of Socialism

Now this opinion is worth pondering over, for, if true, it should profoundly influence our architectural policy. If the Socialist movement grows and continues to grow, in spite of persecution in its early days and the utter inadequacy of its own economic formulas, which are constantly changing, it can only be because it has a grip on something far more fundamental than any economic formula. That something, I submit, is the communal spirit which is natural to man, that existed in the Middle Ages, but which modern society denies. The Socialist movement gathers strength because it combines a protest against the existing social order with the promise of a new one.

At the moment it is attempting the impossible. It is attempting to graft a communal system upon our existing industrial system, unaware of the fact that industrialism and communalism are as antipathetic to each other as are industrialism and architecture, and like us they are beginning to find it out. The growing consciousness of this antagonism is at the same time the explanation of the excesses of the I. W. W. in America, which seeks to destroy industrialism, and the medievalism of the National Guild Movement in England which aims at transforming it. This latter movement may be said to symbolize a change in the current of thought that has in the last few years turned its back on modernism and increasingly moves towards the medieval point of view. Judging by present tendencies, I am disposed to think that it will not be long before medievalism will be triumphant everywhere, for medievalists are the only people who are not suffering from disillusionment in these days. They profit by the failure of modernism.

Now, it is necessary, if the position is to be understood, to make it clear that the medievalism of these days is a very different thing from the medievalism of the days of the Gothic revival. For, whereas the latter was aristocratic, ecclesiastical, and romantic, the former is democratic, philosophic, and economic. It has not been led to believe in the Middle Ages by yearnings for romance but by a consideration of hard economic facts—such facts, for instance, as that the town worker in the fifteenth century was about twice as well off as the modern town worker in the days before the war, while the agricultural laborer was in nearly as good a position. Acquaintance with such facts makes people think. The old idea that the Middle Ages was a time of ignorance, poverty, and superstition is going by the board. It cannot stand the light of modern historical research which is beginning to cast suspicions everywhere upon modern conceptions of "progress." There is in consequence a movement back to fundamentals, to reconsider first principles, which promises to make the position of the medievalist impregnable. Everything that is vital in English thought today is medieval, and there is only one department of activity in modern life where medievalism has been defeated and that is in the architectural profession, which, a generation ago, abandoned its faith as an anachronism, in a vain effort to bring architecture into relation to the modern world. The paradox of the situation is that architects began to profess a belief in modernism only when modernism was beginning to disbelieve in itself.

The Fallacy of Adjustment

That, finally, is the key to the present situation. The profession is left floundering about like a rudderless ship, because in turning its back upon medievalism it cut itself off from its only possible intellectual base. Instead of the Renaissance policy bringing architecture into relation with the modern world, it has separated it entirely from the central current of modern thought and has pleased no one. For, while on the one hand the profession sacrificed the confidence of the more thoughtful and idealistic elements in society, who hitherto had acted as a link between the profession and the public, on the other hand it did not succeed in securing the confidence of commercial men, owing to the fact that as its accommodations were undertaken grudgingly they were felt by all at the time to be moral surrenders. Men who lose their idealism lose their driving force. Hence there can be no hope for the profession until it can recover those beliefs that the revival of the Renaissance destroyed. For the Renaissance movement was engineered by cynics, and has been followed by cynicism wherever it went. Its successes have been of the order of those facile half-successes that inevitably lead to a final and complete impotence—the prelude to dissolution and decay.

*"The Psychology of Peoples," by Gustave le Bon. P. 178.

Now the underlying cause of the moral failure of the profession is that when the Renaissance was advocated, the real facts of the situation were never faced. If the revival of medieval architecture* was being frustrated by economic difficulties, that was a reason for carrying our inquiries into the sphere of economics, not for changing the architectural faith. But the economic problem was shirked, with the result that when at length a crisis has been reached, the profession is mentally entirely unprepared—a conclusion that is borne in upon me by the fact that the discussion is almost entirely about adjustments and accommodation, for we no longer ask, as did the architect of the Gothic Revival, how we can conquer the world, but how we may accommodate ourselves to it. That is the Nemesis of shirking economics. If the failure were one of efficiency, as our accommodationists appear to argue, then it would follow that the most efficient architects would be the most successful and *vice versa*. We all know, as a matter of fact, that such is not the case, and that success in the profession has little to do with architectural or any kind of technical capacity. On the contrary, architects good, bad, and indifferent are to be found in every rank of the profession from the highest to the lowest. The explanation of this phenomenon is economic and psychological. It is due to the fact that as architecture in its essence is incompatible with industrialism, success in the profession is not related to any internal law of realities but to the operation of chance circumstances reacting upon the profession from without. It is because the architect as such speaks a different language to the modern man, and therefore is bound to the public by no common bond of sympathy and understanding, that social prestige exercises an influence in architecture to a degree I believe unknown in any other occupation. In other occupations success will bring social prestige, but in architecture social prestige must precede success, if not for every architect, at any rate for the more gifted members of the profession, for in their case the intellectual gulf between them and the public is wider than in the case of those of lesser gifts. With such men, if opportunities do not come to them early in life, the chances are they do not come at all, for as they grow older and more mature in thought, the intellectual gulf between them and the age tends to widen and to cause the public not to understand them. If such a man has been already successful, early, he will be accepted as a genius, but if not, he will be rejected as a crank by a public who entirely fail to understand the permanent disability under which the architect labors, compared with workers in other arts—that he must get clients before he can produce, while he has no means whatsoever of knowing who are the people that contemplate building, a fact that places the architect without social position at the mercy of circumstances to an extent entirely unappreciated by the average successful man of the world, and therefore tends, in the absence of any public recognition of this permanent disability, to deprive the unsuccessful architect of those opportunities which, if given him, would promote his success.

In former times this difficulty was recognized. It was understood that an architect could not succeed entirely off his own bat, and so it came about in Renaissance times that there were patrons who espoused the cause of particular architects and took a particular pride in the discovery of new men. But the simple truth of the matter that was so apparent in a simple state of society becomes obscured in a complex one like ours today. The public, seeing that A is successful and B is not, concludes that it must be because of some personal shortcoming of B, unaware of the fact that if A were placed in the circumstances of B he would be equally helpless. This does not occur to them because, in a complex society, cause and effect are much more difficult to trace. The simple truth that makes the world so unjust to B is further obscured by the existence of competitions which to the public appear to give every man his chance.

Architecture and the Guilds

Now all this stupidity, that places architects, whether successful or unsuccessful, very much at the mercy of ignorant opinion, is due finally to the fact that the profession is separated from its economic base in the building trades. A revival of patronage, if it could be effected, would be of considerable assistance to us in the period of transition, but it could not prove a final remedy. From whatever point of view I approach the subject, it comes finally to a return to the craft basis of architecture under a system of Guilds. We must work toward a return to the old conditions of building, when the architect was the master of the works and worked on his own job. Before the days of the Renaissance revival it was widely held among architects that a revival of architecture must follow a return to the medieval method of building, since until architecture recovers its base in experimental handicraft any new departure in architecture remains impossible. But though it has been recognized that a return to medieval methods would provide the conditions necessary for a solution of the esthetic problem in

*When I speak of medieval architecture I must be understood to refer, not only to the Romanesque, Byzantine, and Gothic, but to the vernacular architecture of the Renaissance in which the medieval spirit survives—in a word, to all European architecture that rests on a basis of experimental craftsmanship. On the contrary, when I speak of the Renaissance, I must be understood to refer exclusively to the architecture of the grand manner or monumental architecture, as some prefer to call it.

architecture, it has never been recognized that it would also provide a solution to the economic problem. Apart from such a policy, all I can see ahead is the complete annihilation both of architecture and the profession. Since, so long as the architectural profession seeks to perpetuate its existence as an independent unit, it can have no economic roots, and, having no economic roots, it must be finally crushed out of existence by those contiguous activities that have definite economic roots; thus all knowledge of architecture may disappear from the world as it did at the end of the eighteenth century, amid circumstances that will make its revival for some long time to come an entirely impossible proposition. But the situation might be saved by frankly facing the facts and removing the class barrier between architecture and the building trades, when, unless it so happens that modern society is precipitated into chaos (which is not unlikely), a ladder would be built whereby young architects could come to their own as a matter of course, and a foundation would be laid upon which architecture might revive. For under Building Trade Guilds the architect in his new function of Master Builder would become successful, not as at present by recommending himself to those who know nothing about architecture, but to those who do. This would operate to abolish that confusion of function which, as things are at present, frustrates all efforts towards reform, by enabling every man to find opportunities for doing the work for which his natural endowments most fit him. To those who hesitate to give their allegiance to such a policy and see difficulty in the way, I would say that those huge architectural monopolies that today appear to obstruct the path of all reform are nothing more than houses built on the sands, and must cease to exist as the economic conditions that created them tend to pass away. I would say, moreover, that what we lose in status as professional men we shall gain in personal independence. If history is to be trusted, the craftsman of the Middle Ages enjoyed a social standing far higher than the architect of today, as we gather from the story in the Mabinogion when Kilhwch was refused admittance to Arthur's hall by the porter who said: "The knife is in the meat, and the drink is in the horn, and there is revelry in Arthur's hall, and none may enter therein but the son of a King of a privileged country, and a craftsman bringing his craft."

(To be followed by II: "The Failure of the English Vernacular Revival.")

Post-War Committee—An American Opinion

Among the interesting communications received in response to the lengthy document recently distributed to the profession by the Post-War Committee, is a letter from Mr. John Taylor Boyd, Jr., of New York City. Mr. Boyd rightfully states in the first few paragraphs that the "Statement of Progress of the Post-War Committee" truly "is progress—a sound, comprehensive program of leadership pointing out the road for the profession to follow." It reminds us, however, that it is only a statement of progress in the matter of investigation and suggestion. It is a practical summary of a large and diversified opinion and the result of investigation and suggestion of many minds. It is now time to take steps to continue the investigations and suggestions in a more organized and systematic manner, and at the same time to begin a practical execution of the suggestions that will bring about improvements in the architectural profession. The Post-War Committee is now organized on that basis and all such thoughtful and constructive suggestions as that of Mr. Boyd are very helpful and will be gratefully received.

Mr. Boyd takes the proper attitude for all architects to assume in this great work when he says he hopes to contribute what he can and immediately offers comments, some of which have been already offered by others, some of which, however, are new or expressed from a new point of view, and these bear upon such an important portion of the work of the Post-War Committee that the publication of a digest of them would be desirable.

We cannot quite agree with Mr. Boyd that the Post-War Committee has reached a solution of matters under the headings of "Professional Principle," "Work of Post-War Committee" and "Architect as a Citizen," as set forth in the "Statement of Progress," notwithstanding, as he says "gigantic forces now let loose upon the world make it impossible to find a basis for a program that reaches many years ahead," for it must be presumed that an intensive study of these problems by more of the architects of the nation, as they may be represented in the new organization of the Post-War Committee, will bring out continually and progressively new and better solutions of these problems.

Education

Mr. Boyd discusses two points of prime importance in the program of the Post-War Committee,

namely, education and the initiation of the young architect into the profession. Mr. Boyd says that, "Notwithstanding the excellent program of the Illinois Chapter and the memorandum of Mr. Magonigle," brought out at the 51st Annual Convention, "we should not lose the breadth, imagination, and sympathy of the Beaux-Arts idea. Anglo-Saxon education has one great difference from other systems, a difference which is both its strongest and weakest feature. It has an ecclesiastical heritage and insists on character as well as mind, but in developing character in its closely knit community life it too often becomes formal, pedantic, authoritarian. We should know how to force discipline without the drill-sergeant.

"In education, culture is always essential. But we should discriminate as to what kind of culture is wanted. We should not be misled by the ideal of charming manners, social prestige, and wide reading, for too many men have been carried so far by this seductive vision that they have gotten even further out of touch with the hustling American world than their rôle of expert and specialist would naturally take them. Culture should be democratic and not aristocratic. All the professions are beginning to see that the long, formal, carefully shepherded course of education in the schools and of technical training afterwards has dangers of producing a race of one-sided experts and specialists who see every problem through the eye-glasses of their own profession, and who find it so difficult, with the best possible good will, to coöperate with the outside world. The business men complain that the expert must always be 100 per cent sure, must always 'cover' himself, and that he finds it so difficult to appreciate the modern idea of compromise and coördination. The expert's ideal is a fine one, but it should not be made a fetish. In the formal, intense, community atmosphere of an architectural school, both teacher and student, in spite of themselves, fall under the insidious exaggeration of the specialist's viewpoint.

The Young Architect

Perhaps the most important consideration for the improvement of the architectural profession, and, also, the one that has been given the least constructive attention on the part of the profession, is how the young architect is to get a start in the profession and at the same time earn a modest living. For the serious situation now existent, Mr. Boyd says:

"There are two remedies: One is pessimistic, destructive, assumes that the profession is overcrowded, that its membership should be reduced to a point which allows those remaining to earn that living which even a professional man should have. This solution leaves architecture as a luxury. The other is that the profession contains only several thousand men in the whole country; that it needs the combined energy and brains of all of them if the profession is to progress further in its rôle as an essential factor in American civilization. It declares that the field of activity should be vastly broadened; that it has never been sufficiently developed; that such broadening will come not by stimulating the commercial activity of individuals but by the greater coöperation of the profession as a whole, on a professional basis, with the American democracy. A program and organization should be developed along this line. Further, I think we should have a clearer idea of what the 'young architect' is. Someone always arises (is it the same person?) and remarks patronizingly of the danger to the profession caused by the 'young architect' who gets his experience at the expense of his clients; how 'only the established architect, with large organization and long experience should be called upon.' Now, is an architect to become a middle-aged man before he dares tackle small country houses or alterations? Hardly—he should be able to handle these problems proficiently in three or five years after graduation. This small work is about all that the average architect ever gets, anyway, and he should be at it, under his own name, at the age of thirty, making a fair income. With experience and ability above the average he should be able to tackle successfully all but the very big work at the age of thirty-five.

"Throughout all this education and professional training [of the young architect] his path has been made as smooth for him as possible—each step carefully prepared for him, encouraging him to progress as fast as he is able, until, at the age of thirty, he is fully equipped professionally to begin a modest practice. Yet he must take his final step, the one on which his whole career depends, almost without aid or without any experience. He may be already known in his own profession, yet he can hardly be known outside of it, and he can hardly offer prospective clients any tangible evidence of his ability. He must be entrusted with the expense of several thousand dollars at least. Thus, as a result, the young architect finds himself alone in the industrial world in a competition of 'business-getting' and of salesmanship against established powerful organizations, must sink or swim on his ability to suddenly develop qualities within himself which he had never been greatly encouraged even to consider. After a long training in the purely professional field he finds that his success depends at first on considerations that are not considered professional at all.

"Some means of aiding the young architect in his final venture should be found, else the profession will train up numbers of youths, only to have them snapped up by business, which is now more than

ever seeking well-trained, responsible young men, wherever it may find them. I believe that the profession should organize to solve this difficulty. Solve it in such a way that the capable youth who chooses architecture as a life-work should be reasonably sure of the same income from the years of thirty to thirty-five that is asked for teachers in the university endowment campaigns."

"With the immense expansion that technical scientific progress makes possible in this age, the demand for educated, responsible young men will run far ahead of the supply. The professions will be forced to compete with industry for the youth of the country. They cannot offer the financial rewards of business; they must substitute other values for material ones. But I believe they will be compelled to work out a system by which a youth may be reasonably sure of a living in independent practice. This need lays a great burden upon the initiative of the profession as a whole."

HENRY K. HOLSMAN,
Secretary Post-War Committee.

Protection of Historic Buildings

By HORACE WELLS SELLERS

THOSE who have read Baring Gould's sketches of "An Old English Home" may recall his chapter relating to the parish church in which he deplores the injury so many of the ancient buildings have suffered in the hands of the so-called "restorers." Many of these structures, he reminds us, were built of local materials and decorated by the inhabitants of the parish, who left in their handicraft something of their very best, only to be replaced in modern times by stuff manufactured at a distance and too often chosen from an illustrated catalogue. "Some wiseacres" he adds, "cry out because antiquaries complain at this devastation, but have not these latter a right to complain when parochial history written into the parish church is being obliterated?"

It is reassuring to know that these sentiments became sufficiently widespread in England to crystallize into a permanent organization entitled the "Society for the Protection of Ancient Buildings," founded in 1877. In the current annual report of this Society its purpose is set forth in its plea to put Protection in place of Restoration, in dealing with ancient structures of historic and architectural interest, and, while staving off decay, to resist the temptation to tamper with either the fabric or its ornament; "in fine to treat our ancient buildings as monuments of a bygone art, created by bygone manners, that modern art cannot meddle with without destroying."

The report calls attention to the fact that each change made during the early history of these ancient structures reflects truthfully the fashion of the time, and that imitation or forgery was impossible in the era of medieval art, while today the civilized world, amidst its knowledge of the styles of the past, has no style of its own in the same sense that the architecture of the Middle Ages was alive with the spirit of the times in which it was fashioned.

While this is true of the more ancient monuments of the Old World, the same plea cannot apply without qualification to the architecture of later times, and especially of the seventeenth and eighteenth centuries to which our early American buildings belong, and which we would see restored to their original condition. We are only too familiar with the changes wrought in our early architecture during the nineteenth century, after the breaking away from the principles of design that governed the work of our master builders during the colonial period, and we have not, therefore, the same occasion to deplore the destruction of modern details where changes made in the nineteenth century are in the way of the restoration of an ancient building.

We can, however, join with our English kinsmen in the support of the general principles of preservation rather than attempted restoration where the craftsmanship of the Middle Ages is concerned, in the desire to safeguard what James Russell Lowell in writing of our relations to the mother country describes as "its heirlooms of immemorial culture, its historic monuments, ours no less than theirs."

The report before us contains photographs of interesting buildings, representing cases the Society has had to deal with as a general indication of the work accomplished during the preceding year. It points out that even where a structure has come into private hands, and it is threatened with changes to adapt it to the owner's needs, the Society has been successful in having the work done under the supervision of an experienced architect in sympathy with the Society's ideals.

Included in the report is a paper read by Prof. S. D. Adshead, F. R. I. B. A., dealing with "Old Villages and Village Reconstruction," in which is traced the growth of the early English communities. In presenting his plea for their protection he quotes William Morris, who, in addressing a group of young

architects, said that "at one time any village could boast of a decent little chap who knew something of building, who could put up a decent little home for a decent little man to live in, but now it takes a highly skilled architect to draw up plans and arrange technicalities."

Professor Adshead, in considering the ancient villages of England, holds that "he who can carelessly destroy the works of those who have long since ceased to toil is surely lacking in a sense of reverence and respect," and while we on this side of the Atlantic may not go quite as far as this, especially when we view the towns that are the product of the period of our greatest industrial growth, we can sympathize with the Professor's point of view in the face of the changes being wrought by foreign immigration in the case of some of the ancient villages of New England.

We can agree with him also in his suggestion that instead of improving and enlarging the picturesque old villages by crowding in new structures among the old, the "policy should be to create new villages entirely separate, but close to the original settlement, just as Brighton and Hastings are not extensions or enlargements of the old fishing villages."

The activities of this English society in its special field are similar to those of our "Society for the Preservation of New England Antiquities," and, in this age of shifting change in our older communities, there is increasing need of agencies to safeguard the landmarks in the keeping of this generation and which should be the heritage of those who come after us.

Instruction in Architecture in the A. E. F. Art Training Center at Bellevue, Seine-et-Oise, France

By GEORGE HERBERT GRAY
Formerly Major of Engineers and Commandant of the School

I. The General Organization for Teaching Art in the A. E. F.

THE army to try the teaching of art! The idea was ridiculed when first proposed; and even when the organization was under way, one of the army officers identified with the general organization told me he considered it the most absurd undertaking of which he had ever heard. Nevertheless, after the signing of the Armistice, and pending the return of the troops to America, there were a number of schools for teaching art organized for the officers and men of the Army who were disposed to take advantage of such courses. The work of these schools was unprecedented, far-reaching, and so suggestive of new ideas and methods of study that much is being written on the subject. It may, therefore, be wise to indicate the manner in which these several schools were correlated.

First of all, at the great concentration area at Le Mans, where tens of thousands of troops were held in readiness to move on to the port of embarkation, Ernest Coxhead* formed a large class for the study of architectural monuments in that region. Simultaneously, there was in process of organization, a comprehensive plan for study in all the fields of art, open to all troops in the A. E. F. who were not tied down to definite army work. The plan adopted was the formation of two schools. One for those who had the maximum amount of previous training, to be located at Bellevue on the outskirts of Paris; the other for those with less training, to be located at Beaune, as a college of the great A. E. F. University. Technically, the University at Beaune comprehended all army educational work in the A. E. F.

The transforming of buildings into study- and lecture-halls; the collecting of books and materials for drawing, painting, etching, engraving, and modeling, of clothing, bedding and kitchen equipment; the preparation of curricula and the assembling of instructors was the work of weeks. Meantime, students were arriving at the headquarters in Paris. Some had been students there at the outbreak of the war. They were keen to return to their former masters and were allowed this privilege; a few others were sent to existing French schools in Paris and elsewhere. For those convalescent in the hospitals, a special department was formed under Capt. Aymar Embury. This, in a general way, is the manner in which the field of art was covered.

The entire Department of Fine Arts was under the direction of George S. Helman, assisted by Lloyd Warren in charge of architecture, painting and sculpture, and by Grosvenor Atterbury in charge of architectural engineering and construction, city planning, and landscape architecture. Mr. Warren outlined the curricula for his subject at Bellevue and Beaune, and, in like manner, Mr. Atterbury for his; the landscape work and city planning, as contemplated, were to be taught at Beaune only (except that extensive propaganda work was to be done).

*Mr. Coxhead's work is described in the Journal for October and November, 1919.

As Mr. Atterbury was called to America about the time work began, the landscape courses did not materialize; students for such courses were assigned to architectural design or entered at the French Horticultural Schools, as at Versailles. The city-planning work was diverted to Bellevue and organized and directed by the writer. Questionnaires were issued throughout the army to determine what students were available for the work and what their qualifications might be.

II. The Work at Bellevue

The Equipment: Mr. Warren had hopes of getting the Pavillon de Bellevue as our locus, but before plans could be carried out or even defined, it was essential definitely to secure these quarters. I immediately obtained an option on the property, and, having been appointed to the military command of the post, proceeded to transform and equip it for living and teaching purposes and to get in abundant supplies of all necessary materials—although formal military authority for occupancy was not forthcoming until shortly before school closed. The school at Beaune had to transform an old army hospital, consisting of portable wooden shacks. For this and other reasons it happened that the school at Bellevue was under way some time before that at Beaune, and all the first students were ordered to Bellevue where they were either retained or booked for Beaune, as their qualifications might require—a limited number, especially so desiring, being assigned to the Ateliers of Paris.

The Opportunity: Out in the mud and the dreary monotony of the routine of camp-life there were, it was estimated, upward of two thousand soldiers of various grades and ranks, eager to learn something of the land in which they found themselves at the end of the fighting—a land which I have elsewhere described as "a veritable treasure-house of art of every description, whose whole history is interlaced with the history of art; a land which for ages has been producing masters and master works; a land replete with museums, schools, and instructors of great gift."* When word came that we were to be authorized to take advantage of these opportunities, the news was electrifying—almost unthinkable. Thus it was that those who came to the school were imbued with an enthusiasm and zeal probably never before equaled by a body of students, and back of this was a physical fitness and energy certainly never before equaled by a body of *art* students. How was the course of study conceived to take advantage of this extraordinary coincidence of zealous students and rare opportunities? Mr. Warren, who was Dean of the Faculty at Bellevue and in full charge of instruction, stated the answer very clearly: "In view of the short duration of the proposed term of study (three months) and of our proximity to the center of all French art activities, it was thought best to make some sacrifice of the students' time, usually devoted in art schools entirely to technical work, for the benefit of a general knowledge of the many forms of art in which France was eminent. Therefore, it was arranged that all the students should visit the museums and places of general artistic interest in Paris and its vicinity, including chateaux, museums, and expositions, emphasizing for each group those elements which had a peculiar and particular interest for the group. In short, the three-months' course was to be the study of the fine and applied arts of France, with specialization in their various branches, rather than a study of the world's art or merely of technique, such as is conducted in academies in general. The study of the French language was a corollary to this proposition, and, it was evident, must be included."

Methods and Results: Without going into the details of the curriculum, which are recorded at greater length in the report which has just been quoted, there are certain characteristics of the work of which the results warrant emphasis. First of all, and of a general character, was the fact that housed under one and the same roof, eating and living side by side, were painters, sculptors, interior decorators, and architects, comparing notes and each interested in the other's problems. In like manner, many of the instructors lived under this same roof and hobnobbed with the students.

Then there was the breadth of the curriculum, beginning with classes in French in the morning, followed by courses in the history of France by M. Emile Seillens, in which emphasis was laid on French national traits and the causes out of which developed those great epochs in French history which produced distinctive styles and periods of architecture. Following these were lectures in special branches of art, sculpture, painting, interior decoration, architecture, and certain lectures on landscape gardening and city planning, attended by all the students regardless of the department in which they were enrolled. In general, these lectures were copiously illustrated. But there was another way of taking out of the realm of the abstract the knowledge thus acquired. This was a study of the works of art themselves, the monuments, and the collections in the museums.

Two means were organized to accomplish this end, the first and most comprehensive being a series of "Study Trips," systematic visits to the museums and monuments of Paris. Every Monday night an illustrated lecture and critique was given us by William C. Titcomb, covering that part of the city

*"Report in the A. E. F. Art Training Center at Bellevue, Seine-et-Oise, March–June, 1919," Geo. H. Gray, Maj. Eng.

which the students were to visit during the ensuing week. Each afternoon thereafter a group of some sixty students was taken to Paris in our army trucks, fitted with benches for the purpose, and was conducted by Mr. Titcomb to the section of the city covered by his last lecture. Thus, by the end of the week, the entire student body, some three hundred, had been over the ground. The second means consisted of visits to places of peculiar interest to the special departments, conducted by the department heads, often following in greater detail one of the "Study Trips."

In the afternoons of four days of the week the students worked on their problems of design, which in the early part of the work were test sketches to determine the experience and facility of the student and to aid in placing him in his proper class. Those having the necessary experience were allowed to take up the current Beaux-Arts problems, while the less experienced were especially coached on problems more elementary. As the Beaux-Arts problems are usually arranged to tie up modern requirements with the best traditions and heritage of the past, these problems also usually led to the study of certain existing monuments.

In order to give the student opportunity to study these monuments, which lie beyond the immediate district of Paris, orders were issued for travel leave from Saturday noon to midnight Sunday. This enabled them to see places as far distant as Chartres on the one side and Fontainebleau on the other. After this field was pretty well studied, the time was extended so that the leave began on Friday and continued until Sunday night.

Each day was a full one. In that portion of the morning not taken up with French classes and general lectures there were several special classes. One very important one was a course in pencil-sketching conducted by Lieut. Philip L. Small, who insisted that the student place his subject properly on the paper by beginning with the salient points and the essential connecting lines, later developing the details and values; as a result, the student was soon able to record his observation in a quick sketch of a few lines or in a more detailed study if the time were valuable. This facility also enabled the student to work more rapidly in the draughting-room. It was a notably successful course. Good work was also accomplished by a more limited number in water-color work, under the guidance of Ensign Brown and Lieut. F. Nelson Breed.

Likewise, in the morning, came the lectures on city-planning, attended by those classed as advanced architects; a number were landscape architects. The lectures were given by George B. Ford, Cyrus W. Thomas, Lieut. Francis A. Robinson, and myself. The method pursued was to give a general view of the subject of city-planning, showing its relation to the arts, to engineering, and to the economic and political development of the city as a whole. This general view of the subject was followed by a study of the many object lessons found in the city of Paris and a history of their original development. The students were required to measure and sketch a variety of interesting parts of the city. The courses culminated in a demonstration lecture by Capt. Clarence E. Howard, who took the program for the reconstruction of the region of Chauny, and, from the data given in the program and on the accompanying maps, developed a series of diagrams leading to his project. It will be seen that in this course, as in all other work, the students were being trained in observation, for it was always contemplated that extensive travel should follow for the students who should have satisfactorily completed the course at the school.

The study trips to Paris took one afternoon each week and the week-end travel two more, leaving four afternoons for the atelier work. Usually there were present for this period upward of a hundred students. To give personal instruction and criticism to such a number as this, Ensign Brown, Mr. Warren's assistant as head of the Department of Architecture, gave his entire time to the work, and on certain afternoons of the week M. Jean-Paul Alaux and M. Jacques Carlu each criticized half of the class. At longer intervals M. Victor Laloux also helped. In his first visit he criticized 115 "projects" and came out with his face glowing with enthusiasm over the undertaking.

After the lectures and "projects" had proceeded to the point where the student had a certain facility in technique and a better appreciation of form and proportion, together with a certain knowledge of the periods, classes were organized for making careful measured drawings of historic monuments, different students taking various portions of the same monument.

That the course was broadly conceived will be better appreciated when it is borne in mind that the lectures given to all the students were by specialists in their several lines: Lorado Taft, Capt. Ernest Piexotto, Leslie Caldwell, John Galen Howard, A. Kingsley Porter, among the American lecturers, and, among the French lecturers, M. Louis Dimier, M. J. C. N. Forrestier, M. Adolph Giraldon, M. Solomon Reinach, M. Marquet de Vasselot, and many others. But so well coördinated were the various subjects that each additional course made for thoroughness rather than shallowness. Solon Borglum lived at the school and mingled with the students of sculpture and architecture alike.

The analysis of the personnel of the student bodies is interesting, to wit:

Students assigned from March 5 to June 1

	Total	Commissioned Officers	Non-commissioned Officers	Privates
Architects	160	57	67	36
Painters	131	14	52	65
Sculptors	16		6	10
Interior Decorators	37	1	25	11
Unassigned	6	3	2	1
Grand total	350	75	152	123

Orders were issued that while in classes there should be no distinction between officers and the enlisted men, but at all other times the usual distinctions were made, the officers being quartered in separate rooms from the men and maintaining their separate mess.

So we lived for several months "as a great happy family," as Mr. Taft put it, each hammering away at the work of his choice. In May came the announcement that all schools were to close the latter part of June and the students to be prepared for embarkation. Then there came the impatience to get out and see the more distant parts of France. To accomplish this we decided to close all regular courses on the last of May, so that before closing the school on June 15 there would be for all, as part of their school work, two solid weeks for distant traveling. An additional two weeks' furlough was available, after that, for a large number.

If we take as the real estimate of the success of a course the progress shown by the individual student, this three-months' course was, I should say, equivalent to six or eight months work under ordinary conditions. An exhibit of the work of this and other schools of the A. E. F. is under consideration—an exhibit to travel over the entire country.

Permanent Results: May we not create in peace times such a school as this, where the arts are studied together, all following certain common courses and discussing their special problems together? I feel that we can, and in more ways than one.

(*a*) First, and most closely allied to the work just described, it is hoped that the country is finally awake to the necessity of universal military training as a safeguard to the nation as a whole, and as a means for the conservation of the lives of our youth in event of war, saving the needless slaughter that falls to the lot of untrained troops. In such a scheme, with three months' strictly military training and another three months of vocational training, one or more large groups of art students could be assembled in such centers as are endowed with art collections and notable buildings. As there was an interchange of lecturers between Bellevue and Beaune, so might there be in the scheme which is here proposed.

(*b*) It would seem that some of our colleges, located near our great art collections and having as a nucleus certain courses in the fine arts, could expand to include the other branches, or coöperate with other existing schools in such a manner as to bring the students into a common life and close contact.

(*c*) Schools all over the country could combine to form a summer school for foreign study and travel, with headquarters in or near Paris, where there might be conducted a three-months' course of the kind described in this article, a larger amount of travel being granted to the more advanced students than to those less advanced. It is a gratifying fact that already steps have been taken by one of our largest schools of architecture to put this plan into operation. They now lack for scholarships.

(*d*) This school might well be the nucleus of an American Academy at Paris, corresponding to the American Academy at Rome and at Athens. There is much that such an institution could do to supplement the work of the existing schools at Paris. This was abundantly demonstrated by the fact that the work of the students temporarily in the Paris ateliers did not compare with that of the students at Bellevue, although none of their time was taken up with systematic courses of lectures and travel. This can be attributed to the very fact that they did not have these courses to throw the necessary light on the traditions which the Ecole de Beaux-Arts presumes each student shall have in some degree before entering the school, and which he studies systematically during his course. The French were most enthusiastic over our work. They coöperated most heartily and expressed the hope that out of it might come something permanent.

It is not necessary here to expand on the direct advantage to the army itself of men trained in quick and accurate freehand sketching, in architectural drawing, and in approaching any problem in that frame of mind which quickly grasps the essential and gives consideration to details in their proper proportions. Nor, is it here necessary to more than call attention to the fact that the army is the only organization which in a large way has ever seen to it that young men of the voting age shall have a working knowledge of the English language, some knowledge of the traditions of the country, and other such matters essential to good citizenship.

Let us hope that the Institute will take the lead by endorsing some or all of the educational schemes here suggested.

PLACE DE LA BASTILE
Drawn and lithographed by Ph. Benoist. Figures by Bayot

The Plan of Paris. II

TRANSFORMATIONS AFFECTING THE CENTRAL QUARTERS. ESTHETIC PROBLEMS CONNECTED WITH THESE OPERATIONS

By NILS HAMMARSTRAND

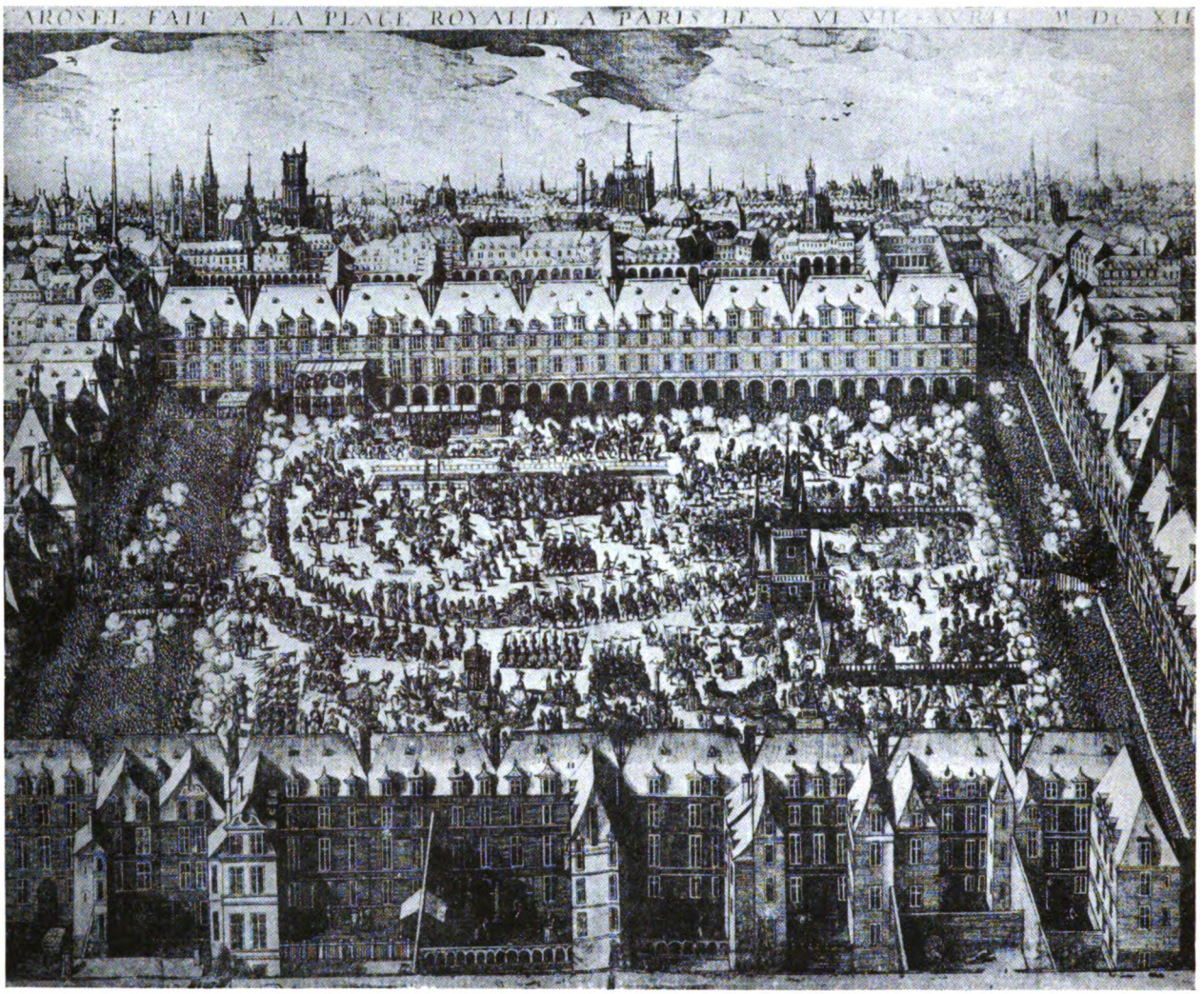
The Traffic Problem

TO improve the local means of conveyance—always greatly neglected in Paris until recent years—much has been done since the beginning of this century. In constructing a widely ramified system of subways, a serious endeavor has been made to counteract the growing necessity of regulating and facilitating traffic by new extensive measures of replanning, an effort which hitherto had been deemed futile. Respecting the effects produced by the new means of transportation, it is recognized that they have favored a migratory movement of decentralization. On the other hand, they have in Paris, as everywhere else where introduced, failed to bring any relief to the congestion of traffic on the surface and have rather served as a stimulus to increasing traffic generally.

Congestion not Cured by Rapid Transit

The universal recognition that methods of rapid transit, far from relieving traffic pressure, rather act as an agency for multiplying circulation, will, of course, prove especially fatal in a city like Paris, which is not only very populous but also still extensively medieval as to its physical construction. In view of the local conditions, there is nothing astonishing or condemnable in the fact that the authorities of the city have found it expedient to resort to a new comprehensive revision of the street system. The underground connections between the accentric railway termini have not proved efficacious in relieving the center of the city. Evidently the transformative work, begun about 1800 and continued on a larger scale since about 1850, has not been sufficient. Thus experience has proved that a more central position of the great railway termini, though otherwise advantageous, would not have lessened the urgency of the great operations performed during the later half of the last century.

The work of Haussmann was, as generally known, attacked not only for being carried out on too large a scale, in the opinion of its critics, but also for being executed in a wrong manner. The best way in which to effect the needed improvements generally, according to his opponents, would have been to widen old arteries instead of



THE ANCIENT PLACE ROYALE (1612)—NOW THE PLACE DES VOSGES
After an early engraving. By courtesy of George Herbert Gray, A. I. A.

opening up new ones. While Thiers, one of the leaders of the opposition, acknowledged the merits of the so-called "first net," he more or less unreservedly condemned the rest, i. e., the bulk of the operations.

To exemplify, Thiers did not approve such important measures as the opening up of the Avenue de l'Opéra and of the Rue de Turbigo. "The Rue de Turbigo is certainly not useless, but it would have been better to widen the Rue Montmartre," he said.

Modifications vs. Transformations

Thiers and his adherents certainly underestimated the future value of the Avenue de l'Opéra and of the Rue de Turbigo. But, if they could have an opportunity to view the situation today, they would have the satisfaction of being able to state that the method cherished by them has been adopted and is being more extensively applied in carrying out the new operations. A considerable number of new streets has been planned, but the street widenings proposed seem to be even more numerous. Thus, while the general effect of the improvements realized by Haussmann was a transformation in the true sense of the word, the new campaign will rather modify than transform the city structure. In the "Considérations Techniques Préliminaires," published by the Commission d'extension de Paris, some reasons are given for adopting this policy. In emphasizing that the streets, especially in the center, already now divide the city more than is desirable, the commission says that "the danger arising from an excessive unnecessary multiplication of the streets is the exaggerated reduction of the size of the blocks, and, in consequence thereof, the suppression of great interior courtyards and private gardens." This applies especially to certain quarters of the city, as, for instance, the Quartier St. Germain, where the opening up of one or two great arteries "would inevitably result in the rapid disappearance of most of the great gardens still subsisting between the Rue de Babylone, the Rue de Varenne, and the Rue de Grenelle, amidst very extensive blocks."*

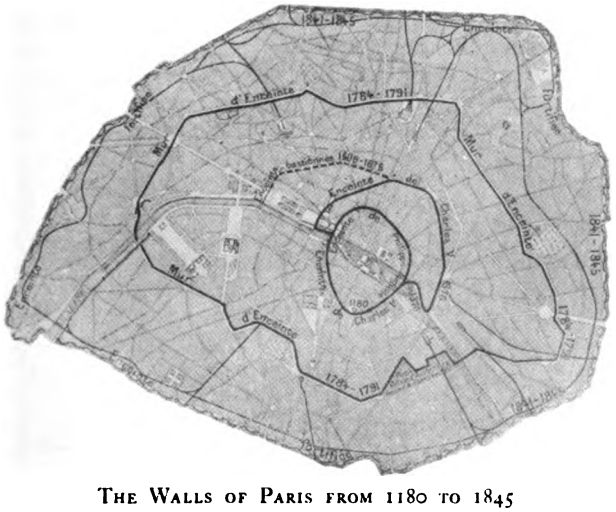
*Commission d'extension de Paris: Considérations Techniques Préliminaires, p. 56. Published by the Préfecture du Department de la Seine.

Radial Traffic Arteries

In making this statement, the Committee on the Extension of Paris has evidently had in mind the suggestions by the architect Eugène Hénard aiming at the creation of a central *perimètre de rayonnement* from which broad arteries should radiate in all directions. By a comparative study of the city plans of Berlin, London, Moscow, and Paris, Hénard arrived at the conclusion that on the one hand, the present *perimètre de rayonnement* of Paris, formed, according to Hénard, by the great inner boulevards on the north and the Boulevard St. Germain on the south, is too extensive, and that, on the other hand, the number of radiating arteries is insufficient. He therefore proposed to combine new and existing, but very much widened, arteries into a system of two north to south and two east to west magistral lines of communication supplemented by diagonal avenues radiating from the points of intersection. In this way a central traffic circuit, from which thoroughfares should radiate in all directions, would have been formed.*

The tendency to further a centralization of traffic inherent to this system has not found sympathy with the committee on the extension of Paris, which thus expresses its opinion: "It has been proposed to create a less extensive perimeter of radiation. It would scarcely suit a city, the expansive force of which is so great and which, perhaps, in a century will have quintupled its area. And where create this little *perimètre de ravonnement?* A very elastic question, because the center of Paris is not fixed. It is, in reality, the Place des Vosges under Henry IV, the Palais Royal during the Revolution, the Place de l'Opéra yesterday, today the Rue Royale. The street system can certainly be improved, but one must not think that it is thoroughly bad and that it ought to be remade from top to bottom. Besides, in this matter the too simple formulas are vain and dangerous. The improvement of the street plan of Paris does not consist in finding a center or a perimeter of radiation, in duplicating the main *croisée*, or in creating four great radiating arteries. Such a plan, while too symmetrical, either does not answer exact needs, or is not to be realized in some parts, or is already realized in others. Paris exists, and, in order to solve the problem, it is perhaps as proper to observe as to reason."*

*Eugène Hénard: Etudes sur les transformations de Paris. La Percée du Palais Royal. La nouvelle grande croisée de Paris. 1904. La circulation dans les villes modernes. L'automobilisme et les voiès rayonnantes de Paris. 1905.



THE WALLS OF PARIS FROM 1180 TO 1845

PARVIS DE NOTRE DAME—XVIITH CENTURY
By courtesy of George H. Gray, Esq.

All the arguments thus put forth by Hénard's critics are not equally happy, but, in the main, they testify to a sensible recognition of the fact that Hénard's projects suffer from having been evolved too much in the abstract. Aside from the circumstance that his theoretical reasonings, which certainly do not lack merit, seem to have been extensively based on an insufficient knowledge of the actual conditions in the various localities, it remains to be stated that his conclusions typify those not too uncommon attempts at theoretical generalization, the practical value of which, in this special field, seems particularly dubious. The peculiarity of local conditions and the intricacy of the problems involved are apt to cause a failure when the theoretical scheme is applied to practical diversified cases. On principle it may well be maintained that in replanning a city no other general method is appropriate to apply than the closest possible adaptation to the local conditions and the local needs, as far as they can be ascertained, for the present, and estimated to some extent for the future.

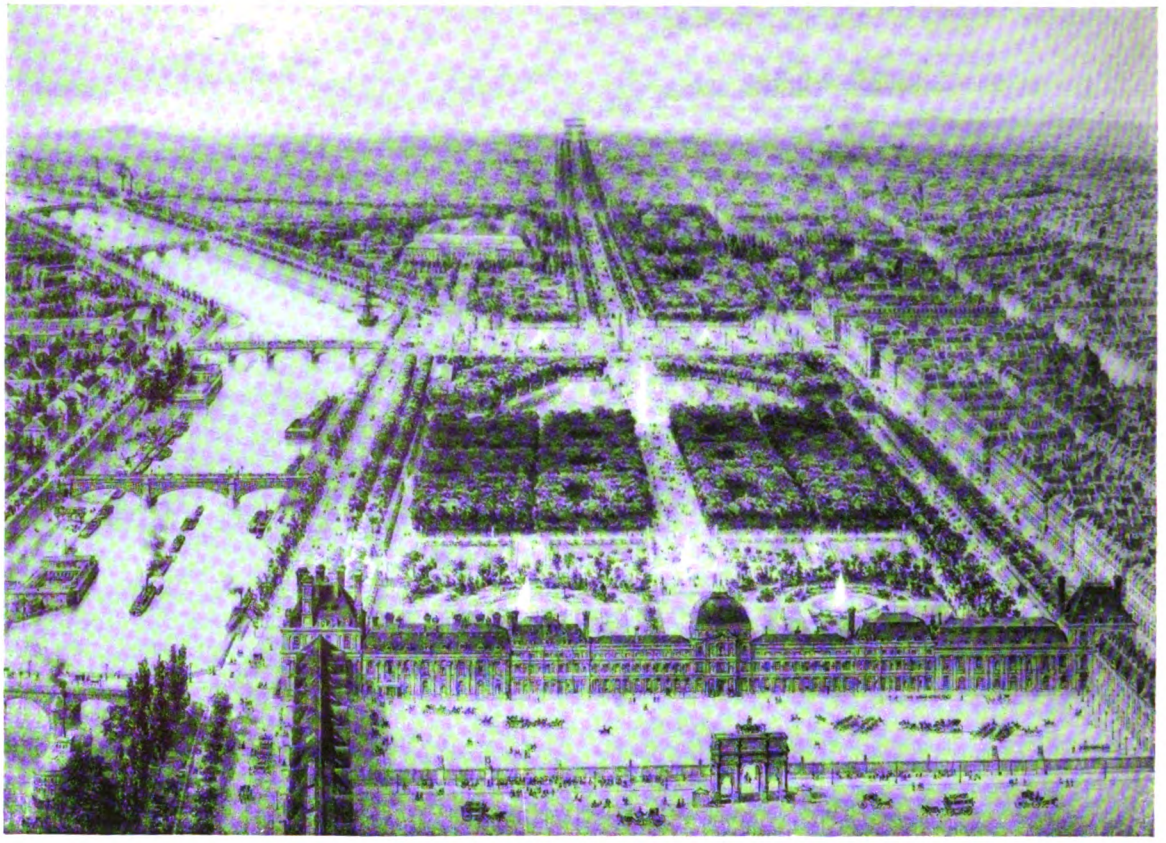
Shifting Centers of Congestion

In regard to Paris and its "center" the committee on the extension of the city hints at the fact that the greatest concentration of traffic nowadays is to be found in another region than was the case thirty, fifty, or more years ago. The committee helps us to appreciate this fact by communicating some pertinent figures. The average number of vehicles circulating between three and seven o'clock in the evening, the time of greatest intensity of traffic, during a period of seven days at the following points was:

	1881	1912
At the Crossing, Rue de Rivoli and Boulevard Sebastopol	4.702	6.097
At the Crossing, Boulevard des Italiens and Rue de Richelieu	3.829	7.327
In Avenue des Champs Elysées (at the Place de la Concorde)	1.435	11.634
At the Crossing, Rue Royale and Rue St. Honoré	2.117	12.222

Thus, in 1881 the crossing of the Boulevard Sebastopol and the Rue de Rivoli was the most frequented of these four points, the crossing of the Rue de Richelieu and the Boulevard des Italiens being second. In 1912 the order is entirely reversed, the more westerly localities of the Rue Royale and

*Considérations Techniques Préliminaires, pp. 53, 54.



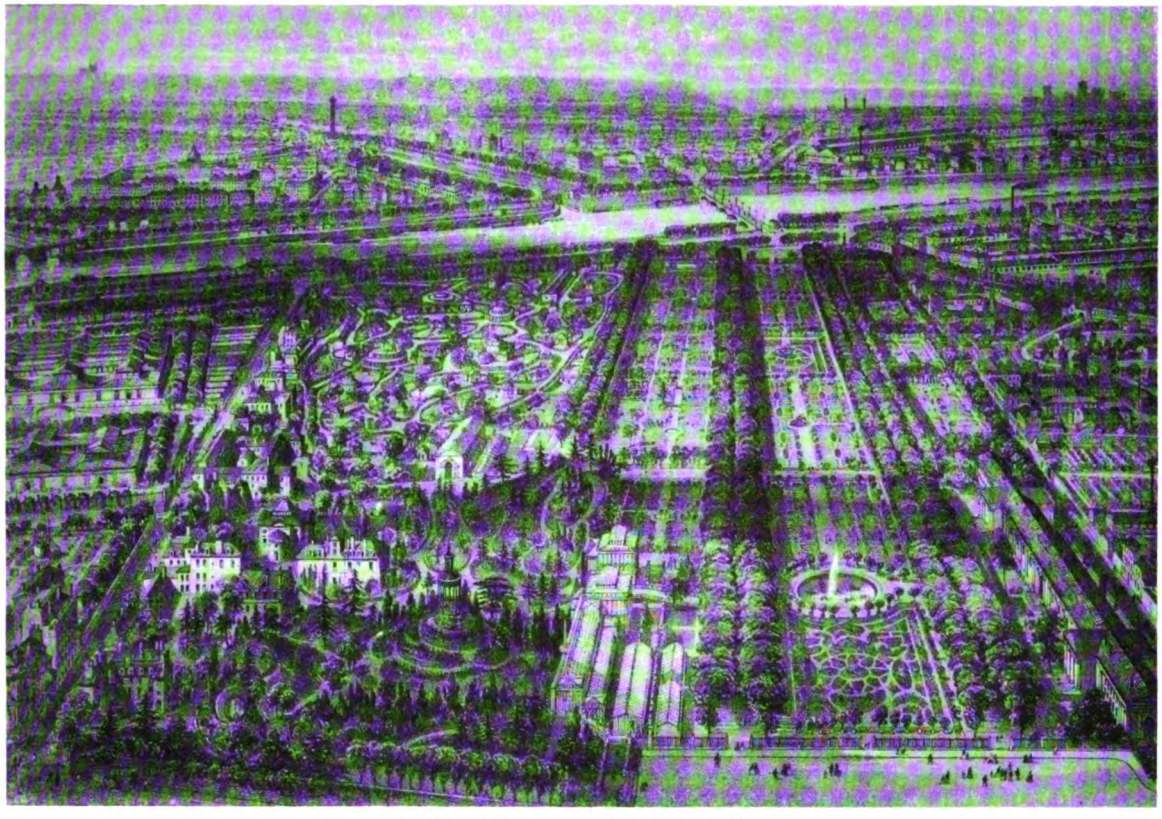
PALACE AND GARDENS OF THE TUILERIES.—BIRD'S-EYE VIEW FROM ABOVE THE PLACE DU CARROUSEL
Drawn by Felix Benoist. Lithographed by J. Arnout. Figures by A. Bayot

the Avenue des Champs Elysées showing a much greater frequency. Nowadays, the high tide of traffic in Paris is to be found in the Place de l'Opéra, the Avenue de l'Opéra, and the adjoining boulevards, in the Rue Royale, the western section of the Rue de Rivoli, the Place de la Concorde, and the Avenue des Champs Elysées. The neighborhood of the Opera and of the Place de la Concorde is now the great traffic center of the capital.

Traffic Currents

It has been observed that the traffic congestion in these most frequented of the streets of Paris is not much less than or equal to that prevailing in the most crowded, but generally narrower, thoroughfares of London. Considering the difference in size between the two cities, this may seem somewhat puzzling. But does not the explanation lie in the better regulation and direction of the London traffic currents? However, the serious endeavors which have been made in Paris in recent years, with a view to bringing some order and system out of the chaos of circulation, should be recognized. If they have been less successful than corresponding measures in London, it may, in some degree, depend on a difference of the national temperament north and south of the Channel. In formulating the new regulations, which the widespread use of the automobile has especially necessitated, the authorities have duly considered various suggestions made by Mr. Hénard in his meritorious studies on this matter.

The difficulties under which the circulation in Paris has labored for years have also been an invitation more closely to scrutinize the transformations achieved during the last century as to their value from this viewpoint. To begin with then, it may be remarked that an enterprise such as these unparalleled transformations represent would have been more than miraculous if its results had deserved the unbounded praise of which they sometimes have been the subject. On the other hand, the adverse criticism bestowed on this work has often been one-sided and unfair. It seems just that achievements of the past should be judged, not only according to the standards of the present, but also with due consideration of the different circumstances under which they were accomplished, as far as these can be estimated. In regard to the transformation of Paris, it should be remembered that this gigantic remoulding of an old city was started at a time when the railways, our chief means of rapid transit, still were in their first stage of development. Projects for extensive local railway nets as a medium to relieving congestion were nowhere anything more than matters of discussion. It was only while these operations were in progress that such schemes began to mature, and, though the idea underlying them was less readily adopted and realized in France than in some other quarters, yet it may be maintained that this idea everywhere has been rather slow in progressing toward some practical realization, only making headway the more rap-



JARDIN DES PLANTES.—BIRD'S-EYE VIEW
Drawn by Felix Benoist. Lithographed by Jacottet and Aubrum

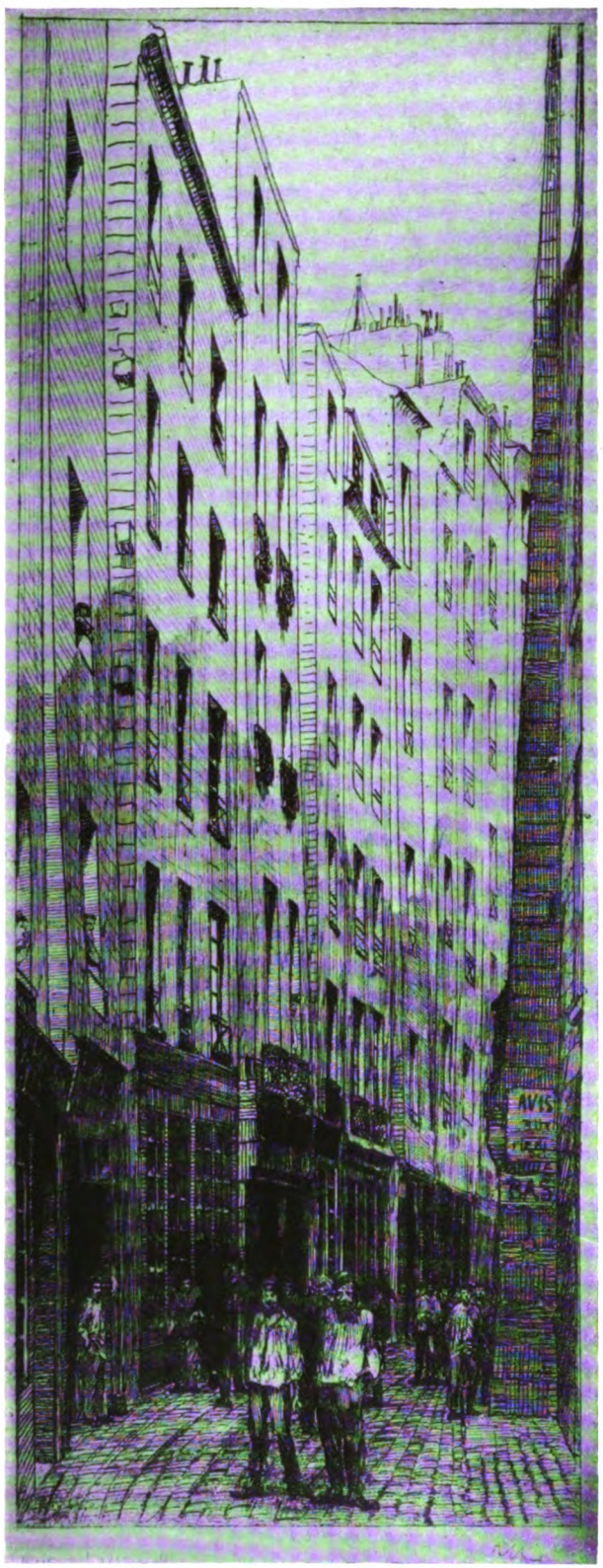
idly after the resisting barriers of that fundamental human instinct, conservatism, had been broken.

Haussmann and Napoleon III

How great was the need for a radical improvement of the street system of Paris, about the middle of the last century, anterior to the introduction of tramways, local elevated railroads, and subways, is not easy to estimate. Except the boulevards, the Rue Royale, the finished part of the Rue de Rivoli, the Rue de la Paix, the Rue Castiglione, and one or two more streets, there was not a thoroughfare in Paris, the width of which exceeded 16 or 17 yards, while the city counted more than a million inhabitants. "Paris of the time of Louis Philippe," says Victorien Sardou, "was only slightly different from Paris of the Revolution and of the First Empire," the author then evidently having in view the central parts of the city where the conditions had not been considerably changed through the transformations planned during the Revolution and later effected in part, chiefly during the Consulate and the First Empire. These transformations represented an effort which lost its impetus when Napoleon I had to recede; plans evolved by the Seine prefect Chabrol during the Restoration did not materialize, and the operations achieved during this period and during the July monarchy were quite inadequate to the needs. Thus Napoleon III and Haussmann had to make good the neglect or inability of preceding administrations. While this circumstance primarily accounts for the vast scope of the plans, it also sufficiently explains the rapidity of action characteristic of their execution. Of course, the political opponents of Haussmann and the Empire, and their temporary followers, preferred to regard the whole enterprise chiefly as a political affair, initiated less with public welfare in view than with the object of facilitating the movement and action of troops in the event of an uprising, and of securing to the capital a dazzling splendor of appearance. Certainly, these opinions, upheld also by some contemporary writers on the city plan of Paris, do not render justice to the motives; they attach too great an importance to some while depreciating the actual weight of others.

The Railway Problem

In formulating an opinion respecting the merits and demerits of a street system, from the viewpoint of circulation, it should be borne in mind that the traffic problem of great cities, generally seen, can not be reduced to the simple formula of a question regarding the relative importance of railroads and streets as traffic carriers. Even exceptionally good local railroad connections do not, according to experience, constitute a remedy against the evil effects of a deficient system of main thoroughfares. In London, for instance, they have had reason to regret the neglect of preceding generations who have failed to achieve that improvement of the street system which should have gone along with the gradual construction of the highly developed local railway net. Paris, while long suffering from insufficient railroad facilities, is better



RUE ST. VICTOR, PARIS, 1866
After the etching by Martial

supplied with both radial and, especially, circumferential street connections; its great railway termini, even if more accentric than most of those in London, are generally more easy of access, not one of them being so squeezed in as, for instance, the terminus of the Great Eastern and the North London Railways, the main entrances of which "discharge on to a street about 62 feet in width, leading to the heart of the city by a thoroughfare having a width of about 40 feet." "The location of the railway termini in London affords a flagrant example of disregard of the most elementary principles of town planning," is the general estimate of a well-informed contemporary observer. "A royal commission," the same critic says, "reported in 1846 against a proposal for a great central station in London, but recommended that if railways were hereafter admitted to the center, this should be done in conformity with a uniform plan. It is instructive to consider how absolutely this recommendation has been ignored."*

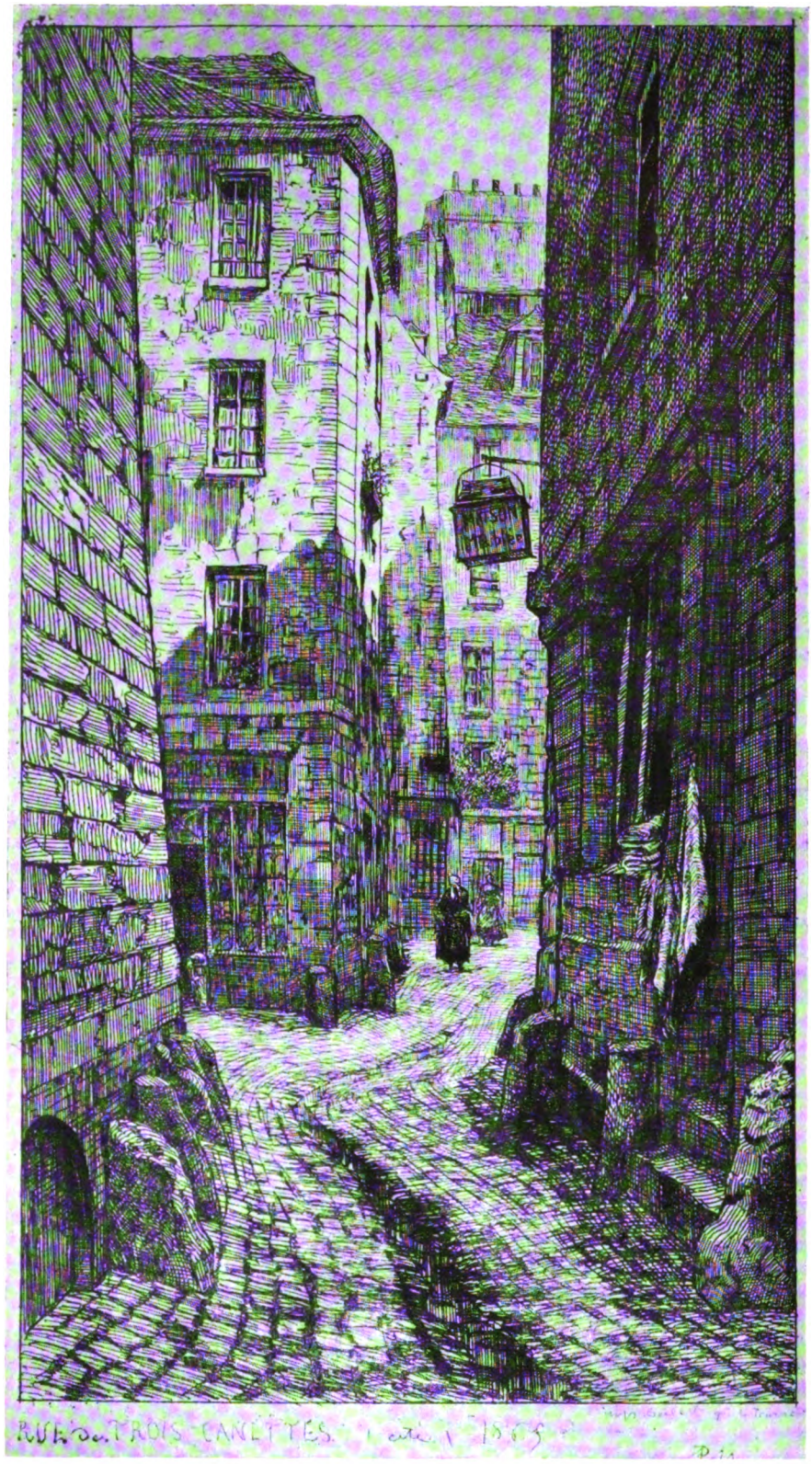
About a dozen of London's great railway termini are located on the circuit of a central area, the diameter of which measures, on an average, about two miles; in Paris all the main line railway termini, except one, are situated on a perimeter of slightly more than three miles' diameter. However, as the critic just quoted indicates, the advantages which the more central position of a majority of London's great railway stations may afford are very much counterbalanced by the disadvantages of a street system less well coördinated than the system of great arteries created in Paris, by Napoleon III and Haussmann. The greatest traffic improvement achieved in Paris since the creation of this street system has been the construction of subways, and it need not even be especially emphasized in what a high degree their establishment, as well as the construction of tramways, has been facilitated through the preceding extensive improvement of the street plan.

Preserving the Historic and the Beautiful

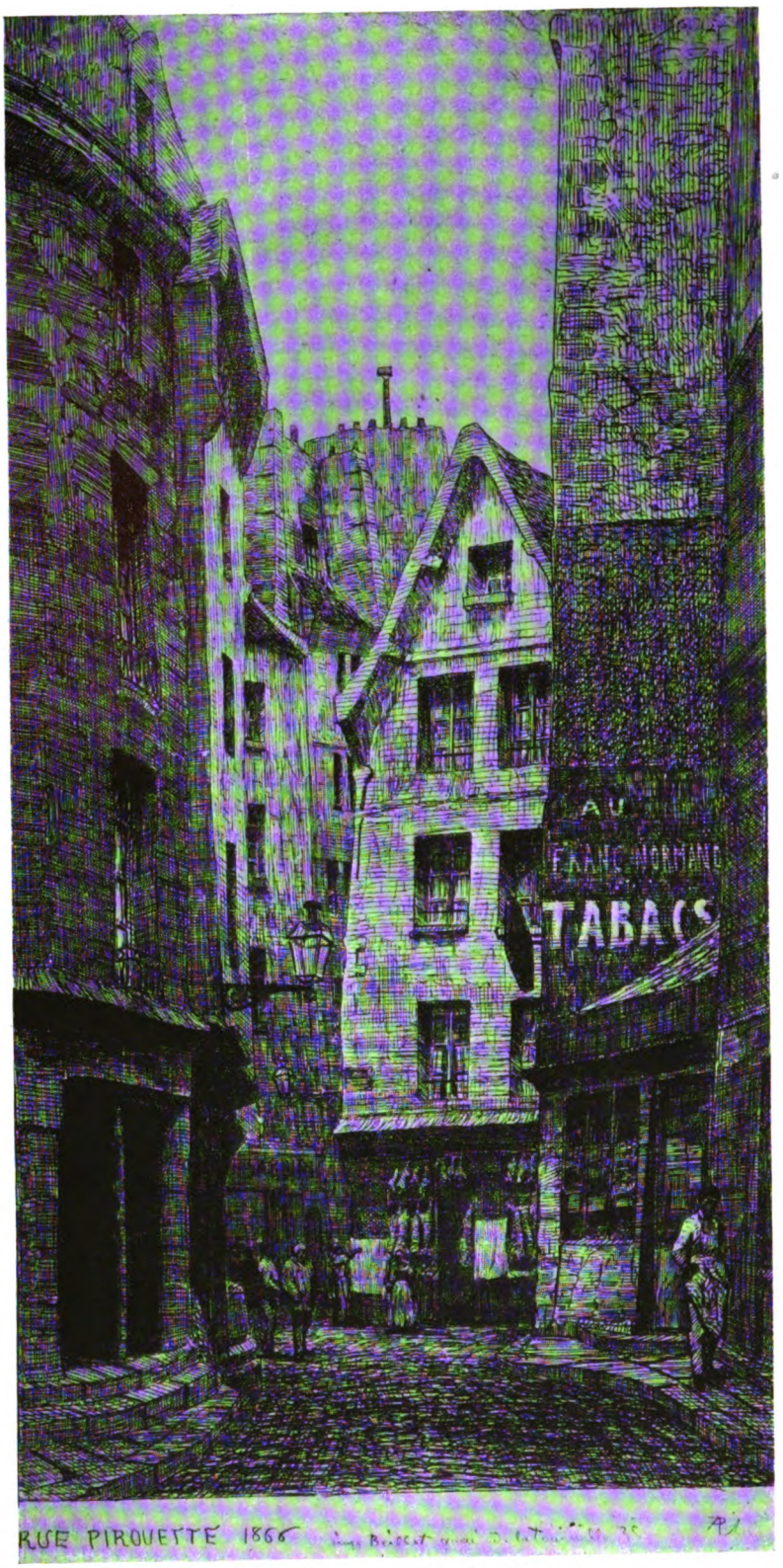
Incidentally, in this connection, it may be worth observing that a subway system, though more expensive than an equal system of elevated railroads as regards initial cost, in the long run will prove less expensive in a city like Paris, to which the preservation of its external attractiveness is of really great economic importance. The monetary interest may seem not altogether sympathetic as a motive, yet one could only wish that economic considerations would more often produce a similar, beneficial effect of safeguarding great esthetic values.

Respecting this matter there has been noticeable, in recent years, the awakening of a better conscience, anxious to preserve the beauty of the city and quite independent of the economic speculation surrounding the policy of protection. After having seen, in Paris, the state of dilapidation into which many old, historically or artistically interesting buildings or groups of buildings have been allowed gradually to fall, one cannot but feel grateful for the energetic reaction against destructive tendencies or against that passivity which, in the years preceding the war, manifested itself in the attitude of the city and of the state, and which was vigorously sustained in many quarters. Certainly, connected with the now planned

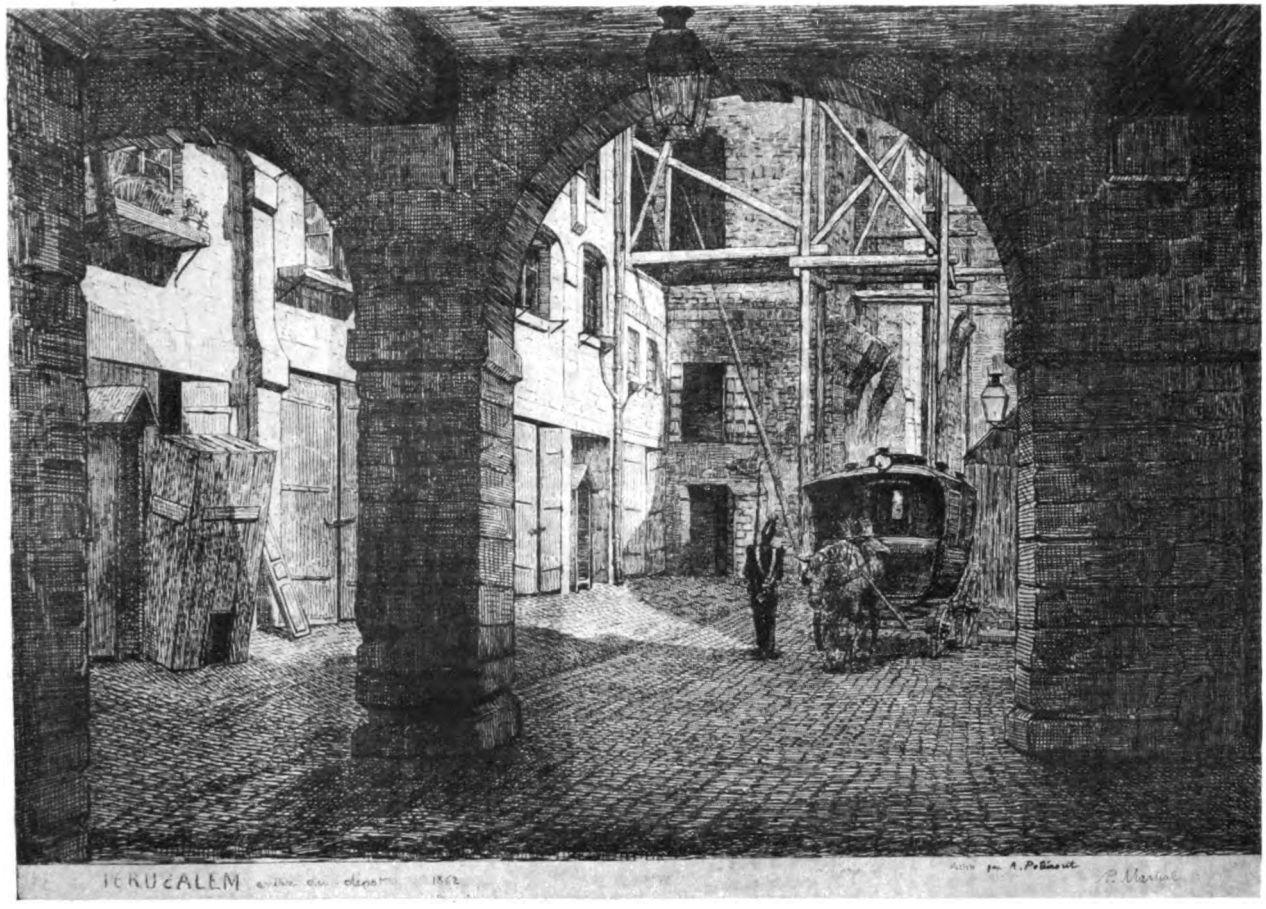
*W. E. Riley: "City Developing." In Transactions of the Town Planning Conference in London, 1910.



Rue des Trois Canettes (Île de la Cité), Paris, 1865
After the etching by Martial



Rue Pirouette, Paris, 1868
After the etching by Martial



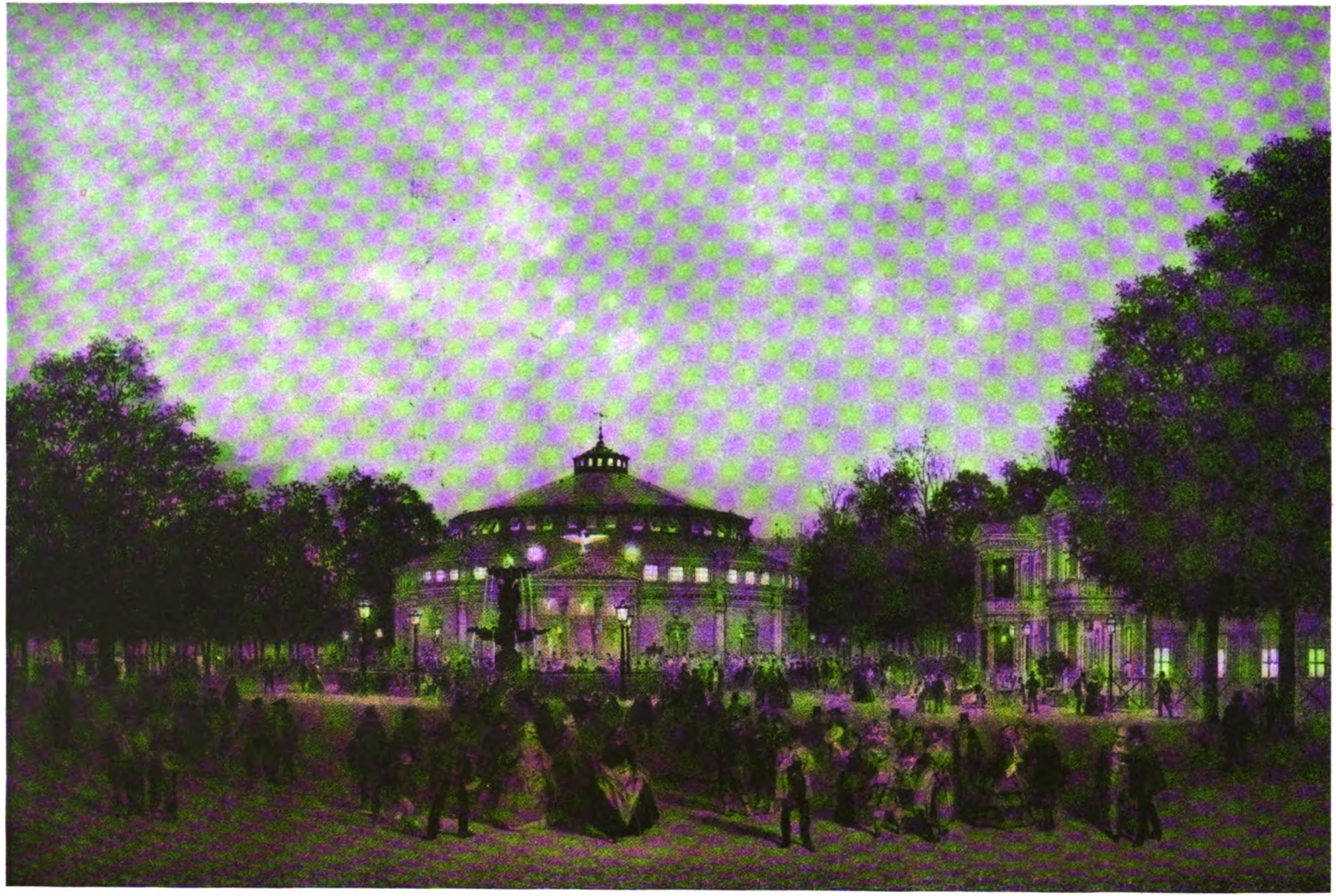
RUE DE JERUSALEM, PARIS, 1862
After the etching by Martial. From a drawing by Potémoret

transformative operations are interests more vitally important to the community as a whole than the protection of the city's external aspects, yet in regard to Paris it may be maintained that indifference on this point would be especially deplorable at a time when the city is about to enter on a new stage of development.

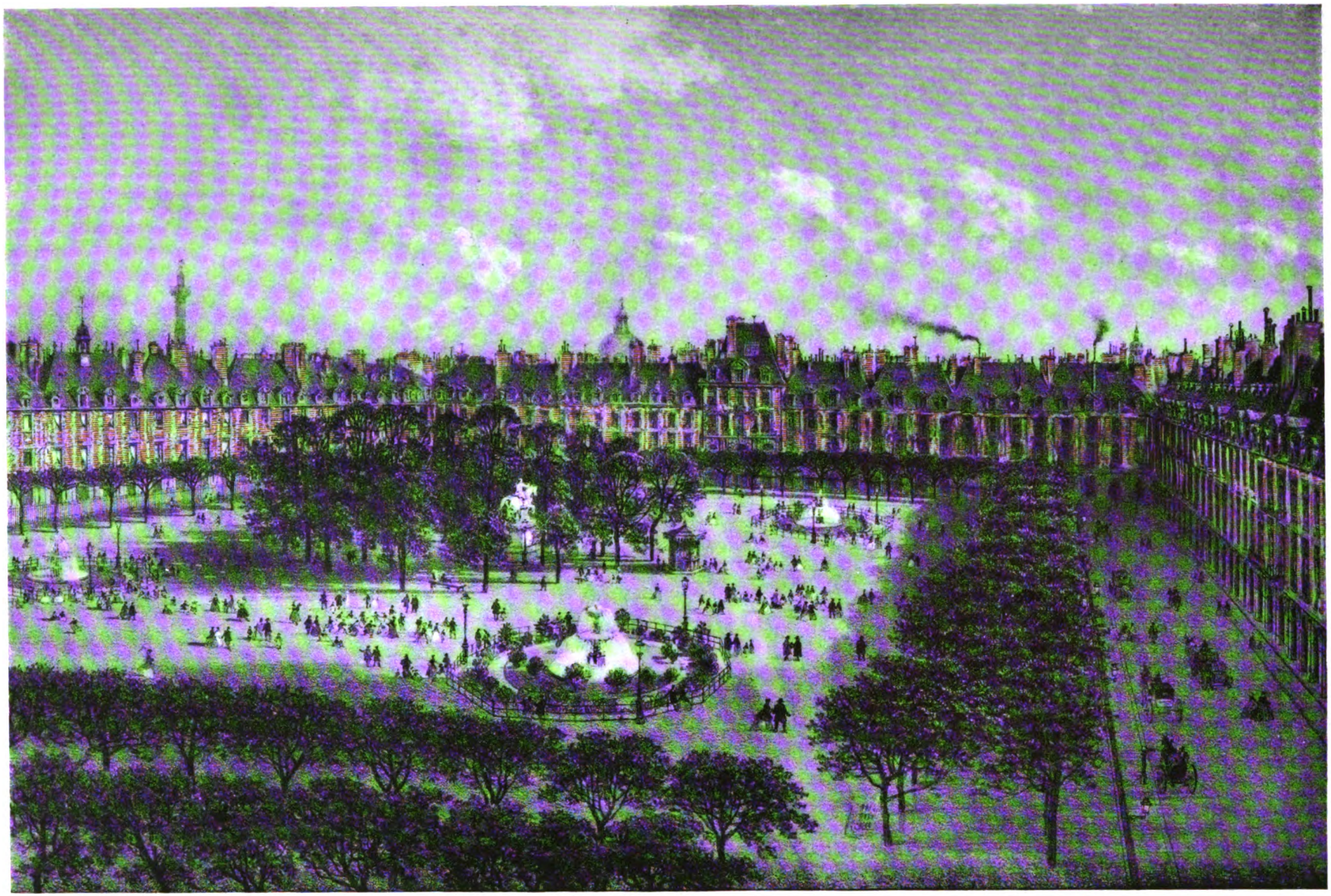
The Central Regions Problem

Before devoting closer attention to this phase of the problem, it seems pertinent briefly to survey the most important measures affecting the central regions of the city. The necessity for many of these operations was already perceptible at the time of Haussmann, and some of them, as those dealt with in the preceding article,* were actually then planned. Perhaps most apparent at that date was the inadequacy of the connections in the directions north and south. The opening of the Boulevard Sebastopol did not relieve the traffic pressure in the adjacent Rue St. Denis and Rue St. Martin, to which Haussmann testifies in his "Mémoires." The traffic problem surrounding Les Halles, which had become especially acute since the reconstruction and enlargement of the market halls, was not solved through the opening up of the Rue de Turbigo, the Rue du Pont Neuf, and the Rue des Halles, the partial widening of the Rue de Rambutcan and other operations. Farther to the west, the inadequacy of the Rue de Richelieu as a passage between the inner boulevards and the region of the Louvre became increasingly evident. East of the Boulevard Sebastopol, a better connection between the vicinity of the City Hall and the neighborhood of the Place de la Republique has long been almost equally urgent. Consequently, in order to supply these circulatory needs, the Commission on the Extension of Paris suggests the widening of the Rue St. Denis, the Rue St. Martin, the Rue Montmartre, the Rue Montorgueil, the Rue J. J. Rousseau, the Rue de Richelieu, the Rue du Temple and the Rue Vieille du Temple. Furthermore, the program includes the cutting through of the Rue Beaubourz between the Place de l'Hotel de Ville and the Rue de Turbigo, actually begun before the war, the extension of the Rue du Louvre northward to the Rue Montmartre, the widening of the Rue de Vivienne, the Rue Notre Dame des Victoires, and the Rue Croix des Petits Champs, and, finally, the opening up of a new artery northward from the Rue Montorgueil to the Boulevard Magenta, with the object of establishing a convenient through route between the Halles and the two great railway termini on the north, the Gare du Nord and the Gare de l'Est. Meanwhile the question of removing the market halls to more peripheral localities and of converting their area into a

*"The Plan of Paris," The Journal of the American Institute of Architects, June, 1918.



CIRQUE DE L'IMPERATRICE
Drawn and lithographed by Ph. Benoist. Figures by Bayot



PLACE ROYALE (NOW PLACE DES VOSGES)
Drawn by Ph. Benoist. Lithographed by Eugene Ciceri and Fichot. Figures by Bayot

garden square has been reconsidered. Even if this plan should materialize, the execution of the projected operations affecting this area would be advisable.

To improve the transversal connections in this region, Haussmann planned and also carried out, in part, the opening up of the Rue Etienne Marcel between the Boulevard Sebastopol and the Place des Victoires, and, farther north, the cutting through of the Rue Réaumur and of its continuation to the west, the Rue du 4 Séptembre. Of still greater importance at the time was, of course, the prolongation of the Rue de Rivoli eastward to the Rue St. Antoine. To supplement this work it has been decided to prolong both the Rue Etienne Marcel and the Rue Réaumur eastward to the Boulevard Beaumarchais, which operations will be facilitated through the possibility of widening existing narrow streets. The logical consequence of the extension of the Rue Etienne Marcel will be further to widen the Rue des Petits Champs and the Rue des Capucines, which, beyond the Place des Victoires, continue the Rue Etienne Marcel to the west. The great importance of these operations is evident. So far the only fairly direct convenient connection between the neighborhood of the Place de la Bastille on the one hand, and the vicinity of the Opéra and the Madeleine church on the other, has been by way of the Rue de Rivoli; the new arteries will offer two good alternative routes, thus apt to relieve the pressure on the Rue de Rivoli.

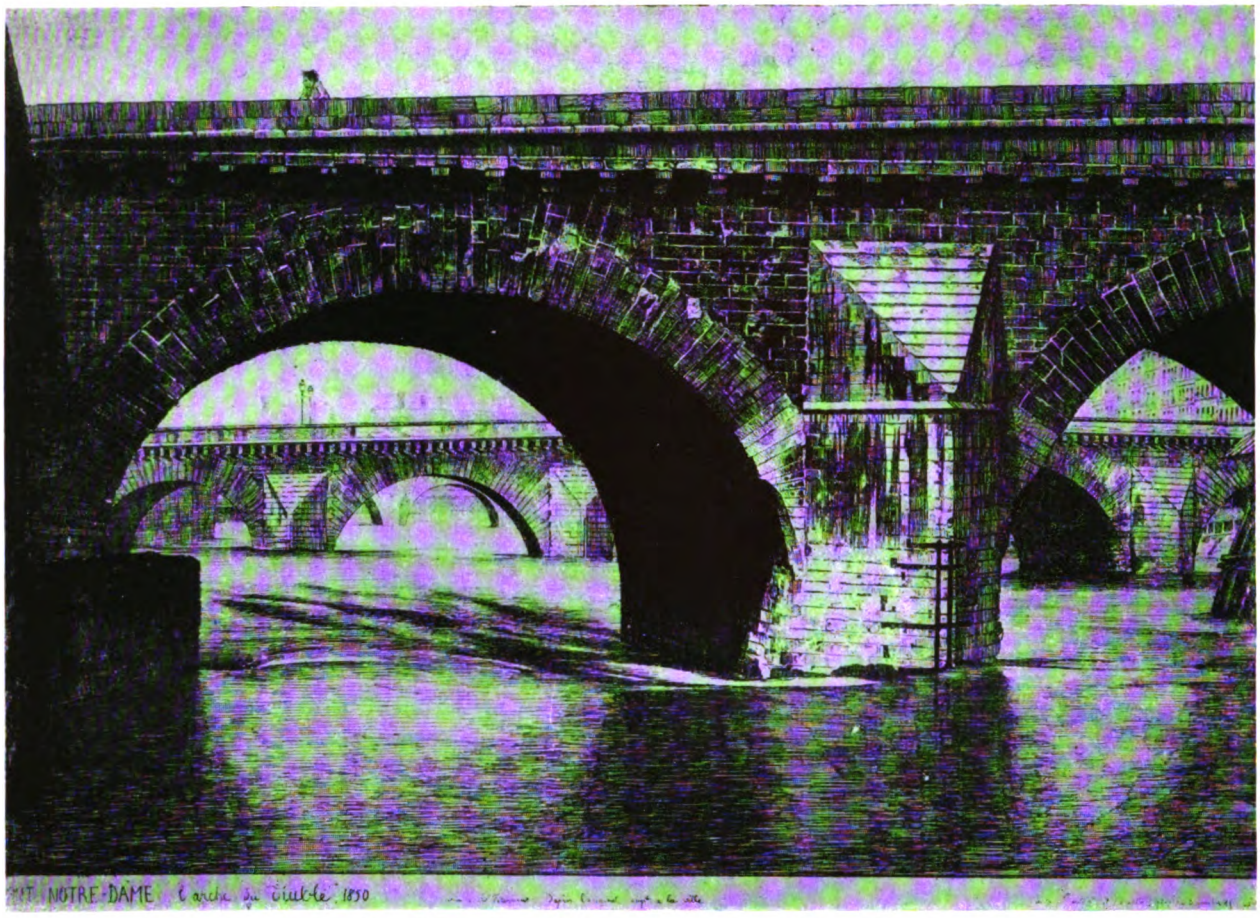
Moreover, in order to help relieve the congestion in the Rue de Rivoli, it has been deemed necessary to widen the Rue St. Honoré and the Rue du Faubourg St. Honoré as far as the Avenue Hoche. On the other hand, the Commission on the Extension of Paris has not accepted Hénard's idea of continuing this line eastward through the court of the Palais Royal, thus duplicating the east and west axis of the great *croisée* in its whole length.

South of the Seine

On the south bank of the Seine there has long been a most urgent need to provide better access to the Boulevard St. Germain. Between the Boulevard St. Michel on the east and the Pont de la Concorde on the west, there exists actually only one right-angled street exceeding 15 or 16 yards in width. Nevertheless, a very heavy volume of traffic is carried daily by the bridges crossing this stretch of the river, the Pont Neuf, the Pont du Carrousel, the Pont Royal, the Pont de Solferino. In this area, four separate operations either have been decided on or are considered.

To the prolongation of the Rue de Rennes, dealt with somewhat at length in the previous article, we have to add the widening of the Rue Dauphine and its access to the Boulevard St. Germain, and of the Rue du Bac, and finally the cutting of a new street opposite the Pont du Carrousel, to be bifurcated in the direction of the Rue de

PLACE DU CARROUSEL, PARIS, 1849
After the etching by Martial



PONT NOTRE-DAME (L'ARCHE DU DIABLE), PARIS, 1850
After the etching by Martial

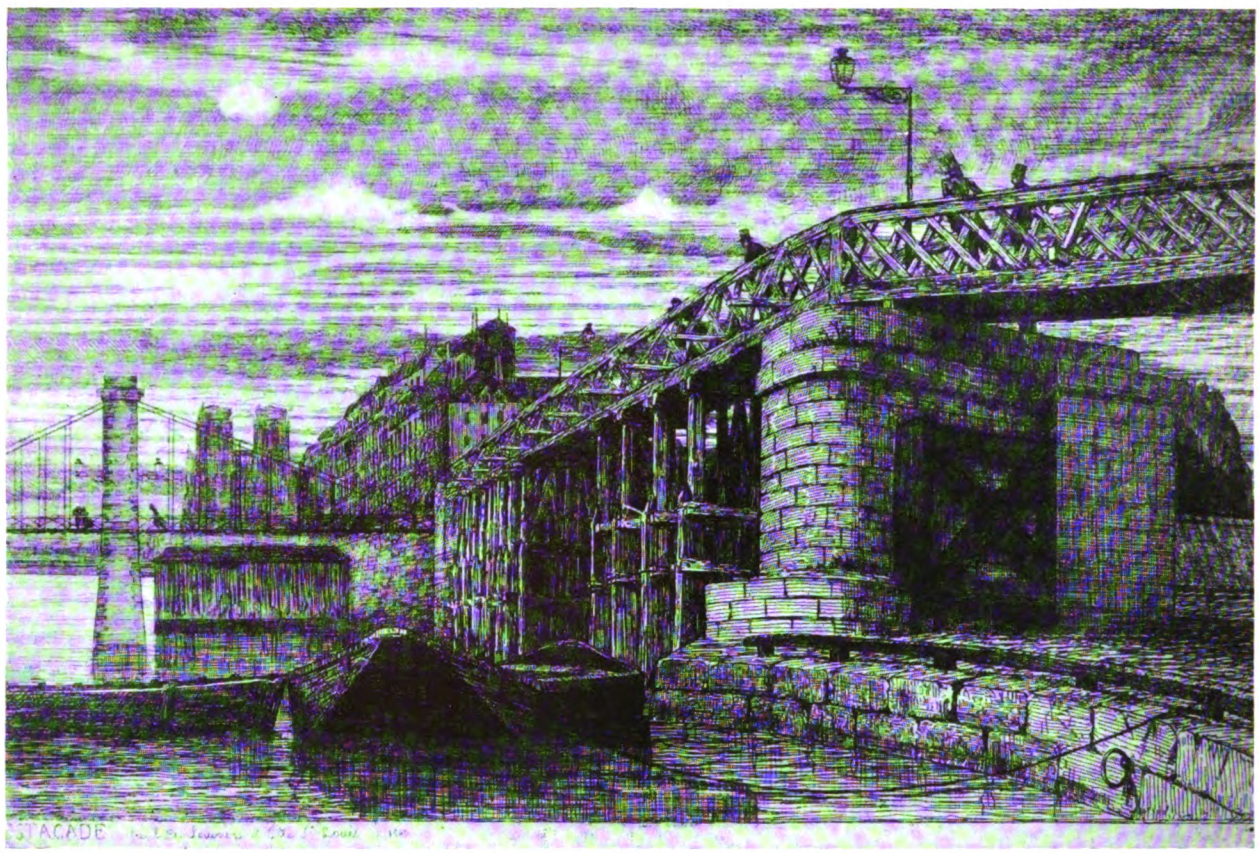
Rennes and of the Boulevard Raspail. Like the extension of the Rue de Rennes, this last-mentioned operation was planned at the time of Haussmann.

The Various Schemes

An exhaustive review of the schemes mapped out by the Commission d'extension de Paris (which we do not propose to give) would have to enumerate more than a hundred particular projects, many of which are to be considered more as preliminary suggestions than as definitive plans. Three chief aims have evidently been kept in view: The improvement of radial thoroughfares, the improvement or completion of concentric or transversal routes, the opening up or widening of a number of diagonals in various, generally peripheral parts of the city. The new diagonal connections proposed are, however, neither numerous nor very extensive. There is nothing in this line on the scale of the Boulevard Raspail, the Rue de Turbigo, or the Avenue de l'Opéra. On the other hand, the need of these diagonals is obviously pressing, almost all of them having been classified among those improvements designated as "most urgent ones," for which means have been provided under the loan of 900,000,000 francs which the city was empowered to raise in 1909.

Losses Through Demolition

Several of these operations are particularly interesting from the viewpoint of communication, and only the limited space at our disposal prevents us from dealing with them more extensively. From an esthetic point of view, at any rate, our attention is first claimed by the impending transformation of the central quarters which is certain to entail the destruction of numerous ancient, historically remarkable, or beautiful buildings. Paris has to guard against precipitate devastation of this kind, but it has to guard, in an equal degree, against danger to the aspect of the city involved in the new building activity. Inasmuch as losses through demolition of noteworthy old structures are forced by necessity, and thus are unavoidable, the erection of new and intrusive buildings in places were they are likely to disturb the harmony of their surroundings is even a worse evil. This applies especially to the encroachments threatening the architectural units subject to the so-called *servitudes spéciales*, a kind of disfigurement which Paris has experienced in recent years. Obviously, extensive transformations, even when not directly affecting these units, will enhance the danger of intrusions being made through the erection of new structures in their vicinity. So much harm had actually been done prior to the war that the



ESTACADE BETWEEN THE ÎLE ST. LOUIS AND THE ÎLE DE LA CITÉ, PARIS, 1840
After the etching by Martial

matter challenged violent criticism. On the one hand, several transgressions of the laws protecting the aforementioned architectural units had occurred, facilitated, it seems, through connivance or neglect on the part of the authorities. This was the case regarding, for instance, the Rue de Rivoli and the Place de l'Opéra. On the other hand, in consequence of the building ordinance of 1902, permitting greater maximum height of buildings and greater liberty in composing the elevations, bulky and, architecturally, all but regretful houses have been built in disturbing proximity of architectural units,—the Place de l'Etoile among others,—jeopardizing the harmony, balance, and dignity of their aspect. The ordinance of 1902 has also been made largely responsible for the violations of the "special servitudes," inasmuch as this law represents a general tendency apt to call forth such transgressions. Therefore, the main target of the attacks upon the destructive practices has been this law which brought about several useful reforms, for instance, in stipulating the provision of greater court areas, but, which on the other hand, went to an exaggeration in regard to permissible heights and, in loosening previous restrictions, invested the individual builder with too much liberty in framing the fronts and the outlines of buildings.

The Blot of High Buildings

It is this ordinance which has made possible the construction of architectural monstrosities like the Hotel Lutetia, at the corner of the Boulevard Raspail and the Rue de Sèvres, of the frightful "towers of Babel," erected close to the Place de l'Etoile, and of hundreds of other buildings in all parts of the city which stand as so many evidences of the blunders committed when certain infunctions of the ordinance were framed. Reaction against the new regulations has been natural on the part of those who hold that great creations in city planning should be placed on a level with other artistic *chefs-d'œuvre*, and, consequently, should be accorded, as far as possible, an equal protection. It was high time to sound the alarm when buildings of little or no artistic merit (often characterized by the most hollow, bombastic pretension, and, as regards height, expressive of a dawning ambition to emulate American skyscrapers) began to invade the Avenue des Champs Elysées, the neighborhood of the Place de l'Etoile, of the Place de la Concorde, the Place Vendôme, and the Place de l'Opéra.

However, a differentiation could, of course, be made between those parts of the city where protection is an especially vital interest from esthetic viewpoints, and those quarters where less vigorous regulations seem admissible. In other words, with a view to safeguarding the esthetic aspects of the city, a districting according to bulk, determined from these viewpoints, could be resorted to. Equally evident is the need of establishing building zones where the formal reticence secured by previous ordinances should be maintained. Street perspectives and architectural groups

of a uniform classical complexion and of acknowledged artistic merit ought not to be interfered with through letting loose too much formal freedom in their immediate vicinity. There are even those who deem it advisable to go to the reactionary extreme of restoring to general practice all the austerity of the earlier legislation. In their opinion, the institution of the new restrictions represents an unsuccessful attempt to introduce more diversity of design, unsuccessful in that architectural license has supplanted architectural discipline. They would rather prepetuate the monotony of effect sequent to the latter than see the streets of Paris, the stronghold of restrained classical art, developed into fields of experimentation for all kinds of showy architectural "individualism." To a great extent, they admit, it is a choice between unpretentious banality and pretentious platitude—and they rather prefer the former. To vindicate their choice and their opinion, they can point to the many instances where the temptations involved in the less rigorous restrictions regarding projective features and vertical developments have led to distasteful extravagance of display or even to vulgar formal excesses.*

*The craving for uniformity which, in concurrence with height limitation, may be conducive to an impressive unity of effect should certainly not be pushed to an exaggeration. The legitimate place of such uniformity is, however, the broad and straight avenues of our great cities, bordered by many-storied apartment houses, and not the streets of suburban quarters, lined by family dwellings. Unfortunately, contemporary building practice has extensively proceeded in the reverse manner, uniforming the detached family houses and constructing apartment buildings which from afar announce their demand for individual recognition.

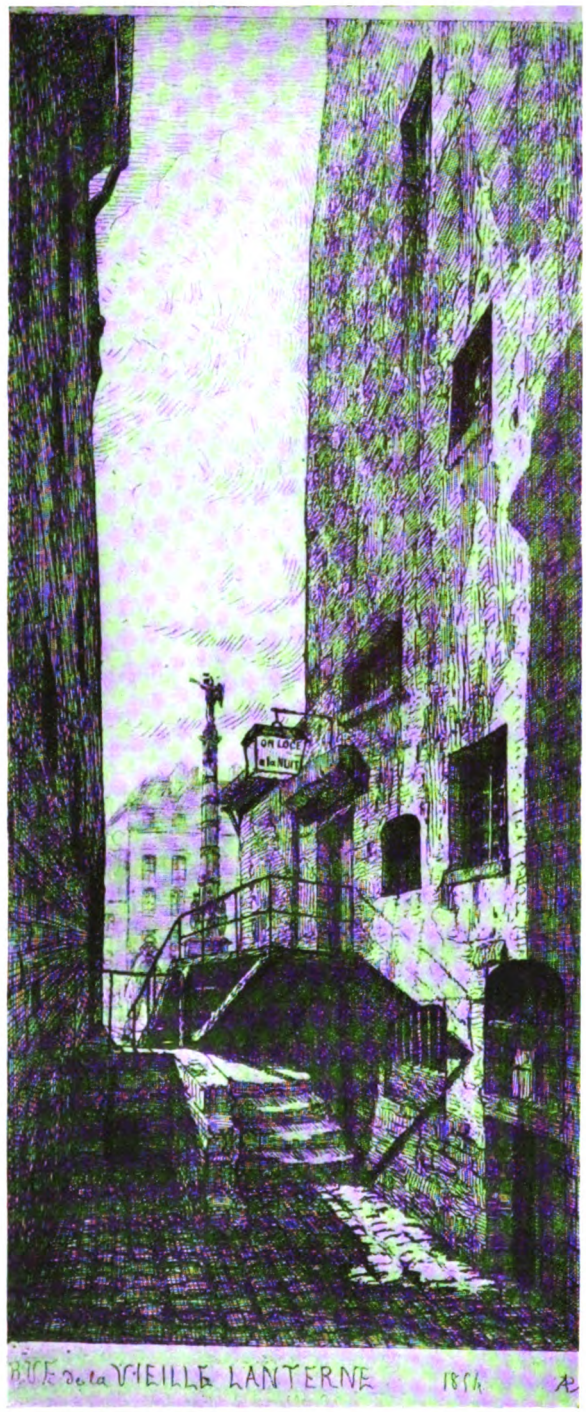
The Ordinance of 1912

Sixteen years have elapsed since the much-discussed law was promulgated. But, more than ten years ago, its injurious consequences had become so apparent that the matter was taken up for consideration in the Chambre des Députés. A modification of the ordinance was declared desirable and the Government was invited to take steps for bringing about a reform. At the same time, the representation requested that the Government should "enforce the laws, regulations, and compacts which guarantee the beauty of Paris." Within a short time, the Municipal Council discussed the question and took similar action. Yet the demanded revision, resisted, of course, by a great fraction of the house-owners, does not seem to have materialized so far.*

The enactment of this ordinance was, no doubt, at the time disapproved of in the French capital by many individuals and associations that are especially interested in the preservation of the esthetic aspects of the city, and

*Of the quite prodigious literature dealing with the ordinance of 1902 and its detrimental effects, only some of the most important may be mentioned: Charles Lortsch: La beauté de Paris et la loi. Paris, 1912; Conseil Municipal de Paris, Rapports et documents, 1908, No. 82: Rapport au nom de la 3me commission au sujet du projet de modification du décret du 13 aout 1902 portant règlement sur les hauteurs et les saillies des batiments à Paris. Présenté par M. Adolphe Chévioux, conseiller municipal; 1909, No. 7: Proposition relative à l'aspect de Paris et à l'observation des lois, réglements et servitudes concernant le style et la hauteur des maisons; Présenté par M. Emile Massard, conseiller municipal, 1909, No. 37: Note complémentaire à l'appui de la proposition rélative aux aspects de Paris, au style et à la hauteur des maisons; présenté par M. Emile Massard.

PONT ST. CHARLES, PETIT PONT, AND PONT ST. MICHEL, PARIS, 1838
After the etching by Martial. From the drawing by A. Varin



RUE DE LA VIEILLE LANTERNE, PARIS, 1854
After the etching by Martial

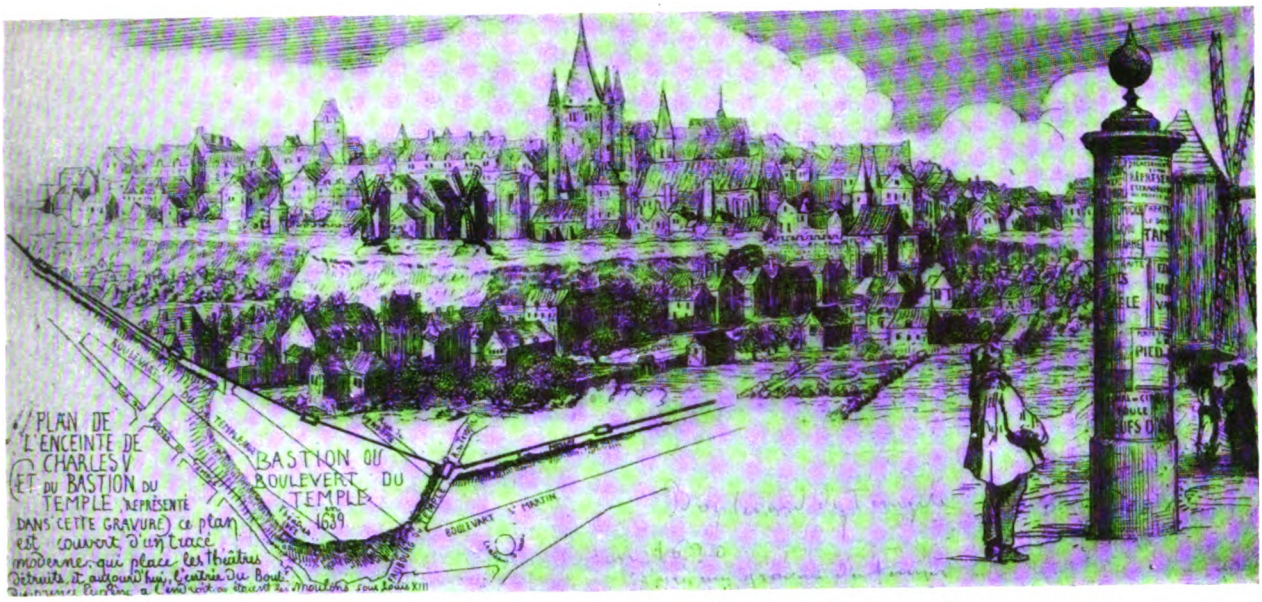
who foresaw its detrimental effects. As its menace has become increasingly apparent, their apprehension in regard to the future has grown, especially in view of the impending transformations. By causing disfigurement, the ordinance will, if maintained, increase the esthetic losses which these operations necessarily will entail. The doom of many an old building, well worthy of being preserved by virtue of artistic value or historical interest, will be sealed. With a view to preventing, as much as possible, this kind of loss, an increasing activity has developed in Paris in recent years. The "inheritance from the past" is no more so exposed to indiscriminate devastation as it was during the last century, especially during its earlier half. Many, perhaps most, of the vandalistic acts were given a sort of sanctity by being committed in the name of "public utility." An euphemistic pretense, when one considers how there were sacrificed many ancient, memorable structures which could have been saved by being adapted for other purposes or by a slight modification of city-planning schemes. The secularization of feudal and ecclesiastic domains during the Revolution was followed by a real tempest of devastation. In framing the projects for the replanning of Paris, collectively known under the name of the "Plan des Artistes," the Revolutionists planned nothing less than a systematic destruction of these estates. Their confiscation was, so to speak, at the basis of the schemes, many of which were of the most problematic utility, while the execution of almost all of them would imply the destruction of one or several ecclesiastic or feudal buildings. Under the circumstances, it is not strange, incidentally, that the "Plan des Artistes" appears rather to be a mere juxtaposition of schemes than to embody an effort to combine and coördinate them in an organic, well-determined way. To some extent, the plan was a compilation of earlier, sporadic projects.*

The Passing of Old Paris

However, while none of the projects contained in the plan seems to have been realized during the Convention or the Directory, not less than fifty-seven ecclesiastic establishments had been demolished before the beginning of the Consulate! In the period 1800–1814 another twenty-six were pulled down, thirty-one between 1814 and 1830, eleven between 1830 and 1848.† These figures sufficiently prove that the Second Republic and the Second Empire are not alone responsible for the devastation of

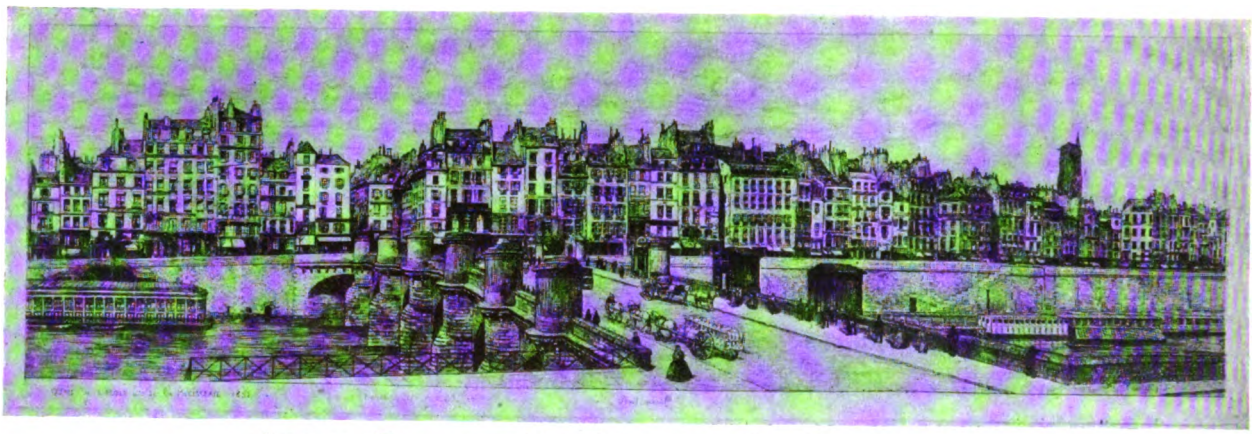
*This was the case to so great an extent, indeed, that some of the esthetically and otherwise most important of the projects contained in the plan, which was compounded in the years 1794–96, belonged to the group of adopted ones. Thus, the later Rue de la Paix and the Rue Castiglione had been suggested by Abbé Langier in his "Observations sur l'architecture," published in 1765. The idea of opening up a street along the Tuileries garden, coincident with the Rue de Rivoli, may be traced as far back as the time of Louix XIV, and it was urged by the architect Petit-Radel in 1789 (see his "Description d'un projet pour une salle on basilique national"). The interesting project for an avenue to be opened up in the main axis of the Colonnade du Louvre, according to testimony of the architect Boffraud, had originally been discussed simultaneously with the planning and erection of the Colonnade (see Mercure de France, June, 1755), and it was revived by Langier in his above-mentioned work; the idea of transforming the emplacement of the Bastille into a vast circular place had been put into definite form by Palloi in the year 1792 (see Palloi: "Addresse et projet général dédié à la nation"); finally, those projects which aimed at forming a place and avenue in front of the Church St. Sulpice and at the disengagement of the Panthéon and the opening up of a street (the later Rue Soufflot) in its main axis reproduced, in the main, original projects by Servandoni and Soufflot, respectively.

†According to statistics communicated by Eugène Despois in his work, "Le vandalisme révolutionnaire." In this connection it is interesting to recall the circumstances which account for the preservation of the Tour St. Jacques. Being the bell-tower of the church St. Jacques-la-Boucherie, which was disposed of and demolished, the Tour St. Jacques was saved only through the intervention of the architect who transacted the sale. On his own responsibility, he introduced into the deed a special clause according to which the preservation of the tower was made a condition.

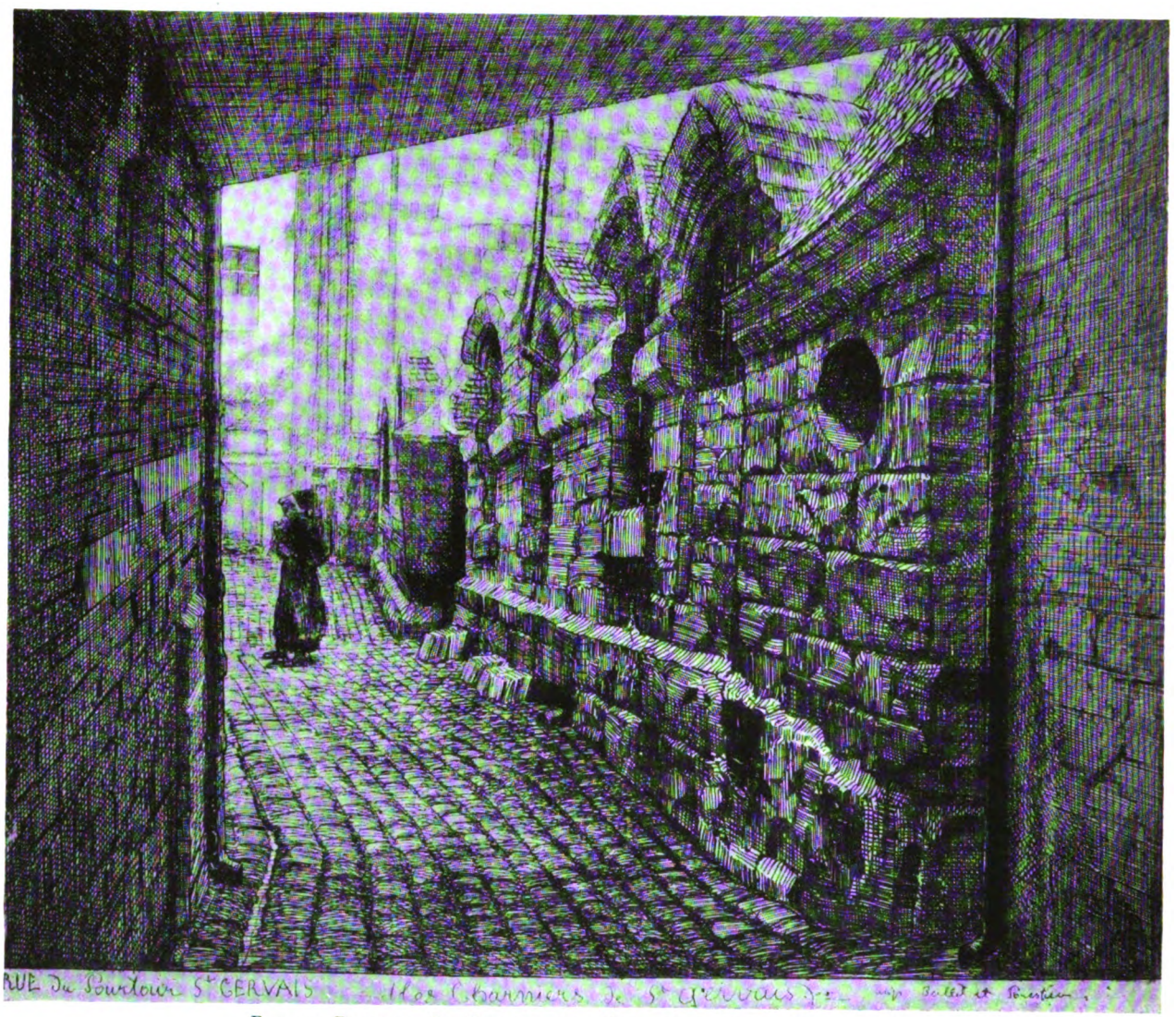


PARIS, 1639.—THE MODERN BOULEVARD DU TEMPLE IS TRACED TO SHOW THE TRANSFORMATIONS
After the etching by Martial. From an engraving of the period

PASSAGE DE LA MARMITE, PARIS, 1863
After the etching by Martial. From a drawing by Maxime Lalanne



Quais de l'Ecole, de la Megissérie and the Pont-Neuf, Paris, 1851
After the etching by Martial



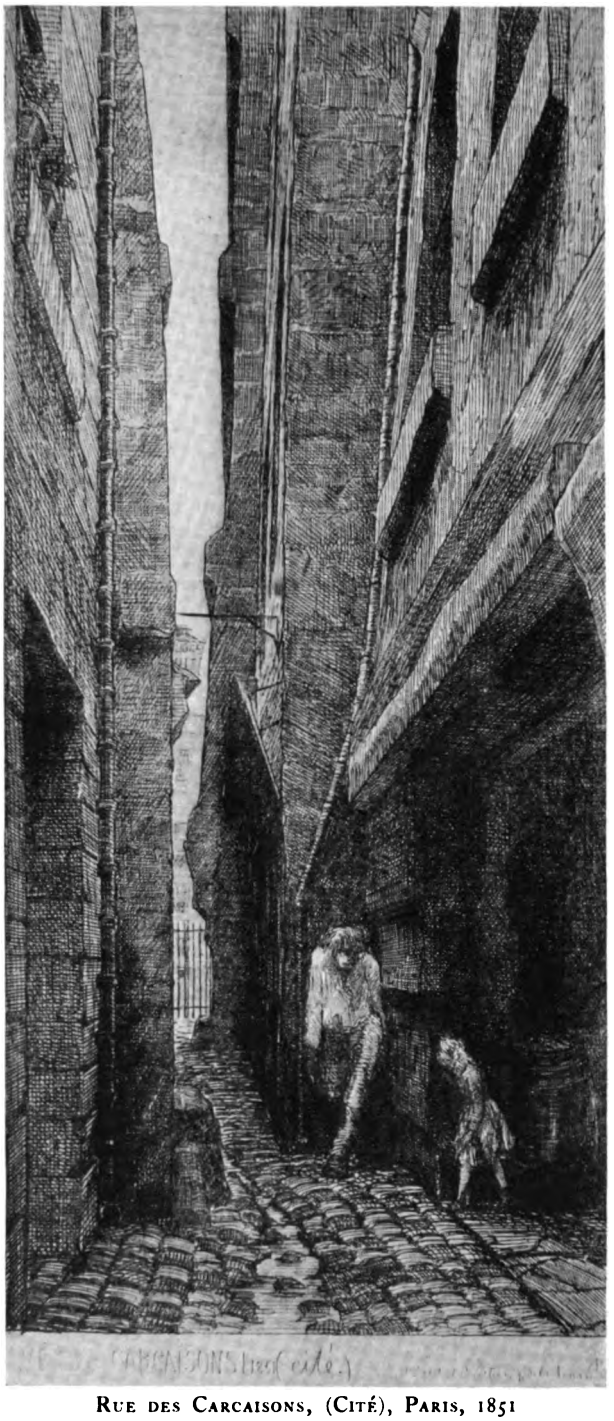
Rue du Pourtoir St. Gervais (les Charriéres de St. Gervais), Paris
After the etching by Martial

"le vieux Paris" which has taken place on so large a scale since the Revolution. They even go far toward explaining why Haussmann was able to carry through his work with the sacrifice of comparatively few noteworthy buildings, taking into account the great scope of the transformations and the inflexible, reckless method of penetration which he employed almost throughout. Moreover, it may be maintained that Haussmann, on the whole, only sacrificed what the execution of the plans absolutely demanded, while during the preceding period much havoc was wrought without a similar excuse, by sheer indifference to the relics of the past or, worse, by the savage desire to remove the stones which seemed to symbolize hated institutions.

The Great Transformation

However, through Haussmann's transformations, the aspect of the city underwent extensively a sudden radical change. While the work was in progress, the impression of devastation must have been an overwhelming one. Whole quarters were suddenly leveled with the ground, and the city was traversed in all directions by hideous gaps, indicating the course of new streets and avenues. The saying, attributed to an English visitor to Paris at the time, humorously characterizes the impression of the gigantic revolution taking place: "Singularly, the *Illustrated London News* has had nothing to tell us about this earthquake!" Certainly, more than a clear realization of the actual damage done, it was this cataclysmic character of the transformations that stirred many of Haussmann's contemporaries, especially as "the cataclysm" involved great inconveniences, enormous expenditures, and serious economic consequences. While the economic and financial aspect of the matter supplied Haussmann's political antagonists with their main arguments in attacking the transformations, they did not fail to make the sentimental reflections suited to the case and certain of a popular approval almost equally great. Largely, this criticism was all but well founded, born of hypersentimentality apt to hold everything sacrosanct that was sufficiently old to possess a certain flavor of antiquity. Haussmann had an easy task in justifying the destruction of congested, filthy quarters, sometimes picturesque to the eye but in reality often containing little or nothing of distinctive artistic value, and extremely objectionable in their sanitary and moral aspects.

On the other hand, it cannot be forgotten that the transformations, conceived in an uncompromising spirit as they were, also brought with them all but desirable esthetic consequences. The way in which certain monumental buildings, still preserved, were affected with regard to their situation, their relation to their surroundings, seems perhaps most deplorable. This applies especially to the disengagement of the cathedral of Notre Dame, begun under Napoleon I and radically carried through according to the imperial decree of 1865. The whole operation affecting the Île de la Cité has approximately been characterized, as to its effects, as *la mort de la cité*. The thoroughgoing replanning of the island, which for sanitary reasons had been demanded ever since the middle of the eighteenth century, was carried out on a very awkward plan, less sweeping than the adventurous scheme proposed by the architect Patte of the last mentioned date, but distinguished by



RUE DES CARCAISONS, (CITÉ), PARIS, 1851
After the etching by Martial

an equally cold and rigid rectilinearity, while entirely lacking its artistic grandeur. Patte's project, *un beau rêve*, which proposed to join the Île de la Cité and the Île St. Louis, and to sweep away almost everything except Notre Dame, was conceived with streets too uniformly narrow for the needs of the present day; Haussmann, on the other hand, created the desert which is called Place du Parvis Notre Dame, in front of the cathedral, placing it

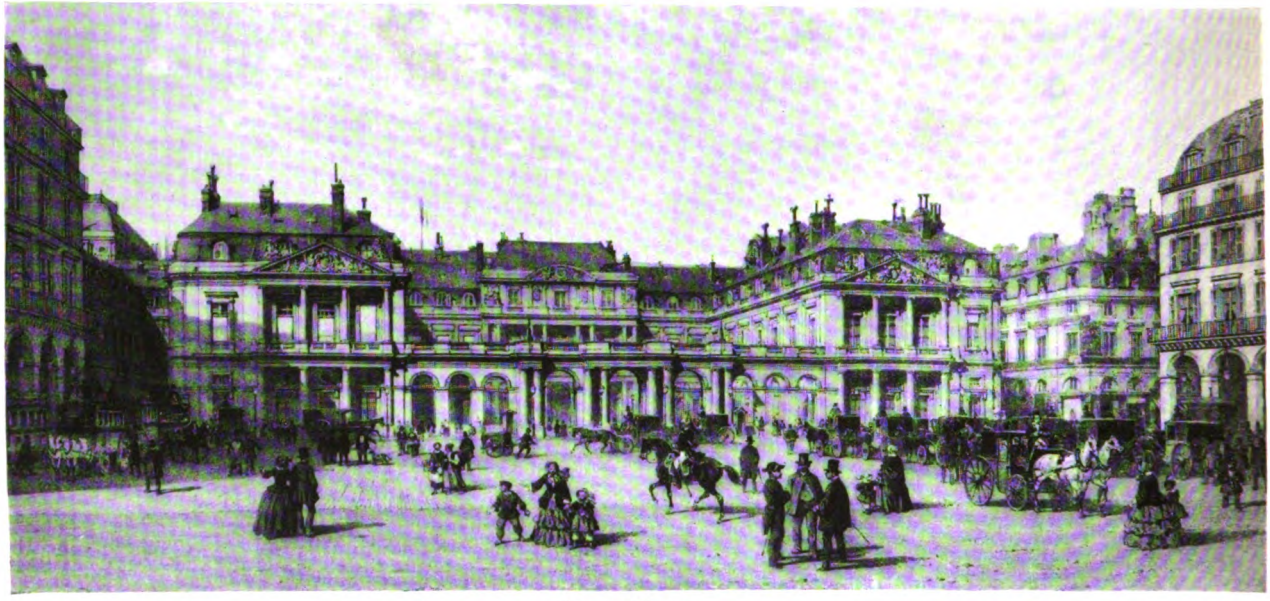
in the position of a show-building at a world fair and, one may say, severely violating its architectural character. Says a well-known writer on Paris under Napoleon I, regarding this transformation: "The dominating idea was to facilitate the evolutions of the imperial cortège; but esthetic reasons were given as a foremost motive. The buildings which concealed the cathedral and made it impossible to appreciate its imposing aspect must be removed, it was said. This was a first step toward that complete isolation which the archeologists of the present day are inclined to condemn as contrary to the historical truth."*

Though, perhaps, chiefly actuated by practical motives, this was a performance which the propagators of neo-classic city-planning doctrines, Langier for instance, would have applauded as "artistic." We think otherwise and want to keep "classical" city-planning conceptions at a respectful distance from old Gothic cathedrals. Haussmann's transformations have, through the disengagement of Notre Dame and through other kindred performances, contributed to inculcate the importance of more flexibility, of a more discriminate adaptation when attacking the delicate organism of an old city. While some of the violent inroads on the city structure led to the creation of streets and open spaces, the practical utility of which equals their esthetic merit—the Avenue and Place de l'Opéra for instance—Haussmann undoubtedly, in many cases, could have achieved both better practical and better artistic results by being more mindful of the actual physical constitution of the object to be improved. The lines of a new conformation were superimposed on the lines of an old one, skillfully, but with too much love of symmetry for symmetry's sake, often too much calculation being spent on the attainment of, in reality, sometimes trifling effects. From an esthetic viewpoint this is on the debit side of the work, while on the credit side there are achievements proclaiming that even during the sixth and seventh decades of the last century, city planning was not dead as an art in France, whereas everywhere else it was either merely imitative, with French performances as a model, or had entirely expired and sunk to the level of an inane engineering routine.

*L. de Lanzac de Laborie: Paris sous Napoléon: Administration; grands travaux, p. 131.

Past and Future

This is to be remembered. But the present generation also remembers the failures and shortcomings attending the great transformations. They have sounded their warning now for several decades and not entirely in vain, it is to be hoped. One may see a specially encouraging sign in the fact that the Commission on the Extension of Paris has recommended the method of widening old streets, instead of opening up new ones, to be extensively applied in carrying through the new operations. The process of amelioration, in many instances, will be a very gradual one, extending over a great number of years, and being largely based on an application of the so-called *servitude d'alignement* (building-line), combined with expropriation when deemed necessary to attain a speedier result. Moreover, the committee on the extension of the city has, for economical reasons, proposed to widen streets by establishing a building-line only on one side, and not, as mostly hitherto, on both sides, a method which, if judiciously applied, may serve both protective and preservative purposes. Besides, the interests of *le vieux Paris* are at present taken better care of than at any previous time, especially through the activities of the archeological societies of the various *arrondissements*, of the influential *Société des amis des monuments Parisiens*, and foremost, of the official Commission du vieux Paris, instituted in 1897 at the request of the Municipal Council. Much harm may be prevented through the persistent vigilance of these institutions



PALAIS ROYAL
Drawn and lithographed by Ph. Benoist

The Draughtsman's Page

GEORGE BAIN CUMMINGS, Associate Editor

HOW TO WIN A COMPETITION

THERE was held recently in New York a limited architectural competition. The proposed building was to be of considerable size and importance; the remuneration and prestige offered to the successful competitor were quite well worth his best effort. Coming during such an unsettled period as the present, with so little new work finding its way into the offices of architects, such a commission as awaited the winner of this competition would be most welcome. There was every reason, therefore, why the competition was worth winning and, consequently, worth trying hard for.

The winning solution was a distinguished design. The most careful study was evident in the elevation, the most thoughtful consideration in the plan. It was apparent that every aspect of the problem had received scrupulous attention, and every feature of the solution evidenced deliberately weighed judgment.

The solution which seemed generally to be rated second fell measurably below the standard of the winner. A confident handling of the problem, which only the most thoughtful study and critical analysis could impart, was lacking. There was not the sure mastery of the problem that the winning solution revealed.

Shortly after the judgment and exhibition of this competition, I learned, from draughtsmen employed in the offices of the architects producing respectively the two solutions discussed above, the manner in which the solution had been arrived at in each case. The comparison is of more than passing interest.

In the office in which the winning design was produced, the program was placed before the whole organization. It was studied and discussed by all, from the principals to the most junior draughtsman. From this action—that of a Committee of the Whole—the scheme was arrived at. The various members of the force took up this scheme and worked out its details. Nothing was accepted or decided until it had been presented to the rest and subjected to their analysis, criticism, and suggestion. This was a collaborative effort in which everyone in the organization bore as large a share as he was able to assume. The result was a collaborative solution, which might be expected to survive critical analysis, inasmuch as it had been produced by such an analysis on the part, not of one, but of several, trained persons.

In the other office, a different and more usual procedure had been followed. The principal and two or three others studied the program and determined the scheme. They made the initial sketches and determined the essential elements of the design and then turned the scheme into the draughting-room to be drawn up and presented. Those who worked on it had no control over the design, no opportunity to criticize or discuss it with the few who had determined it. Some of them felt that fundamental mistakes were being made in this solution of the problem, but there was no appeal. This condition chilled the enthusiasm of the organization and made the members silent, if not openly hostile, toward the solution.

The first office produced a winning solution, the other a losing solution. I am not attempting to prove cause and effect in this instance, although I believe that would be easy. I am simply presenting facts. Furthermore, let me say that I do not insist that in such a procedure as that described do we find an infallible recipe for winning a competition. As a matter of fact, you and I are not particularly interested in the familiar type of competition. What I would have you read from the title of these notes is, that there is a big Idea, in the working out of which an architect may achieve Success. The essence of that Idea is a new conception of the relation of an architect to his draughtsmen.

Your draughtsmen are of two general kinds—live and dead. The dead ones are simply draughtsmen—never to be more or otherwise. They are worth very little to you. They work for you by the hour at an established gait. They have no enthusiasm for the work, for your success' for their own futures. They may be round pegs in square holes, or they may be handicapped by lack of education and contact with fine things. In either or any event such a man is a poor investment for you, and is making a poor investment of himself. Study his case, urge him to get into a line of work for which he will have some enthusiasm, help him make the right connection; or strike some spark to quicken his dying soul and arouse ambition and enthusiasm in him toward the work in hand. Briefly, fire him, or *fire* him, but don't exploit him. Don't shake your head over him and say, "Poor fellow, he'll never be anything but a draughtsman," and then continue to pay him starvation wages and reflect comfortably that if his work is not brilliant it is at least steady, and surely is cheap enough.

Of course, the majority of your draughtsmen are the other kind—live ones. They are really not draughtsmen at all, but architects in the making. The difference between them and you is simply one of degree in proficiency and experience. (And sometimes the balance tips to their side!) Every once in a while one of your best men drops into your office to say that he has landed that big job or entered into a favorable partnership arrangement. And so he is added to the list of practising architects. And you select another man to move up into the position he has vacated, and that means you have to hire another junior draughtsman or a young college graduate, or promote the office boy and hire another youngster. And so they pass up through your organization. You take them in at the bottom raw and green, but eager and teachable; you graduate them finally, and compile a list of the firms you have fathered and trained. And one day your last call comes, or you retire from active work to grow old leisurely, and your head men step into your shoes and carry on the practice. Don't you see that with these live draughtsmen,

as it was with you, it is a progression, and that from the time the young man decides that if he is to find his immortal soul he must be an architect, he must be rated and reckoned with as an architect in the making? Are any of us in danger of ceasing to be "in the making"? May an architect cease to learn and develop, with impunity?

And so these live draughtsmen of yours, these potential architects, are your professional brothers just as much as are your fellow Institute members. Your welfare and theirs are coincident. They are your brain and muscle, your strength and genius, if you will but let them be, if you will but acknowledge them. How senseless not to make the most of your investment in them; how foolish not to utilize their talent, their youthful imagination, their spiritual fire! The architect who won the competition was wise, for he did so utilize those priceless qualities.

The unrest sweeping and rocking the world is gripping these draughtsmen. We hear of unions of them formed or contemplated. They would not be in such movements if the architects generally had pursued an enlightened policy toward their employees. Even now they look to other fields of work, preferring another career to the alternatives of standardized labor or allegiance to a tottering—is that too strong a word?—at least a floundering, profession.

Whether you have a competition on the boards or only a job, or six of them, sort your draughtsmen into the dead and live classes, get rid of your dead ones or transform them into live ones, and then sit down at the same table with them all, and talk and think and create together. Collaborate—not because it may be the way to win a competition, but because it is the only way in which the true architectural tradition can be carried forward—and things that do not go forward go backward. Nothing stands still.

The Housing Problem in Paris

By NILS HAMMARSTRAND

QUITE apart from the unparalleled reconstruction problems in the devastated regions, France is now confronted, especially in the large cities, with housing conditions so extensively bad as to cause the greatest alarm among men acquainted with the facts and able to survey and to judge the situation. It may safely be said that however serious the housing conditions may be in practically the whole European world, as well as in the United States, they are incomparably aggravated in France, not only owing to the German invasion and its consequences, but also because they were, before the war, perhaps worse than in any other European country, at least in regard to the large cities.

In estimating the situation, we have to reckon with the pre-war conditions just as much as with the fact that about 600,000 dwellings have been destroyed in the war, and that building activity during this period was reduced to an almost imperceptible minimum. As regards Paris especially, its very extensive and very unsatisfactory housing conditions were much discussed in the years preceding the war, claiming the attention of the authorities of the city as well as of the state; little or nothing toward effective improvement had been achieved, however, when the thunderbolt of war suddenly struck the country. Since then the situation has constantly become worse.

"The housing crisis has been aggravated during the war. Scarcely any houses have been built. Those which were in course of construction in 1914 have not been completed. The afflux of refugees has made the deficit felt still more." Thus M. Henri Sellier, *conseiller général de la Seine*, sums up the situation in the Department of the Seine, in a paper soon to be published.*

Regarding the effects of these conditions, M. Sellier then makes the following statements: "In the Department of the Seine as a whole, half of the population is badly housed. And, contrary to the opinion generally entertained, it is in the suburban areas that the effects of this deplorable situation make themselves most strongly felt. The demographic plans published in our report on the constitution and organization of the *office départemental des habitations à bon marché de la Seine*, are eloquent on this point. They represent, according to the results of the official census of 1911, the situation in the twenty arrondissements of Paris and in the seventy-eight extra-mural communities, as regards the density of the population, the mortality in general, the mortality in consequence of tuberculosis and the housing. At the very first glance one notices, unfortunately, the almost complete coincidence between the plan representing bad housing and the plan illustrating the mortality on account of tuberculosis. One also observes, in consulting the first-mentioned plan, that Paris has four arrondissements where more than 500 out of each 1,000 inhabitants are badly housed, while, according to the other plan, only one of its twenty arrondissements has a tubercular mortality exceeding 500 per 100,000 inhabitants. All the other agglomerations presenting such high mortality figures are to be found in the suburban areas."

It is to be observed that before the war, Paris, among the great capitals of the world, had the greatest mortality through tuberculosis. "And unfortunately," M. Sellier says, "it is no longer doubtful that the proportion of tubercular mortality and morbidity has increased during the last five years." Consequently the improvement of the housing conditions of Paris constitutes an unusually grave and urgent problem.

The question arises as to what initiatives and measures have been taken to remedy these evils. During the war it was scarcely possible to take action on any large scale with a view to supplying more hygienic housing. It was mainly left to the *office public d'hygiène sociale du département de la Seine*, instituted in 1916, to combat tuberculosis through various measures aiming at a better and more ex-

*By the much-appreciated courtesy of M. Auguste Bruggeman, prominently connected with the *office public d'habitations à bon marché du Département de la Seine*, a copy of this paper, on which the present article is based, has been accessible to the writer before publication.

tensive treatment of tubercular cases. The activity of the office of which M. Sellier gives an account, is being constantly widened.

Important as this activity undoubtedly is, it is, however, only a palliative agent. Betterment of the bad housing conditions, which are at the root of the evil, constantly aggravating it, will be the only effective remedy. As M. Sellier indicates, they are even worse in the suburbs than in the city proper, which circumstance serves to confirm the fact that the rational development of the suburban areas has been neglected in the very highest degree. The powers of the city, in the matter of planning, have not reached any farther than to its jurisdictional limits, the authorities of the Department of the Seine have failed to take the necessary initiative, and the suburban communities have either not been able or not willing to handle their own development in a satisfactory way.

The New Town Planning Act

An important initial step toward putting an end to this state of mismanagement has been taken of late. According to the law of March 14, 1919, extension and improvement planning is obligatory for cities of 10,000 or more inhabitants, as well as for smaller cities under certain conditions, and as regards the communities of the Department of the Seine, all of them, without exception, are subject to this obligation. It is in virtue of this law that the Greater Paris competition has been set afoot.

However, earlier initiative by the Department of the Seine and by the Municipal Council of Paris are also to be recorded, such as the constitution of the *office public des habitations à bon marché du Département de la Seine*, by the former, and of the *office public des habitations à bon marché de la Ville de Paris*, by the latter. These two institutions, established and organized in recent years on the basis of the law of December 23, 1912, respecting *offices publics d'habitations à bon marché*, have lately begun to combine their efforts. The departmental office seems to have been the more active so far, and it has published an extensive, well-composed, and instructive report regarding its constitution and its activities up to the beginning of 1919.

At an expense of ten million francs, the office has acquired land in the ultra-suburban areas aggregating nearly 500 acres. This land, at Plessis-Robinson, Châtenay-Malabray, Suresnes-Rueil, Champigny, and Stains, is to be developed into garden cities in accordance with plans prepared by the office. The building operations will be undertaken either by associations for erecting low-cost houses or by communal offices, which will have to conform to the conditions imposed by the plans and erect houses answering the requirements of the law. Preferably, detached family houses are to be built; the erection of compound, but small-sized dwellings is to be limited as much as is compatible with economic necessities and social needs. Each of these garden cities is intended to form an urban unit, having its own administration buildings, schoolhouses, coöperative restaurants, library, public baths, theatre, post-office, playgrounds, etc. Purchasers of land in the new garden cities will, of course, be accorded most favorable economic conditions; the element of speculation is entirely excluded, and the land is now encumbered with a value less than half of what it would have been if in the hands of the private speculator.

Besides, the departmental office for low-cost houses has already entered on the enterprise of constructing, at Suresnes-Rueil and at Stains, satisfactory dwellings for numerous families. Moreover, independent of its proper activities, the office has very recently been entrusted with the task of building 600 detached houses in the environs of Paris and of acquiring all houses partially built befote the war, in order to finish their construction.

The importance of these efforts, even though representing only a modest beginning, should not be underestimated. Progress toward the much-needed practical achievements is evidently being made, and if it seems less rapid than would be desirable, the unusual difficulties caused by the present abnormal situation in France should be taken into consideration. At all events, these recent initiatives may signify the beginning of a new era in the development of the city when comprehensive action and concerted effort, extending far beyond the present city boundaries, will definitively supersede the chaotic methods prevailing heretofore. In M. Sellier's paper the necessity of taking a broad, comprehensive view of these matters is being duly emphasized, and he accentuates the fact that the new endeavors to improve the housing conditions are not to be regarded merely as sporadic attempts, but that they have been made without losing sight of the general administrative, economic, and social problems, the solution of which will make out of the Department of the Seine a complete and harmonious urban whole—the greater and yet better Paris of the future.

The Extension Competition

It is therefore with the greatest interest that one looks forward to the forthcoming results of the Greater Paris competition, even if these results are almost certain to be unfavorably influenced by various adverse circumstances.* The competition should, at all events, not fail to serve as a stimulus, being, as it is, the first great manifestation of a new city-planning policy, inspired by unified aims, to be achieved only through the widest and closest coöperation. But it is after the competition that the first great test of this policy will come. Will conditions and circumstances arise which will thwart the efforts of those men who at present, animated by the best purposes, devote themselves with untiring energy to bringing the matter safely through its most difficult, incipient stages? This question is not being asked without some apprehension.

*The competitors have had an altogether too short time, only six months, in which to prepare their projects. Further, the best city-planning ability of France is at present intensely occupied by the problems of the devastated regions, a circumstance which, quite especially, should have favored a longer competition period. Finally, the difficulties of the competitors are enhanced through the lack of sufficient statistics regarding the population in the suburban areas, according to information obtained by the writer during a conversation with M. Edouard Fuster, *professeur du Collège de France* and *President de l'office départemental du placement et de la statistique du Travail*.

Law Relating to the Arrangement, Beautification and Extension of French Cities

ENACTED IN PARIS, MARCH 14, 1919

In plain and simple language, France has ordained that every city of 10,000 inhabitants, every village of 5,000 inhabitants which in any five years is increased by 500 souls, every health or vacation resort, every grouping of buildings of a historic or picturesque character, is required to have within three years, a "scheme of arrangement, beautification, and extension." Any city or town of whatever size, partially or entirely destroyed by war, fire, or earthquake is to prepare, within three months, an outline of such a scheme.

The scheme is divided into three parts: First, the plan showing the highway system, parks, and playgrounds and land to be held in reserve. Second, the program dealing with archeologic and esthetic values, building heights, water and sewage systems. Third, "The regulations of the method of application of the measures provided for by the plan and the program."

Commissions in each prefecture and one national committee will oversee the execution of the plans. It is especially to be noted that each town plan must be accompanied by a statement of the financial considerations involved. This important detail has been too often omitted in town-planning projects in the United States. No nation has ever embarked upon such a far-reaching program. Not only cities and towns, but even villages which show any signs of growth, are compelled henceforth to conform to a predetermined road map.

There is something very heroic about all this. A country which has but lately emerged from a war in which over one-half of its young men were lost, during which it has seen the major portion of its industrial cities laid waste, and by which it has been saddled with a debt which cannot be even materially reduced for many years, could well be excused if it confined its efforts to satisfying only its most urgent needs. It would not have been reasonable to expect anything else and yet France, evidently realizing the waste in lives and treasure inseparable from uncontrolled urban development, has resolved, cost what it may, that henceforth all of her towns, great or small, shall be able to govern their lives and growth in accordance with a carefully considered "scheme of arrangement, beautification and extension." JOHN IRWIN BRIGHT,

Chairman of Committee on Community Planning of the American Institute of Architects

British Housing Notes

The British press, for December, both general and architectural, deals at great length with the housing problem which has now assumed such magnitude as to force it constantly into front-page display and editorial comment. But the conspicuous display does not help one very much if one is bent upon discovering what is likely to be done to relieve the situation, for, apparently, no one seems to know—and least of all the Government. A clear statement of the situation is therefore difficult, if not impossible, since a study of this confusing mass of evidence at hand leads up to the query—who's looney now?

But out of this mass of news and editorial comment at least two facts emerge in plain view: the seriousness, the extreme seriousness, of the situation is now universally recognized, and all hands, including the Government, are bent upon finding a solution. Beyond this point chaos reigns.

Of course, there is debate about "concrete houses with a variety of frontages—with a common interior—built in a week by unskilled labor;" "wooden houses to be erected at less cost;" "ready-cut houses;" "houses without this, that, and the other thing," and so on *ad infinitum*. All of these debates about the physical side of the problem fall into the background behind that which has to do with finance and the problem of securing a sufficient quantity of labor and materials. And of these latter problems, the subject of how to finance the operation of building rather more than 500,000 houses at £800 to £900 each remains the central point of discussion, the axis around which all other considerations are made to revolve.

The situation, as very recently developed, may be briefly presented by quoting from *The Architects' Journal* of December 17:

"The Housing (Additional Powers) Bill, has been read a third time in the House of Commons. Briefly the provisions of the Bill are:

"(1) To make grants to persons or bodies constructing houses for the working classes, the aggregate amount of such grants not to exceed £15,000,000.

"(2) To meet expenses incurred in converting houses into flats.

"(3) To prohibit building operations which interfere with the provision of dwelling houses.

"(4) To prohibit, under a penalty, the demolition of any house reasonably fit, or capable of being made fit for habitation.

"(5) To empower local authorities to raise money by the issue of local bonds.

"(6) To enable local authorities to acquire land for garden cities or town-planning schemes.

"Dr. C. Addison, the Minister of Health, during the course of the debate on the second reading, said that the

reason of the delay in building was the difficulty of getting an economic return in rent, and this difficulty still existed in a greater degree. To meet the emergency they must look to local authorities, with the State behind them, and to provisions for local authorities to call private enterprise to their assistance. The schemes on which three-fourths of the local authorities were engaged had abundantly justified the method adopted. The delay up to the stage of acquisition of land and preparation of plans had been disastrous. The main causes of delay were the high cost of materials and the existence of other attractive forms of work for builders. He had arrived at an agreement with the building trade for the erection of a minimum number of houses under the national scheme. If it paid men to build houses now they would be building them, but there was no market for them at the present cost of erection. Under these proposals, they had decided that the subsidy be from £160 to £100, according to accommodation. Constructional standard should comply with local by-laws, and the houses would have to be well constructed and properly finished. They could not make the scheme retrospective to apply to houses already begun. The subsidy would be given to anybody who could build houses of the kind required in a satisfactory way. The houses must be begun within twelve months, but as a certain number of houses at the end of that time might not be completed, it was proposed to give three months' grace in respect to them, deducting the amount of the subsidy by one-twelfth for each month beyond the twelve months. Dr. Addison believed that, with the subsidy, it would be possible for a large number of private builders to build houses which they would be able to dispose of as a commercial proposition. A large number of offers had come in. Provision was also made for additional assistance to public utility societies. The proposal of the Committee that they should make it easy for local authorities, by the issue of housing bonds, to finance their own housing schemes was sound. Since the debate the other day the building trade had been coöperating most heartily with the Ministry in furthering the schemes of local authorities. He felt certain that if the House passed this Bill it would materially relieve the housing position."

Naturally there is debate regarding the operation of this program, for no one can apparently foresee what would happen to rents in houses built in pre-war days; and with respect to the subsidy, the question most generally debated is—Who gets it? The drift of things concerning this point may be expressed by quoting Mr. Westcott in the *Westminster Gazette*. He says:

"This is a matter left in obscurity. Presumably the intention is to lower the selling price of the house, in order that the purchaser may reap the benefit, but in practice there would probably be a contest between all parties concerned.

"At Manchester, Dr. Addison, advocating the principle of 'reasonable' (i. e., economic) rentals for new houses, stated that workmen's wages should be raised in order to enable them to pay such increased rents. Clearly, however, the effect of this would be vastly worse than the operation of any subsidized rents. The difference between the old and new economic rents would probably be over £1 a week; and, assuming that Dr. Addison's suggestion could be put into practice, it is clear that it would be impossible to confine the increased wages to actual householders. In other words, any such increase would be general. As there are, roughly, about 16,000,000 workers (male and female), the aggregate additional burden on industry thereby entailed would be enormous. But all students of social problems know that any such proposals for increased wages would be fought tooth and nail, resulting in strife, agitation, and class feeling. The suggestion, however, is obviously totally impracticable.

"Dr. Addison's 'first-born' Housing Bill has had a most inauspicious career, and the new Bill bids fair to be little more fortunate. Unless it is radically altered and improved in committee, it clearly cannot touch the root of the housing shortage."

While the Government is trying to think the problem through into terms of action, and while the general press continues to cry in large headlines, "Go on with the House," the "Architect" debates the question with Sir Charles Ruthen in the good old vein of the classical economists:

"With much of what Sir Charles Ruthen said in his address to The Society of Architects, on the subject of British House Building Methods, we are in absolute agreement; but we disagree *in toto* with him on certain fundamental issues.

"To begin with, it is comparatively easy to pile statistics upon statistics and to prove, as many speakers do, that there is an immense housing shortage to be made good; every speaker on the subject agrees as to this, while differing in the little sums they make up of our present and future wants. But Sir Charles Ruthen, like many another speaker, is silent as to the reasons which underlie the present shortage, which are, we hold, more important than the amount of the shortage itself if we are to arrive at a permanent settlement of the question once for all. The initial reason for the shortage is that the Finance Act of 1909–10 for the first time in the history of the country interfered with the natural operation of laws of supply and demand by penalizing those who had hitherto made a reasonable profit, and in process of doing so, had provided what was wanted.

"It is useless to argue that a payment of one-fifth of the difference between the improved price of developed and that of undeveloped land is a mere bagatelle; the fact remains that once the principle is accepted, there is no reason why one-quarter, one-third, or even one-half might not in time be demanded. The Government had, in fact, sold the keys of the citadel of security, the security of house property as an investment vanished, mortgages on it were called in, and house property as an investment was 'bear'd.' The result—as to which ample warnings had been given—was apparent in a falling off of one-half, and then a greater and greater proportion, till the national shortage became evident to all, even in the pre-war days. Nor was it fair and just to argue that the houses that had been erected were deficient in planning, design, or accommodation, for the by-laws permitted them, local authorities sanctioned them, and public opinion accepted them. Builders were no more to be blamed for the result than we could blame Columbus because he did not cross the Atlantic in a turbine steamer. It is useless also to point

out that many people in the old days were badly housed. If it were so—and all will admit it was largely because men would not, or could not, pay the market value for more and better accommodation—they can do so now with the greatly increased wages, and the community has no more reason to supply the population with houses at uneconomic rents than to present it with free food or clothing. The State which does so is doomed to bankruptcy, and, if so, the largest and most generous housing policy will be of no avail.

"We say openly and unreservedly that if, in consequence of a continuous reduction of output, the working classes make it impossible to house the people, no fear of threats of revolution should prevent the State from refusing to help those who will not help themselves. The policy we advocate can be expressed in a nutshell: The repeal of the Finance Act; a more equitable system of rating, relieving the enterprising man who develops property and so creates value for the community as well as for himself; and the end of spoon-feeding and subsidies. If the latter can, under the exceptional circumstances, be sanctioned, they should be fair and equal subsidies paid to all, without distinction, who provide what is required, and should be limited to an amount which represents the sum which has to be paid for housing now, as compared with that which will be current when building prices have been reduced after a certain number of years. The State must not compete with its subjects in matters of housing any more than it must supply any section of its subjects, who are not incapable or helpless, with free food and free clothes. This is our answer to the problem which Sir Charles Ruthen states and as to which he draws what we hold to be entirely unfounded conclusions."

Of course, the American reader, if he leans toward this way of thinking, will find solid comfort in the words of the "Architect." But if he is, on the other hand, inquisitive he will ask himself as he would the "Architect" why it is that in the urban centers of America, for example, the same identical situation has arisen as in the case of the urban centers of Europe where in turn "stimulation," "state aid" and finally "outright subsidy" has been resorted to. He would be inclined to ask the "Architect" if there was no fairly good ground for suspicion that the whole system of production, as it has been carried on in the recent past, was not, by degrees, reaching the point of breakdown.

This effort toward bringing about a more adequate environment for the common men in England, when viewed from across the Atlantic, presents some rather interesting aspects. Out of the drift of affairs and things, something resembling a plan is to be seen emerging, but it is a plan of curious design. We have, in this last phase of the effort, that is to say, in the granting of an outright subsidy, a clear indication of a drift into what is sometimes spoken of as the Communistic State, but thus far the drift is confined to those activities which have to do with the *consumption* of certain limited lists of products. While the State is apparently drifting in this direction as regards consumption, the animating forces of production remains individualistic, that is to say, production, as the quoted statement from the "Architect" shows, in order to operate must be animated by the prospect of investment for profit; production must also be carried on according to the well established rule of business enterprise—price competition, etc.

Now the houses are not being built because there is not sufficient prospective profit to be seen in the investment—not at this stage of the game. Hence nothing is being done, notwithstanding the recognized universal need. It is plain enough, if we state the situation in terms of action, that we are dealing with a form of sabotage. Not that anyone willfully intends to curtail production so that rents will eventually rise. It is merely that the present system of production will not operate unless there is good prospect of profit to be derived from investment. This is how the system is kept going.

It is also plain enough that things are working at cross purposes. Just how the Government can function effectively as an organization of consumers while production is carried on by an individualistic system which operates only in those fields where and when there is the prospect of the greatest gain from investment—all this is not plain. It would appear that both groups, the Government and those holding to the classical economists' views as expressed in the "Architect" would have to guess again, both as to what constitutes the cause and how the problem is to be solved.

"But departing from the housing problem, a ray of hope is to be noted in the report of the Committee on Adult Education, appointed by the Ministry of Reconstruction. Take for example the following suggestions from the report of the Committee:

"*Universities.*—A department of extra-mural adult education, with an academic head, should be established at each university. For such education more liberal assistance should be given to universities by the State and local authorities.

"Universities should consider carefully the question of providing residential tutors in those districts in which they carry on a substantial amount of extra-mural work, with a view ultimately to promoting the establishment of local colleges. A larger and more adequately paid staff of tutors and lecturers should be employed. Full-time tutorial class teachers of experience should be paid a fixed salary of not less than £500 a year.

"*Local Authorities.*—Each local authority in Great Britain should be required to submit to the appropriate Central Department a separate scheme for the provision of non-vocational adult education.

"Non-vocational institutes as evening centers for humane studies should be generally established in co-operation with voluntary agencies.

"In these institutes social and recreational activities should be a prominent feature, and music, drama, dance, and handicrafts should be an integral part of the program. University extension courses should be given in the institutes, which are intended for young men and women between the ages of 18 and about 21.

"*Village Institutes.*—As to rural education, the Committee say that the greatest need in the village is a village institute under full public control. The institute should be the headquarters of organized local activities of all kinds.

"It is recommended that the State should make a grant-in-aid to parish or rural district councils, through the county councils, in respect to capital expenditure amount-

ing to 90 per cent of the total cost. This State grant for Great Britain might amount to £5,000,000 or more.

"Summer schools and summer meetings should be extended and summer courses arranged for teachers and others in agricultural and kindred subjects should be widened in their scope.

" 'We do not think,' the Committee says in their general remarks, 'that it is possible or desirable to eliminate from adult education the discussion of controversial questions. Indeed one of the greatest values of adult education is that highly controversial subjects can be freely discussed in an atmosphere of mutual confidence and tolerance. Only in this way are students able to correct their own experience and adapt their points of view to the accepted experience of others.

" 'There ought, we think, to be far wider opportunities for the development of the study of natural science among adult students. Again, we think it desirable to emphasize the place which modern languages should occupy in the sphere of adult education. Moreover, we think it important that adult education should be interpreted in such a way as to include the encouragement of music and languages, of literature and drama, and of craftsmanship. In other words, adult education should cater for the varied needs and tastes of the people.'

"The Committee holds the view that the State should not refuse financial support to institutions, colleges, and classes merely on the ground that they have a particular 'atmosphere' or appeal to students of a particular type. 'All that it ought to ask is that they be concerned with serious study.'

"Sir John L. Green, secretary of the Rural League, has been appointed by Lord Lee, Special Commissioner, to organize measures for the improvement of social and material conditions of village life and the development of rural industries."—F. L. A.

Book Reviews

Church Buildings. By Elmo Cameron Lowe. Chicago: The Methodist Episcopal Church. 1919.

The first of a series of monographs, an attractive pamphlet entitled "Church Buildings," prepared by Elmo Cameron Lowe, of Chicago, bears the imprint of the Bureau of Architecture of the Methodist Episcopal Church. This serves to call attention to the fact that already the Methodists, the Lutherans, and the Episcopalians have awakened to a realization of the fact that church buildings cannot safely be left to chance.

Thus, the recent action of the Methodist Church, in establishing its Bureau of Architecture, is an indication that the idea is growing and that a marked improvement in ecclesiastical architecture may be imminent. At any rate, let us hope so, and be grateful for the fact that several denominations have already recognized the fact that committees of laymen are not competent to judge or to pass finally upon architectural designs.

In the dual function of a place of worship and a place of instruction and recreation, the average modern church problem today presents new requirements for solution. It is true that these may be solved in a practical and economical manner by almost any good architect, but in no class of work is the criticism of the architect and the finished designer more needed.

There are well-meaning advisers who are totally devoid of both training and religious feeling, while there are others who might serve as advisers to the everlasting glory of any denomination. If the adviser be a well-trained architect, and above all a man of good taste and fine understanding, he will be able to help local architects in remote and scattered places very much.

We congratulate the Methodist church upon its newly organized Bureau of Architecture, and feel sure that this sort of coöperation is destined to be of the greatest possible advantage to every community in which religion and art flourish. Albert Kelsey.

News Notes

The Index to Volume VII of the Journal (1919) has been compiled and printed and will be mailed to any subscriber on request.

Many comments have been received from members of the Institute and others, in connection with the report of the Senate's Committee on Public Buildings and Grounds on the operations of the United States Housing Corporation and the work done by architects in connection with that body. The report is generally denounced in unmeasured terms as misleading and maliciously unfair, but pending further action on the part of Congress (which action, we are given to understand, is contemplated), we refrain, for the present, from any further discussion of the subject in these columns.

At its December meeting, the Oregon Chapter voted: "That the Building Laws Committee of the Chapter communicate with the mayor, suggesting that all codes controlling the growth and development of Portland be recodified, bearing in mind the objective of each and that this be done with the aid of city officials or some paid expert or qualified authority."

At the January meeting of the South Carolina Chapter, action was taken in approval of the Institute's stand on

the formation of a national department of public works and on the threatened absorption of the Construction Division of the War Department into some other Government department.

At the same meeting a report was made on a standard form of registration and reciprocity agreement with the Georgia and North Carolina Chapters, as follows:

"That with the exception of the reciprocity clause our present law is clearer and leaves less cause for disagreement as to technical points than the proposed standard law prepared by the Institute Committee, and that the present law having been obtained under difficulties and in operation only two years it is inadvisable to attempt any amendment at this session of the legislature." It was recommended, however, "that the Chapter recommend to the State Board that if in their opinion it was advisable to propose an amendment at this time, they submit such an amendment admitting to state practice architects licensed in another state or architects of eminent qualifications in practice in a state having no registration law, without technical examination, if the Board decided in each case that such examination be unnecessary."

A committee was appointed to confer with the Governor in regard to a proposed measure for establishing a state architectural commission and state architect.

THE Institute is in receipt of a communication from the Chairman of the Senate Committee on Military Affairs which reads as follows: "I am in receipt of your letter of January 10 urging legislation for the maintenance of the Construction Division as a separate service of the Army. I am very glad to inform you that the Committee on Military Affairs has inserted in the Army Reorganization Bill a provision for this purpose."

THE Convention of the National Public Works Department Association, a movement initiated by the technical men of the country to secure the establishment of a national department of public works, was held at the Willard Hotel, Washington, D. C., January 13 and 14.

The American Institute of Architects was represented by Messrs. Edward W. Donn, Jr., E. J. Russell, and Waddy B. Wood. Mr. Russell was appointed a member of the Committee on Resolutions; Mr. Donn a member of the Committee on Text of Bill, and Mr. Wood a member of the Committee on New Organizations.

More than 125 delegates, representing the building professions and manufacturers, were present.

The Convention was marked by harmonious proceedings and a determination to carry on until its object is accomplished. Reports from state chairmen and from delegates who conferred with members of Congress were entirely favorable concerning the trend of public and legislative sentiment.

THE state of Pennsylvania will hold a competiton for the design of the certificate granted by it to architects under the terms of the new registration law. There will be awarded a first and second prize of $200 and $100, respectively. The competition closes on April 1, 1920, and copies of the programme may be had from the State Board of Examiners of Architects, Harrisburg, Pa.

THE National Charity and Welfare Association of Montevideo, Uruguay, announces an international competition for plans of a sanitarium to be devoted exclusively to the cure of convalescents of both sexes over seven years of age.

The cost of the buildings is not to exceed approximately $300,000. Each design must be complete. The competition will be in two stages: first a general competition and, second, one between those whose plans are accepted in the first. Prizes will be awarded in both grades. The jury is composed of the Director of the Board of the Association and five architects. June 30, 1920, is the prescribed date for submissions. Further details may be had from the Uruguayan Legation, Washington, D. C.

ACTION has been taken by the Oregon Chapter in approval of the pending Tinkham Bill (H.R. 7014), designed to create a government bureau of living conditions.

AT its annual meeting in January the Washington State Chapter adopted a resolution further protesting against the use of Institute influence in the promotion of state societies in the state of Washington.

AT its last meeting, the San Francisco Chapter voted, as the sense of the meeting, that the Chapter does not approve the formation of a state society in California.

THE Annual Meeting of the Idaho Society of Architects was held at Boise on January 5 and was well attended. Mr. Burton E. Morse, of Twin Falls, Idaho, was reëlected president.

ONE of the most noteworthy examples of Spanish-Colonial architecture in America, the "House of the Tiles" (Casa de los Azulejos), the palatial and historic old mansion of Mexico City, is shortly to be converted into a modern American drugstore. Although a century and a half old it is said to be beautiful and in an excellent state of preservation. A belief that the Government will eventually take measures to secure its permanent preservation is encouraged by the fact that before alterations were begun photographs of the principal details were taken. It has been leased for twenty years.

THE official organ of the American Institute of Electrical Engineers, formerly called the "*Proceedings*," appears in January in a new form, under the name of the "*Journal of the American Institute of Electrical Engineers.*" An editorial announces that "the changes in name, size, and scope constitute one result of the deliberations of the Institute's Committee on Development, which formulated recommendations embodying improvements in the activities of the Institute, based upon the response of the membership to the Committee's request for suggestions."

IT is announced that the competition for the new building for the Temple of the Mystic Shrine at Los Angeles, will be in two stages, and conducted under the Institute Code. Mr. John C. Austin, of Los Angeles, has been chosen adviser and the program will be issued as soon as possible.

NEWS NOTES

In connection with the burning of the French Opera House at New Orleans, designed by James Gallier, and destroyed by fire on Dec. 4, 1919, the Louisiana Chapter has adopted a resolution as follows:

The Chapter recognizes the passing of the old French Opera House as a calamity in the annals of architecture of Old New Orleans and the country at large. The expression from the individual members of the Chapter is of a personal regret in the loss of this landmark of the Vieux Carré that served as a splendid setting for the perpetuation of the ideals of art and culture.

The Chapter recommends that the French Opera House be rebuilt on the old site and that the new building should reproduce the destroyed building, with modern construction. The Chapter also offers its services in an advisory capacity to those bodies interested in rebuilding the Opera House.

The long controversy over the new court house for New York seems settled at last. Mr. Guy Lowell, the winner of the competition, and author of the famous "circular plan," has redrawn the plans, which now call for a hexagonal building with approximately the same accommodations as the original design, but costing only one-third as much, or $7,000,000. The building is to go on part of the original site, and the Board of Estimate, on December 30, authorized the necessary appropriation for its construction which is to proceed as rapidly as possible.

The January meeting of the New York Chapter was very largely devoted to the subject of the New York war memorial and unionism among draftsmen.

C. Grant LaFarge set forth the strange and curious history of the Mayor's Committee on War Memorial. Of visible actions, his account was complete and remarkably illuminating, and considerable light was thrown upon the nature of that thick and murky fog of political obscurity which has surrounded this public enterprise from the beginning and which still surrounds it. Naturally, no one knows what is likely to happen. The names of the Mayor's Committee are not known, except that of Mr. Rodman Wanamaker, the Chairman, nor does one know the names of the Committee on Art, a subcommittee of the Mayor's Committee, nor does one know who is to judge the competition which is now being held. The matter is so obscure that no one may even venture a guess about it.

The admirable statement by Mr. LaFarge regarding this matter had the quality of the Chapter from "The Education of Henry Adams." For the meaning of the action of the Mayor's Committee is apparently as obscure as was the meaning of events to Henry Adams.

The discussion of unionism among draftsmen was a second chapter, so to speak, of what bids fair to be a long and interesting serial story. A fairly accurate, descriptive title for this second installment might be "We Don't Know Where We Are Going, But We're on Our Way." Naturally there were no "conclusions," for this is a serial. The plot thickened, however, and a few new actors appeared upon the scene. Consideration was given to the status of the draftsmen in the "plan factories," of which there are said to be a few in the outlying areas of greater New York. Also the "proletariat" was introduced to the audience as a noise behind the scenes. The center of gravity of the discussion was observed to shift a little; it moved over a bit toward the center of gravity of the problem. And one saw the problem not so much from the standpoint of the "closed shop," etc., as a problem which involved our entire professional organization.

The upshot of this interesting discussion was a resolution authorizing the appointment of a committee of fifteen, composed of five members each of the New York Society of Architects, the Brooklyn Chapter and the New York Chapter of the A. I. A., with power to enlarge its membership by the addition of double that number, or thirty draftsmen. This Committee was asked to consider not merely the question of unionism, but the "state of the profession" with a view of coming to some definite opinion as to what might most effectively clarify thinking before attempting to set down final conclusions in terms of action regarding unionism or any of the other serious problems which confront both architect and draftsman.—F. C. A.

The Reconstruction Commission and the Joint Legislative Committee of the state of New York announce a competition, the object of which is to answer the following questions, taking a typical block of tenements for study:

Since new walls are vastly more expensive than old, can the old shells be remade into light, airy, sanitary, decent homes? If so, what is the most economical way to attain this end, and can it be done in such a way as to encourage remodeling, not only for the resultant better living conditions but to demonstrate its economic value? What size unit, block, group of houses, or single tenement will give the most practical result, and what arrangement of buildings, courts, and yards will give the best environment for decent living? Should the remodeling be carried out by individual owners or groups of owners and with or without the assistance of the community, city, or state?

An actual block of tenements on the lower East Side of New York City has been chosen for study. This block contains tenements of the familiar dumb-bell type, as well as of the earlier railroad type having three-quarters of the rooms borrowing light and air from those on the street or court. More detailed information on the program of this competition will be published in the next number of the Journal. Mr. Clarence S. Stein is secretary of the Housing Committee of the Reconstruction Commission of New York which has this competition in charge.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:
BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

Lumber Standards

In the October, 1919, Journal there was a report on the conference of the lumber interests in Chicago, called to consider the adoption of universal standards for commercial lumber. It is gratifying to note that since that conference considerable progress has been made in the direction of establishing these much-needed standards.

The following are excerpts from a recent circular letter addressed by the National Lumber Manufacturers' Association to all of the associations represented at the conference:

"Pressure has been brought to bear on our industry from many sides recently in regard to the subject of standard classification, sizes, and grades for manufactured lumber. Our subscribing associations have been told of the activities of the consumer in attempting to prepare such standards for us. The need of action in the matter by the industry itself was made plain at the general conference on grading held in Chicago on June 30, 1919.

"At that time, the Engineering Bureau of the National Lumber Manufacturers' Association, through Mr. C. E. Paul and Mr. F. C. Harris, was instructed to prepare specifications and a general plan for grading that would satisfy the demands of the consumer without creating a general disturbance in the industry. The following report by the Engineering Bureau of the National Lumber Manufacturers' Association is submitted as a result of resolutions passed by the conference on standardization, as outlined in our letters, File 96.

"The subjects covered in this first report are: Standard Form of Specifications of Grades; Standard Terms of Classification and Definitions; Species Recognized under General Names for Wood; Standard Sizes for Lumber.

"In repreparing these reports, the Engineering Bureau of the National Lumber Manufacturers' Association has conferred with a representative of the American Institute of Architects, a committee of the American Railway Engineers' Association, officials of the U. S. Forest Products Laboratory at Madison, Wis., and has received help and coöperation from experienced graders connected with our subscribing associations. All have given valuable information and suggestions.

"In the preparation of the accompanying report we believe that much has been done to clarify the meaning of terms commonly used with a vague and general meaning, and often with different meanings in different sections of the country. These definitions will not all be in accordance with the usage to which any one association is accustomed, but are recommended as a result of our careful investigation and effort to produce a logical and workable plan of standardization."

As requested by the National Lumber Manufacturers' Association, we transmit herewith to the architectural profession, for its consideration and comment, those portions of the first report which are of direct interest to architects. The request is made that comments and suggestions be addressed to the Chairman of the Structural Service Committee, so that they may be classified and correlated and delivered to the National Lumber Manufacturers' Association.

It is requested that particular attention be given to the recommendation on bringing up the width of the tongue and groove in drop siding to the size of ⅜ inch to harmonize with the rabbet in shiplap. Should a ⅜-inch tongue be deemed advisable, the recommended widths of lumber would then be 2⅜ inches, 3⅜ inches, 4⅜ inches, and 5⅜ inches instead of the widths indicated in the table. The questions are: Is ⅜-inch lap sufficient for shiplap, and is it desirable to have a ⅜-inch tongue on drop siding?

Definitions and Classification Terms

In view of the fact that there have been no exact standards for terms in common use in the lumber industry, the following definitions and terms of classification are recommended. They are the result of an extensive study of the various grading rules and classifications of the different associations, and replies to letters of inquiry sent out from this office.

The definition for the term "lumber" is adopted from the rulings of the Interstate Commerce Commission. Many of the terms have been used generally in a sense which would make them overlapping, and others have duplicate meanings. This has been avoided as far as possible in the classification terms here recommended.

The terms of classification are divided into: General Classification Terms, Size Classification, and Manufacturing Classification.

Standard definitions of defects are being worked out by the U. S. Forest Products Laboratories at Madison, Wis., and are not ready to submit to you at this time.

General Classification

Lumber is the product of the saw and planing-mill, not further advanced in manufacture than by sawing, resawing, and passing lengthwise through a standard planing machine, crosscut to length, and end matched.

Lumber is classified as *Yard Lumber*, *Shop* or *Factory Lumber*, and *Structural Timber*. Different grading rules apply to each class of lumber.

Yard Lumber is lumber that is less than six inches in thickness and is intended for general building and construction purposes. The grading of yard lumber is based upon the use of the entire piece.

Shop or *Factory Lumber* is lumber intended to be cut up for use in further manufacture and is graded on the basis of the percentage of the area which will produce a limited number of cuttings of a given minimum size and quality.

Structural Timber is lumber that is six inches or over in thickness and width. The grading of structural timber is based upon the strength of the piece and the use of the entire piece.

Yard Lumber is classified roughly as *Finshing* and *Construction Lumber*.

There is no sharp line between finishing and construction lumber. The medium grades may be used for either purpose.

Finishing is yard lumber of the higher grades in which appearance, perfection of the surface, and finishing qualities are primarily the basis on which the grade is determined. The higher finishing grades are more suitable for "natural" or transparent finishes, while the lower finishing grades are smooth and free from serious defects and are particularly adapted to the use of paint.

Construction Lumber is yard lumber which is graded primarily upon the basis of its strength, as affected by defects, and its fitness for general construction purposes.

Size Classification

Strips are yard lumber less than two inches thick and under eight inches wide. Strips are usually manufactured into matched and patterned lumber.

Boards are yard lumber less than two inches thick and eight inches or over wide.

Planks are yard lumber two inches and under four inches thick and eight inches and over wide.

Scantlings are yard lumber two inches and under six inches thick and under eight inches wide.

Heavy Joists are yard lumber that is four inches and under six inches thick and eight inches or over wide.

Timbers are lumber six inches or larger in their least dimension.

Dimension includes all yard lumber except boards and strips; that is, yard lumber two inches and under six inches thick and of any width.

Manufacturing Classification

Manufactured lumber is classified as Rough, Surfaced, and Worked.

Rough Lumber is undressed lumber left as it comes from the saw.

Surfaced Lumber is lumber that is dressed by running through a planer. It may be surfaced on one side (S1S), two sides (S2S), one edge (S1E), two edges (S2E), or a combination of sides and edges (as S1S1E, S2S1E, or S1S2E).

Worked Lumber is lumber which has been run through a matching machine, sticker, or moulder. Worked lumber may be *matched*, *shiplapped*, or *patterned*. Patterned lumber is usually matched or shiplapped.

Matched Lumber is lumber that is edge dressed and shaped to make a close tongue and groove joint at the edges or ends when laid edge to edge or end to end.

Shiplapped Lumber is lumber that is edge dressed to make a close rabbeted or lap joint when laid edge to edge.

Patterned Lumber is worked lumber that is shaped to a patterned or moulded form.

Standard Names for Varieties of Structural Timber

The standard names for species recognized under general names for wood here proposed are those recommended for adoption by the Committee on Wooden Bridges and Trestles of the American Railway Engineers' Association, and are the same as the standards of the American Society for Testing Materials, except those for cedar, which are not given in the standards of the latter society.

Southern Yellow Pine. This term includes the species of yellow pine growing in the southern states from Virginia to Texas; that is, the pines hitherto known as longleaf pine (*Pinus palustris*), shortleaf pine (*Pinus echinata*), loblolly pine (*Pinus Tæda*), Cuban pine (*Pinus heterophylla*) and pond pine (*Pinus serotina*).

Douglas Fir. The term "Douglas fir" covers the timber known as yellow fir, red fir, western fir, Washington fir, Oregon or Puget Sound fir or pine, Northwest and West Coast fir.

Norway Pine. Covers what is known also as "red pine" and Banksian (*Pinus Banksiana*).

Hemlock. Covers southern or eastern Hemlock, that is, hemlock from all states east of and including Minnesota.

Western Hemlock. Covers hemlock from the Pacific Coast.

Spruce. Covers eastern spruce, that is, the spruce timber coming from points east of and including Minnesota.

Western Spruce. Covers spruce timber from the Pacific Coast.

White Pine. Covers the timber which has hitherto been known as white pine, from Maine, Michigan, Wisconsin, and Minnesota.

Idaho White Pine. Covers the variety of white pine from western Montana, northern Idaho and eastern Washington.

Western Pine. Covers the timber sold as white pine coming from Arizona, California, New Mexico, Colorado, Oregon, and Washington. This is the timber sometimes known as "western yellow pine," or "ponderosa pine," or "California white pine," or "western white pine."

Western Larch. Covers the species of larch or tamarack from the Rocky Mountains and Pacific Coast regions.

Tamarack. Covers the timber known as "tamarack," or "eastern tamarack," from states east of and including Minnesota.

Cedar. Covers white cedars: *Thuya occidentalis*, Maine to Minnesota and northward; *Chamæcyparis thyoides*, Atlantic Coast from Maine to Mississippi; *Chamæcyparis Lawsoniana*, along the coast of Oregon; *Libocedrus decurrens*, Cascades and Sierra Nevada of Oregon and California. Red Cedars: *Thuja gigantea*, Washington to northern California and eastward to Montana; *Juniperus virginiana*, throughout the United States.

Cypress (*Taxodium distichum*). Covers bald cypress, black, white and red cypress from swamp and overflow land along the coast and rivers of the southern states.

Redwood. Includes the California wood usually known by that name.

Tabulation of Association Standard Sizes and Those Recommended for Adoption

The sizes recommended for standards are shown in the right-hand column of the accompanying blue-printed tabu-

lation of sizes of the different associations. We have been guided in its preparation by the discussions at the conference on standardization held on June 30, and by our policy of producing a consistent plan.

The sizes recommended are those generally prevailing in the present standards of the subscribing associations. In 6-inch sizes and under, 3/8 inch is allowed for sawing and surfacing, while 1/2 inch is allowed for sizes of 8 inches and up.

The sizes recommended for common boards and strips, rough or surfaced one side, are the result of a strong demand for a thicker board for use where 3/4-inch shiplap or 11/16-inch boards do not have sufficient strength to meet the requirements. A stronger, stiffer board is needed for roof sheathing in restricted districts which require the use of slate and tile or slag roofing, and for sub-flooring where thin, mosaic finish floors are used, also in places where a designer is not justified in specifying a material heavier than one inch because of the cost involved.

The sizes for dimension, surfaced one side and one edge or surfaced four sides, should be the same in order to make framing lumber all of the same size. The advantage of this plan is obvious where detailing is necessary. Similarly, where strength calculations are made for lumber surfaced on four sides, it applies equally well to lumber surfaced one side and one edge, when used in the same capacity.

A 3/16-inch rabbet is recommended for shiplap in order to allow a wider face than would be possible with a 1/2-inch rabbet. We also recommend that the dropsiding tongue and groove joint be brought up to 3/16 inch to harmonize with the shiplap joint.

It is recommended that 2-inch finish be dressed to 1 5/8 inches to harmonize with the general plan and also because of the convenience it affords in detailing along with common dimension.

It will be noticed that when 1 1/2-inch or 1 1/4-inch or 1-inch material is used double, it makes the same thickness of material as that of twice the nominal size. The sizes generally recommended will enable the adoption of standard details for framing and finishing in common types of construction and is strongly urged by architects. While a general increase in sizes is urged by some parties, we feel that the recommended sizes are entirely adequate and much more economical with the present methods of framing, than would result from such an increase.

ASSOCIATION AND RECOMMENDED STANDARD SIZES FOR LUMBER*

Kind of Lumber	Nominal Size		Recommended Sizes Based on air-dry stock with maximum of 20 per cent moisture	
	Thick	Width	Thick	Width
Common Boards and Strips	1"R, 1"S1S, 1"S2S, 1¼, 1½	2, 3, 4, 5, 6, 7, 8, 9, 10, 12	11/16, 13/16, 1	3 5/8, 5 5/8, 7 1/2, 9 1/2, 11 1/2
Dimension	2, 2½, 3, 4, 5, 2R	2, 3, 4, 5, 6, 7, 8, 9, 10, 12	1 5/8, 2 1/8, 2 5/8, 3 5/8, 4 5/8, 1¾	3 5/8, 4 5/8, 5 5/8, 6 5/8, 7 1/2, 8 1/2, 9 1/2, 11 1/2
Finish	3/8, 1/2, 5/8, 3/4, 1, 1¼, 1½, 2, 2½, 3	4, 5, 6, 7, 8, 9, 10, 12, 14, 16	1/4, 5/16, 3/8, 7/16, 1/2, 1 1/4, 1 1/2, 1 5/8, 2 1/8, 2 5/8	3 5/8, 4 5/8, 5 5/8, 6 5/8, 7 1/2, 8 1/2, 9 1/2, 11 1/2, 13 1/2, 15 1/2

Kind of Lumber	Nominal Size		Recommended Sizes Based on air-dry stock with maximum of 20 per cent moisture	
	Thick	Width	Thick	Width
Flooring	3/8, 1/2, 5/8, 3/4, 1, 1¼, 1½, 2, 2½, 3, 3½, 4	T. & G.: 3, 4, 5, 6; Splined: 6, 7, 8, 9, 10, 12; Shiplap: 6, 7, 8, 9, 10, 12	11/16, 1 1/4, 1 1/2, 2 1/8, 2 5/8, 3 1/8, 3 5/8	T. & G.: 2¼, 3¼, 4¼, 5¼; Splined: 5½, 6½, 7½, 8½, 9½, 11½; Shiplap: 5, 6, 7, 8, 9, 11
Ceiling	3/8, 1/2, 5/8, 3/4, 1	3, 4, 5, 6, 7	1/4, 5/16, 3/8, 11/16, 3/4	2¼, 3¼, 4¼, 5¼, 6 1/8
Partition	3/8, 1/2, 5/8, 3/4, 1	3, 4, 5, 6, 7	1/4, 5/16, 3/8, 11/16, 3/4	2¼, 3¼, 4¼, 5¼, 6 1/8
Grooved Roofing	1	8, 10, 12	11/16	7½, 9 3/8, 11 1/2

Kind of Lumber	Nominal Size		Recommended Sizes Based on air-dry stock with maximum of 20 per cent moisture	
	Thick	Width	Thick	Width
Fencing	1, 1¼, 1½	3, 4, 5, 6	11/16, 1 1/4, 1 1/4	2¾, 3¾, 4¾, 5¾
Drop Siding, D. & M.	5/8, 3/4, 1, 1¼, 1½	3, 4, 5, 6, 8	1/4, 11/16, 3/4	2¾, 3¼, 4¼, 5¼
Drop Siding, Worked Shiplap Rustic	5/8, 3/4, 1	6, 7, 8, 9, 10	3/4	5 1/8, 7 1/8, 9 1/8
Shiplap	1	4, 5, 6, 7, 8, 9, 10, 12	3/4	3 1/8, 5 1/8, 7 1/8, 9 1/8, 11 1/8
	Rabbeted			3/4
Bevel Siding	½ ¼ E	3, 4, 5, 6	½ & 1/4	3½, 4½, 5½
	5/8 ¼ E	4, 5, 6, 8	5/8 & 1/4	7¼
	¾ ¼ E	10, 12		9¾, 11¾

*The standard sizes of the various associations have been omitted from this tabulation.
NOTES.—G refers to green lumber; R refers to rough lumber.

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Shadows and Straws

WE ARE LIVING in a sorely troubled world. The news from Europe continues to cause anxious apprehension. In our own country we seem reluctant seriously and solemnly to face the grave problems with which we are confronted. Our newspaper press is full of the quantitative theory of remedy. Miles of figures are quoted. Production is seized upon as the key to all solutions. One class indicts another. Men in high places utter driveling platitudes as though they were profound prophecies. All is confused, devoid of direction, with statement and restatement in terms that are worn threadbare by an ignorant reiteration that is pathetic.

In the midst of it all, there are certain very significant happenings, quite aside from the agonies and horrors inherited by the nations of Europe. At New Orleans, in January, the Forestry Congress again sounded its warning about the continuing destruction of our forests. In the last *National Geographic Magazine* the director of the Geologic Survey again sounded warning over our fast-disappearing petroleum resources. Giving grave emphasis to this warning, the *Annals of the American Academy of Political and Social Science*, for January, contain the statement of Robert W. Woolley, a member of the Interstate Commerce Commission, on our necessity for fuel conservation. "In a recently published statement," says Mr. Woolley, "E. Mackay Edgar, a noted English authority on oil, predicted than in ten years the British Empire will be selling 500,000,000 barrels of oil annually to the United States. Estimating the value of this oil at $1,000,000,000, he asserts it will be the means of restoring and maintaining sterling equalibrium. He said: 'More oil has probably run to waste in the United States than has ever reached the refiners. Improvidence, carelessness, a blind gambling spirit, have marked all except the most recent phases of the industry. The great oilfields of the United States are nearing exhaustion, and it is not believed that the new ones which are being proved will yield anything like the old prodigal production. America has recklessly, and in sixty years, run through a legacy that, properly conserved, should have lasted her for a century and a half.'"

THE HOUSING SHORTAGE in the United States continues to mount. We do not know how to meet it. The high cost of building is laid to this and to that, and a great New York banking house publicly counsels connivance in bringing about a financial depression such as will cause unemployment, lower wages, lower costs, and generally restore our shattered constitution. Wherever we turn, we seem to find a baffling array of complexities. The truth is that, having sown some of the wind, we must reap some of the whirlwind. No nation can gamble away its natural resources, for profit to the gamblers alone, without paying the piper. Oil and forests are significant. Vaguely guessing their portent, there are murmurs and questionings in the minds and in the hearts of men. There are seekings and gropings. What are the answers?

HOW SHALL WE, who are interested in architecture, greet the proposal of the bricklayers of Manchester, England; or the wish of the bricklayers of Philadelphia; or the problems set forth by the draughtsmen, all of which are touched upon in this issue? One could cite innumerable instances of the same kind, drawn from movements that are taking place all over the world. That they have their selfish side, may be true. The world obliges men to live by the law of the selfish motive. But to look upon such movements as purely selfish, or as menacingly unreasonable, or as economically unjust, would be deplorable. Underneath them all lies the confused murmur of life seeking an oasis in the desert of our mechanistic age.

To find the good in these movements and to encourage that good to rise and strangle the weeds of selfish interest is the task of those who have ears to hear that murmur and the courage to seek whence it

proceeds. To architects, workers in a great vocation, the rightful masters in the task of providing shelter for man, these voices should speak with a great certainty. They should recognize in them the spirit of their art. To no other ears ought the appeal to be so quick and so distinguishable. They call them to come out of the maze of money and profit, interest and investment,—the fatal maze into which architecture has been coaxed to wander, almost to lose herself,—and join with them in the creation of good buildings, bearing instead of the economic brand, the mark of the Spirit Creative. Suppose that the way out does lie in the guild principle, under which architect and workman combine to control the industry rightfully theirs? It would mean emancipation for architecture and why should we fear to be emancipated?

THE ATTENTION of all architects is called to the subject of the joint registration law proposed by Engineering Council and discussed in this issue by Mr. Schmidt, chairman of the Institute Committee on Registration. Immediate consideration of this question becomes necessary, inasmuch as we are informed that a bill has already been introduced into the Virginia Legislature calling for a joint registration law of "Engineers, Surveyors, and Architects." In the absence of definite information as to the plans of engineers, this proceeding seems unfortunate, since there has been, as yet, no joint conference between representatives of the professions vitally concerned, for the purpose of clarifying the obscurities which Mr. Schmidt points out. Any hasty introduction of laws, in advance of such a conference, would seem most regrettable.

A CONTRIBUTOR HAS RECORDED for these pages the following:

"The Nebraska Chapter, when but a few months old, met its first real test in the interest of public service. The School Board of Omaha, having the intention to select an architect for a great technical and commercial high school, called upon the Chapter for advice as to the proper methods of procedure. The Chapter, through its Executive Committee, advised an appointment by direct selection, and stated that should a Chapter member be selected he would have the support of the Chapter in his further proper relations. The Board asked the Chapter if it would review the selected architect's sketches, drawings, and specifications, in the public's interest, and answer was made that the Chapter would so act if the request came at the desire or had the concurrence of the architect. The architectural firm soon appointed is headed by a prominent Institute member of the Chapter, and in due time their sketches were, at the joint invitation of Board and architects, submitted to the Chapter, first in joint session of Board and Chapter. The latter's full reaction to the submitted solution was asked by the Board. Two meetings of the Chapter and many individual studies taking place thereafter, the Chapter at a regular meeting finally passed the following resolution:

" '*Be It Resolved*, By the Nebraska Chapter of the American Institute of Architects, in regular meeting assembled, this eighteenth day of November, 1919, that it is the sense of the Chapter

" '(1) That the sketch scheme of the Omaha Technical and Commercial High School, as submitted to the Chapter by Architects F. W. Clarke and E. B. Clarke for inspection at the request of the Board of Education, School District of Omaha, is one which represents in general a satisfactory solution of the problem in question, the details of which should be considered carefully with reference to concentration of units, and general architectural effect;

" '(2) That the general solution presented is worthy of adoption;

" '(3) That full confidence be expressed in the Messrs. Clarke to create a building which will fulfil the dictated requirements of the school's administration, and which will be an architectural credit to the community.'

"The School Board in acknowledgment stated that it considered the Chapter's interest in the public service 'very public spirited, and highly commendatory.'

"The Executive Committee of the Chapter took the position that collectively the Chapter held latent power in the community's interest, through architectural and technical knowledge and practice, and that it should not stand back and refuse to function when called upon by an important public body such as the Board of Education, composed of non-salaried, non-architecturally trained citizens, entering upon a general building program to involve some six millions of dollars. The selected architect freely coöperated in the working out of this general pronouncement.

"The result has been the laying, in most of the professional minds, of the "ghost of jealousy," but frankly there is doubted by some the wisdom of the course if it is to be accepted as a precedent for Chapter policy. The Board, on the other hand, has in the public's interest received the coöperative and personally disinterested study and discussion of its problem by that local body best qualified to hold constructive opinion in a building project.

"It is noted that in another way the School Board of Buffalo is being served by architects collectively, but this time through the collaborative production of many under the advice of one, rather than the collective advice of many on the product of one."—C. H. W.

The Senate and the United States Housing Corporation

AS a supplement to the January issue of the Journal there were published excerpts from the summary of findings handed in by the Senate Committee on Public Buildings and Grounds as a result of its investigation of the operations of the U. S. Housing Corporation. These excerpts were published without comment. Since that time there has been opportunity to study the report in question and to hear comments and criticisms offered in the newspaper press and through other channels.

I do not consider that I am possessed of a mind that would qualify as super-judicial. Therefore I am, perhaps, unable properly to dissect the document in which were summed up the findings of the Senate Committee. I dare say that the Senators who signed the report have judicial minds and that they are capable of understanding it. I doubt, however, whether they read it through very carefully before signing it, and I doubt also whether they read it in connection with the full report of the investigation on which the findings were based.

An investigation of this kind, where hearings are held and testimony taken, does not mean that the full Senatorial Committee is present at all of the hearings. It means that possibly one or two members of the Committee sit at the hearings, and that under ordinary circumstances none of the members would attend all of the hearings. Very likely some members of the Committee would attend no hearings. It would be quite impossible for the Senators to find the time to carry on their business if they were obliged to attend all the hearings before committees of which they were members. As a consequence, they are often obliged to depend upon the Chairman of the Committee for the report which they sign. In this case it would appear that they placed their reliance upon the counsel employed. It should also be noted that this investigation was by a subcommittee of the full Committee.

Therefore I take it that the findings published in the document from which we printed extracts are rather in the nature of an ambitious attempt on the part of a lawyer who seemed to see in this work an opportunity for a distinguished performance. When these findings are read in connection with the whole report and testimony, the distinguished character of this particular legal performance does not leave a pleasant impression. It leaves a particularly unpleasant impression, in view of the fact that a member of one profession seems to have been dealing rather carelessly with the reputation and character of the members of another profession, and with the reputation and character of men in numerous honorable vocations. I incline to the belief that some of the Senators who signed this report were not particularly and peculiarly appreciative of this distinguished legal performance. This belief is considerably supported by the fact that whereas the findings concluded with the statement that the Senate Committee believed the Housing Corporation no longer essential to the best interests of the Government and suggested that legislation—"proper pointed legislation"—would be submitted in the next few days, designed, one would infer, to put an immediate end to the Housing Corporation, the fact is that the "proper pointed legislation" which the Senate now has under consideration, provides for the continuance of the Housing Corporation until the 30th of June next, by which time the officers of the Corporation believe that all of its affairs can be properly wound up. But an even more pointed support of my personal belief is found in the interesting statement of Senator Trammell on the floor of the Senate on January 21. Senator Trammell, by the way, is a member of the Committee on Public Buildings and Grounds of the Senate, and was one of the signers of the report in question. He was also a member of the subcommittee charged with the investigation. Senator Trammell, in the statement to which I refer, was speaking on the subject of another senatorial investigation, and said:

> I am opposed to the employment of counsel to practically take charge of the investigation before the subcommittee. I will state, Mr. President, that I believe as a rule that in making investigations counsel assumes the attitude of a prosecuting attorney. My observation in legislative branches of the Government has been that if you employ an attorney, his main object, as a rule, instead of trying to get at the facts from the standpoint of fairness, is to try to bring about a conviction or the condemnation of some one who is being investigated.
>
> I know of one committee of the Senate that employed counsel for at least two or three months to conduct an investigation, and, after that two or three months of labor, he prepared a report for the subcommittee, and it was signed by four members of the subcommittee before reaching my hands for signature, and I decided that I would do probably the unusual thing and read the report before I signed it. So I read the report and I found, among other things, that the counsel had recommended, and four other members of the subcommittee had signed it, that the board for the young ladies who were occupying the Government dormitories should be increased $15 per month, so that the Government could get 5 per cent interest, based upon the original investment in those dormitories.
>
> I found also that in the question of dealing with buildings he had stated in this report that members of the committee, when they looked upon the magnificent buildings being occupied by mechanics at some particular place, they suffered with pangs of residential jealousy. This is just a little illustration to show you the viewpoint of a counsel and an attorney and his object in dealing with these matters. He was looking on the whole proposition very largely as a matter of trying to condemn somebody. The report, however, was changed after I read it. I think, Mr. President, that you have a fairer investigation if you do not select counsel who is to go in and act as a prosecuting attorney. My observation has been that they assume that attitude very generally,

and I do not feel like having anyone to take up an investigation with a view of trying to convict somebody or trying to clear anybody, but I want the investigation to be actuated by a sense of fairness all the way through. For that reason I object to employing counsel. I do not mean any reflection upon the attorney employed by the other committee to which I have made reference, but merely referred to this case to show the trend of counsel in such matters.

So far as the architectural profession is concerned, and, generally, so far as the officers of the Housing Corporation and their acts and the acts of their employees are concerned, I believe that this statement of Senator Trammell's may be taken as a dismissal of the subject. I know that the Housing Corporation made mistakes, as did everyone else who was called upon to make thousands of instant decisions in the midst of an unparalleled and unprecedented situation, but the honor or integrity of men like Otto Eidlitz and Burt Fenner is not to be tarnished by that particular kind of legal practitioner to whom Senator Trammell refers. A good many awkward questions could be asked, I imagine, of this particular counsel who, it would appear, drew up the summary of findings. It does not seem like a highly professional performance, for example, to ignore sworn testimony and evidence in order to draw conclusions utterly contrary to the conclusions that should be drawn from such sworn testimony and evidence. It seems, indeed, highly and reprehensibly unprofessional to resort to such a method for the apparent purpose of framing an indictment. President Sherman, of the Housing Corporation, in public statements, has pointed out certain rather glaring instances in which sworn testimony and evidence were ignored and where the deductions offered in the report are quite contrary to the statements in the findings. Others have also called my attention to many very apparent discrepancies, but a recital of these would be quite beside the point at present, for my opinion is that the statement of Senator Trammell has really let a particularly large cat out of a particularly small bag.—C. H. W.

A Plea for Education in Art and Public Taste*

By HENRY K. HOLSMAN

IN that marvelous story of the Creation, in the first few words of Genesis, the author shows that he regarded it to be a divine work of art, for he applied the artist's test at the end of each day, and as if we might forget that the chief motive of Creation was (and as I believe the natural motive of any creative work of art is) the joy of doing the work, he repeated for the seventh time, "and God saw all that he had made and behold it was very good."

I recently made the acquaintance of a waif who works as errand-boy for a blue-print company, and who is studying art at night school. He said he was having "lots of fun" with his night school because the teacher seemed to depend on him to help the other fellows, for the teacher is a manual training teacher and knows very little about art.

He had learned about art, he said, in Sunday-school, in St. Paul, Minn. They were building a new church at the time. His teacher was an architect, and showed the class many things about the design and decoration of the building. He grew to love some of the figures carved on the pulpit. One of them held a "cup of the devil's," in which a snake was carved. The authorities discovered this, and concluded that a snake was not proper in a church. One day the snake was gone. The boy slipped his fingers into the cup, felt the little stump where the carver had cut out the snake, and was so disgusted with the ruthless destruction of beauty that he left.

*Extracts from a paper read before the Association of American Colleges.

There were nineteen boys in that class, and they are now all engaged in some form of art work, drafting, furniture, pottery, and he is at present doing his humble part in architecture. By an accident he was deprived of his right arm. He is going to night school with the idea that, if he can learn to draw, he can design something, too.

Why Not Study Art as a Force?

With this abbreviated narrative as a parabolic syllabus, I wish to make a plea for a systematic, scientific study and development of art in our American colleges, a plea for such a study and investigation as the college has given to medicine, which has wiped out so many plagues and has eliminated typhoid from our army; such an investigation as is given to science, which created the mechanisms to perform our mighty works and wiped out the oceans that once separated people from people, and that now discovers even light to be a form of material we may yet learn how to use. All these and similar developments have been made possible by the study, research, and training in appropriate colleges. They have developed these and a hundred other wonderful powers, from mere hints of the most elusive phenomena of nature, but have done nothing with that little understood, but long recognized, phenomenon of art. Yet the waif of the street is transformed by that wireless transmission of beauty, that dazzling form of unknown energy called art, that vibrating energy that excites the normal activity of the

senses, attunes the latent instinctive being, and quickens that functional activity which distinguishes man from beast, and breathes into him that divine power we call the soul of the race.

We build museums like mausoleums and, like true mourners, we gaze upon the outward forms of ancient beauty from which the life has long since gone and lament "the lost arts." Let us turn these museums into laboratories of "psychological esthetics," for the discovery, investigation, capture, and application of this marvelous energy of art—to the development and supreme happiness of all our people. Who knows but that in the process we may not stumble into a scientific appreciation of that other imperious power, love, and make its law also of universal, practical application in our daily lives.

The Different Connotations of "Art"

To the littérateur or philosopher, art is the expression or embodiment of beautiful, elevated thought, imagination, or feeling, in language, painting, or sculpture, through harmonic suggestion, latent in the medium used. This is, perhaps, the *flower* of art, but it has been plucked from the stem, and its roots among the people have long since died of neglect.

To the scientist and naturalist, art is the bringing of nature down to a plane comprehensible by man. To the religious-minded, art is the revelation of man in his striving after perfection of execution, while nature is the revelation of God in the perfection of creation. "A race which has a vital message to impart will deliver it in its architecture." Art will carry the message, whether it be significant or meaningless, worthy or unworthy.

To the industrial and mechanical world, art is the attempt to achieve the individual's conception of perfection—to achieve beauty—to form the material so that it fulfils the function reasonably, as you feel it would could the material understand and rise exultantly to meet the duty with just enough movement and inherent force to do the thing, no more—no less. Thus, in architecture, the form seeks to achieve the harmonious balance of live forces of work and play, and the ornament serves to say how easily the work is done, or how rhythmically the play goes on.

In the voice of the people, art is not the subject, the plot, or the product of man or nature, nor the work of the hand or brain, but the *way* we work or the *way* we play—it is loving, laughing, singing with all our might, and living with all our hearts. This aspect of art is at once our responsibility and our opportunity.

Weed Out Plutocracy and Hypocrisy and Teach Brotherhood

To him that hath ears, this is no small voice crying in the wilderness—it is a voice that says to the philosopher and littérateur: "Weed out the useless trash of plutocracy, hypocrisy, and war in your libraries and tell us of the fullness of the brotherhood of man." To the industries it whispers: "Your plants are not so many buildings, wheels, and machines, however cleverly contrived and adjusted, but men and women of sentiment, muscle, and nerve who design and operate them and who must have houses and homes and the amenities of life in order to function as manufacturers." And to the colleges and schools they are saying: "Give us not more cunning by which to exploit others, not more tools for fashioning commerce and industry to selfish ends. We admit that coming into a world of physical surroundings, you must cultivate and protect our bodies and supply us with the mechanical extensions of the hand and senses, and perhaps a balanced equipment of observation, memory, and motion, far beyond their natural limitations, is necessary. We admit that during the process of equipment the spirit expands and the intellect develops; but there comes a day when means must be used for ends, life begins, and the pleasure of preparation must give way to the joy of doing. If you teach us only how to gain equipment, and we are bent only on securing the material reward of things with which to live, and then fail to live, all will be lost. While you are giving us this equipment, show us the *way* of life in the art of work and play."

Short-sighted America

The crying need for art in America has grown so loud and insistent, and the rewards are so great, that the marvel is that millions have not flowed to the colleges for the founding of art departments. That the demand is not met means either that we cannot understand the value of a phenomenon we know so little about, or that those who hear and know are so niggardly selfish and short-sighted that they will not respond.

We spent over one-half billion dollars on interior decoration the past year, not to mention millions in dress goods, fabrics, china, furniture, and such things. All of this material embraced form, color, and pattern, and sold primarily on the excellency of its design. With the stimulus of our scientific and engineering colleges and the protection of our patent laws, our mechanical development has grown by leaps and bounds. With our lack of education in design and our neglect to encourage and protect the designer, our art industries have developed slowly, and practically only through the use of foreign state-trained artists. When designs from abroad were unobtainable, some twenty years ago, our manufacturers began importing artists from France, Italy, Sweden, Holland, and Germany to create designs for them. It did not then occur to us to connect fabrics,

house furnishings, and jewelry with art schools. We knew of painting, but not that it was design in color and pattern; we knew of sculpture, but not that it was design in form. We had no schools with which to train designers—Europe had—and so long as the supply was adequate, we gave no thought to the future.

Imported Designers

Then came the war—none noticed until then that nearly all our furniture and fabric designers came from Germany. These designers and artists have gone. The present hysterical demand for designs is exemplified by the distribution of $2,100 in petty prizes and the greedy purchase of $3,000 worth of textile designs, on the first day of the recent exhibit of the Art Alliance of America in New York City. That exhibit "revealed many workers of great talent among recent arrivals from over-seas," and, incidentally revealed a reprehensible trait, born of lack of appreciation and understanding of the fundamental soul of art, the ruthless beating down of the artist's prices, and hence the beating down of his artistic standards, by applying to extreme limits the principle of buying cheap and selling dear—a thing that could not happen if the manufacturer and the merchant, as well as the artist, were trained together in the appreciation of art, in the same schools and colleges.

Hence the wail among manufacturers for art schools, and, incidentally, a scarcity of goods, poverty of design, and an unfortunate but needless factor in the high cost of living—an extravagance that will be many times greater than the cost of schools for artists and artisans—a waste that does not comport gracefully with national good taste.

The Fundamental Need of Taste

But the *fundamental* demand is not so mean and tawdry as is this commercial demand for industrial design, great and important as it is. The vital demand is for training in public, democratic taste—a taste that is an active trait of life for the selection of things that are good, not merely for things that are recognized by authority or test of time, but for the active life-taste that results from knowledge of the relation of things, the life that requires clean, economical, orderly, beautiful homes and which is an active force against the reverse—dirt, disorder, waste, and ugliness.

Sixty years ago Europe's aristocracy appreciated the value of industrial design and art, and spent millions in state and private schools for cultivating it, but the aristocratic statesmen could not see the necessity of universal education in art. Democracy, resting on public education, demands that *all* must be trained. To the three R's must be added some taste, yet taste cannot be learned by merely talking about it, but by problems in which decisions must be expressed; in immediate needs, by a discriminative judgment, born of many opportunities for choice. True appreciation of art, taste, and judgment of values results from creative experiences, *and the principal value of art lies in the act of production, not in the product.*

Taste is not a selective faculty of definite standards, but a constructive capacity and habit of mind that seeks to sharpen its perceptions that it may judge, not that things are better or poorer, but *how* better and *why* poorer. Our lamentable poverty in taste is expressed in our language. Everything in art is either "fine," "fierce," or "horrid," yet in a true democracy, where every producer is consumer, where every manufacturer is also buyer, national taste is as essential for the consumer as for the producer. We can never have a good national architecture or really economical products until we have a tasteful public. Art training is as essential to the soul of democracy as the mother's milk to the babe in arms.

We Are All Designers

We betray our limitations of esthetic reaction in everything we see and everything we do. We set a table—it is only a design. We deck ourselves with ribbon or tie—and thus we make a bit of a pattern. We are all walking designs of our own creation, and our homes stand to damn or praise us by virtue of their design, the decorations we hang on the walls and spread on the floor. The business man is not more exempt—he must plan his shop, lay out his office, dress his counters, and deck his windows. The manufacturer must handle design every step of the way from his first plan of the product until it is made, painted, boxed, labeled, displayed, and advertised. He must solve these questions even though blindly and ignorantly, and frequently achieves atrociously bad design, because of his bad taste, the result of untrained esthetic judgment, which cannot help him to select the better from the poorer.

That each citizen must read and write is regarded as a truism, but, to those who are not prepared for the inevitable and continual display of esthetic judgment, the truth that each of us is a designer, whether he knows it or not, comes with something of a shock, often so late in life as to be fatal. Among the rights of life, liberty, and the pursuit of happiness there is an inexorable unwritten law: Every citizen is an artist in his own right, and is entitled to training in taste and design.

But, says one, why not continue the training of the naturally gifted in art, in separate art schools, apart from colleges, and let them give the people standards of taste and design. A noted grand opera director, discussing the tenor voice as a freak of nature, said: "It is not hard to find plenty of good

voices, but it is almost impossible to find a good voice and a man in the same person." Freaks in art, music, or mathematics seem to be a development of a particular capacity to the point of overbalancing the man. Training the naturally gifted in their own over-stressed talent, without training the balance of the faculties, is like making a bunghole without a barrel. You can pour in a great stream of precious fluid in a short time, but there is no way of getting it back when the time comes for making it of practical use. We must put the good wine into good bottles.

But, you insist, is not industrial design and public taste a matter for the common schools to handle? How can the rural colleges begin to teach such things, and what should be the immediate results if they did?

Advice to Investors

It would be presumptious for me to advise the college presidents on such matters; but, to the prospective public or private investor in education, I may presume to venture an opinion. To the investors, I may say: A few years ago when a need for physical training was manifested, you hastened to provide every college with a gymnasium and athletic field, and today there is an insatiable call for physical instructors and playground directors in the public schools. When the manufacturers wanted help for developing machines and industries, you established chemical and physical departments, and the books they produced are now popular in the common schools, and every industry is ruled by the dictates of college trained chemists, or electrical, or mechanical engineers.

And what of the teachers? When the manufacturer or tradesman goes to the schools for vocational art, he finds all of the courses planned for entrance to the high school and college, and all instruction limited to what the teacher derives from college training. You cannot change the curricula of the schools except at the colleges, whence all the teaching force comes.

But why wait for the schools to do, in the vital matter of art appreciation and public taste, what they have never done in any other branch of training? Place your millions behind the colleges—provide every college with a department of architecture, and let her mother all the other arts. If that sounds too pedantic, call it the chair of "art appreciation and design," or, to be more democratic, the "department of design and housing," for the house, if not the mother of the arts, shelters them all, and so long as the little mother sticks a feather in her hat or a flower in her raiment, there will the fertile seeds of art be planted.

A Laboratory of Public Taste

Yes; found a department of public taste and found it deep and broad, with laboratories beyond the capacity of the most gifted sons of the soil, in line, color, and form, and found it quick.

The time is ripe, the laborers are few, or not at all. And what shall the harvest be? If you endow every virile college youth of our great rural lands with the spirit of the artist, the beneficent rain will at once descend upon all our schools and industries, to make them bloom like the rose. Endow our school superintendents and teachers with true esthetic appreciation and the schoolroom will be transformed into real attractive life-patterns, where children are eager to go. Equip the dictators and managers of industries with the divine spirit of art, and the whole machinery of life will be directed to creating goods, for the joy of the user and producer alike.

Vitalize education of the people with the soul of creative art, and each citizen will find his place in group consciousness and achieve his work in the harmonious balance of the whole, while the rhythmic play of life goes on. When the citizen institutionally inherits the artist attitude, then, not what he gets, but what he gives, will be his chief concern. Then shall we have a true democracy, and each will do for the other what he knows the other will do for him, and be content.

This is not more impossible, Mr. Investor, than what you have already done in medical and mechanical science and other branches of education. Time was, almost within the memory of men now living, when electricity and other equally common potent forces gave promise of no use whatsoever. You invested millions in science and it has returned a hundred, perhaps a thousand fold. If you will now invest a few millions in psychological esthetics, in the true spirit of art, the return will be at least as great, and with it will come a priceless by-product—a true automatic democracy of intelligence, peace, and contentment.

The Competition for the Plan of Paris

We are informed by the French Embassy that the competition for a plan for the extension of the city of Paris, described in the Journal for January, is open to competitors in all nations allied with France in the war. Particulars of the program, together with copies of the laws bearing on the competition, plans, and all available data, may be had upon application to the Embassy in Washington. It is believed that the date for submission of plans has been extended in order to afford more time to all competitors.

Where Goes the City-Planning Movement?

III. GUIDING PRINCIPLES OF LAND SUBDIVISION

By FREDERICK L. ACKERMAN

ANY attempt to arrive at an accurate understanding of what passes for current opinion within the City-Planning Movement, with respect to recommended procedure in the subdivision of land into blocks and lots, is sure to end in bewilderment, for there is no consensus of opinion as to how land should be subdivided. Anything in the nature of a statement of conclusions would therefore contain all of the sundry odd recommendations looking toward a "standard of practice" thus far evolved, for a "standard of practice" in land subdivision seems to be an aim of the Movement. Notwithstanding the lack of definite conclusions, however, what may be called a "general practice" apparently has been evolved by others than those engaged in the Movement. Also, this "standard of practice" is very largely the result of an effort to write down, in a brief way, what has already been going on, although, more accurately, this effort might be described as an attempt to go the average practice "one better" by way of providing, for example, a grudging betterment in the shape of a little open space between buildings. The conditions of the present are taken as the point of departure, and, if I understand correctly, the aim of the Movement is to bring about a general acceptance of the "best" practices of the day by formulating them into a set of recommendations or "guiding principles" to be applied when land is subdivided and used for other than agricultural purposes. Naturally, the value of any attempt to "standardize" the subdivision of land is open to debate. I do not propose to debate that question. To what extent we should rely upon such technical considerations to work "reforms" will be suggested later.

The Sequence of Land Transformation

Running through the present talk is to be ob served the persistence with which we cling to a preconception as to the sequence which must be followed in the use of land from the time it is "cut up" until it becomes the site of the urban center. Farm land, scattered single houses, closely grouped single houses, multiple houses, tenements,—it is assumed that land must pass through this sequence in order that it may become the site of the city.

Naturally, the subject of "zoning" tends to modify this attitude. By zoning we suggest that land is to be restricted against certain uses, as, for example, business and industry and various kinds of residential occupancy; but this is largely lip service to the idea so far as it relates to the original subdivision of land. Judging from the drift of present talk in the Movement and the tentative rules laid down for guidance, it would appear that we still hold to the idea that the community must always expand through the time-worn process of constantly destroying residential areas. On the whole, the subdivision of land for the purpose of erecting thereon individual houses *appears* to emphasize this purpose as underlying all land subdivision. This is a negation of the "zoning" idea, for zoning assumes that we know in advance the ultimate use to which a given area is to be put; and it would therefore be assumed that the method of subdivision adopted for a given area would be in accordance with a known future use and *that the first use of the land would be subordinated* to its use in the future. That is to say, land would always be subdivided most efficiently to meet the conditions surrounding its ultimate use.

For it should be so obvious as to hardly warrant statement that by no other procedure would it be possible to provide urban centers with a plan other than one of a makeshift variety, yet in practice a future or an ultimate use is never considered. Land is subdivided to meet conditions having to do with the *purpose* for which it is first subdivided. In this connection, the word *purpose* is used advisedly in the place of *use* for reasons which will be noted later.

The Control of Financial Factors

It is probably fair to state that considerations having to do with the future *use* of land, even under the rules of zoning and under the direction of the "guiding principles" of land subdivision, fall into the background because of the simple reason that, in action, land subdivision is controlled by a group of financial considerations which have to do with "putting land on the market." This is a speculative business operation, and in actual practice no one, except the farmer in very remote rural areas, thinks of using land for any other purpose. *Using* land for residential or industrial purposes is a secondary consideration when compared with *selling* it for a profit. Land comes into the market, not because someone actually *needs to use it;* it comes into the market because someone may thereby make a profit out of subdividing it and selling it for residential purposes. The *sale* of land is really the animating force which brings about its subdivision.

A casual inspection of the suburban area of any

urban center is sufficient evidence, without reference to records, to warrant this assertion. Vast areas are subdivided in advance of any actual need, streets platted, and lots marked, and thus it stands for years, ofttimes impeding a logical expansion of the community. (It should be clear to anyone that the primary aim in subdividing land is thus to put it to a more appropriate *use*. This is a matter of more importance than this bald statement suggests; it will therefore be dealt with in concluding this series.)

In subdividing land which is likely to form an urban center, the first consideration in practice has to do with "front-foot" value. This consideration dominates over all others, and we know, as a consequence, that the street plan is generally so arranged as to provide the *maximum number of front feet*—and hence the greatest possible length of streets and public utilities—all of which, of course, is most uneconomic so far as concerns the people who actually *use* the land and the municipality which ultimately takes it over. It is a scheme which provides the greatest immediate short-term gain to the speculator and hence it is accorded the highest rating.

"Lots"

Not only do we deliberately so subdivide land as to make for the greatest possible expense in the installation of streets and public utilities, but we also cut it up into exceedingly small parcels which we call "lots" in order that likewise the greatest amount of speculative profit may thereby be gained. It is the common practice to subdivide land in outlying areas into 20- or 25-foot lots, which practice is excused on the ground that it gives the individual purchaser an opportunity of securing a varying amount of land.

The absurdity of recognizing a system of use and wont which drives directly toward the uneconomic use of land, and of working that into a statement of "guiding principles" carrying the sanction of authority, should be apparent to anyone. Hence, it is suggested that if the city-planning movement really hopes to make any contribution to the subject *How Best to Subdivide Land*, it would be well in its inquiry to ignore altogether what has come about through a practice of so subdividing land as to insure the greatest speculative profit and the maximum community loss.

Expedients

In arriving at anything which might be set down as "guiding principles," of course we would have to consider a vast group of factors which relate to the economical use of land for industry, for commerce, and for living. And our conclusions as to the best method of subdividing land for each of these *uses* would have to be based upon some new and fairly definite concept as to what constitutes a rational community. *Otherwise our effort must remain no more than an attempt to write a fairly accurate description of a state of confusion, or a fairly accurate description of use and wont.*

It is as statements of *expediency* that practically all of the "standards" and "guiding principles" thus far made in reference to land subdivision should be catalogued. For, as suggested, they are not in the nature of "guiding principles" at all. They are merely directed toward bringing the many practices of the day into goose-step.

The Scientific Factor

It is not to be expected that the individual spokesmen of the city-planning movement could spend their time upon the study of recommendations which could not possibly be put into effect, tomorrow or the day following. But, the conditions that prevent a thoroughly scientific scheme from being put into effect tomorrow should not inhibit any scientific study from being made today. A thoroughly scientific study of this as well as of the other problems of a similar nature must be made; and it must be made with the assumption that in the future it is to be the *use* of land and not the *speculative increment to be derived from the sale of land* which must determine the nature and character of the method of subdivision to be employed.

The fallacy of treating the practices of a given time and place as a perfectly secure point of departure may be illustrated by the conditions surrounding the genesis of the famous "dumbbell" type of tenement in New York. This type of tenement came into existence as a result of a competition held in the seventies to develop a new and better type of tenement building. The "problem" was confined to the use of a certain size of plot, not because it was a desirable size, but because it was a plot advantageous to handle for speculative purposes. The competition was won by a first-rank architect, and the solution was given a high rating. Time has demonstrated the vicious nature of that "solution," now rated as "slum." We are still attempting to solve this same problem under the same hampering conditions *as regards the use* of land which occasioned that effort and brought about that so-called "solution." Expediency is quite as apt to run in the wrong direction as it is in the right.

All that has preceded has been stated with reference to the use of small areas, such as blocks and lots. This, however, is but a part of the story. It remains to consider the matters previously referred to as they bear upon a larger area. What follows is therefore in the nature of a repetition; but restated from a somewhat larger point of view.

"Something for Nothing"

On the whole, making due allowance for certain exceptions, the American community has come into being as an organized effort, the purpose of which has been to secure something for nothing. Its creation has not ordinarily been animated by any conscious purpose nor by any very definite purpose as regards the *use* of land other than that speculative purpose above referred to. This is true not only as regards the location and the development of new communities; it applies with equal force to the expansion of existing centers of population. Any examination of the list of original purchasers of "lots" in Moonshine, L. I., or in Aurora Borealis, Mont., will disclose quite accurately to what extent this statement may be accepted as approximately true to the facts; not that all the original purchasers of lots in these two communities actually got something for nothing, but it was their hope so to do; and it is likely that, although they may have failed, others succeeded in that purpose.

The genesis of the American community, whether it be a new community or a suburb of an existing city, is a matter of business enterprise, and if its "development" coincides with the actual needs or *appropriate use* of the site, it is more likely to be the result of chance than of conscious social design.

"Natural Laws"

With respect to the location of towns, there is "popular feeling" that towns and communities always come into being as the result of the operation of "natural laws." Just what those "natural laws" are is not very clear, but we apparently believe that the mere fact that a community exists is sufficient evidence that its development must have been due to the operation of beneficent "natural laws."

It is notorious that our industrial towns are oftimes remote from sources of the raw material which they use and from the power supplying their industries. Ofttimes they emerge remote from transportation lines; ofttimes they appear as the result of a business effort to promote transportation lines well in advance of any actual social or economic need. Suburban areas are planted ofttimes under the most difficult natural conditions, while adjacent areas, subject to easy development, are left untouched. Of course, the animating force in all such enterprises is the prospect of gain in terms of price to the promoters of the enterprise. Very often these communities should be set up as a net loss so far as the larger community is concerned.

Land Conservation

Something of this spirit is revealed in the conservation schemes of the Government. The affairs of the Government being administered largely in conformity to the rules of modern business enterprise, it is but natural for public officials to embark upon projects looking toward the reclamation of waste land fairly certain to reveal a net gain in terms of price. Any attempt to reclaim areas already wasted through the operation of the forces now in effect, or any effort to put to a better use these areas already uneconomically developed, would of course show a loss in terms of price. What such a work of reclamation as last suggested might show in gain if stated in terms of productive effort, or in terms of actual needs, naturally cannot be seriously considered by the Government so long as Government is conducted under a business policy which evaluates effort in net gain, stated always in terms of price.

The Danger of Wasting Land

We have reached the point in our development where we can no longer afford to waste land or put it to an inappropriate use. We have likewise reached the point where we cannot afford the loss in materials and labor occasioned by the wholesale destruction of habitations and buildings to make way for the expansion of cities, as we have done in the past. Our central purpose must revolve around the development of a program which will aim at making an appropriate social and economic use of all areas now in the process of development and those likely to come in for development in the calculable future.

Confronted with the fact that the *use* of land is now deemed a matter of secondary importance, not only as regards lots and blocks, but also as regards sites for urban centers, it would appear that in so far as the establishments of "standard of practice" or "guiding principles" are concerned, the city-planning movement might well dispense with further discussion of this subject. For the establishment of "standards of practice" or "guiding principles" in accord with the business-like, speculative practices of those engaged in the work of extending our areas of mal-adjustments will not help matters very much nor materially alter conditions.

The problem of land subdivision involves far more than feet and inches and the establishment of "guiding principles," which are little more than descriptions of use and wont. The problem is that of working out the social and economic technique of transforming "raw" land into the community or the urban center in such a manner that the appropriate social or economic use of land and the formulas relating to its various uses will follow with a minimum amount of governmental regulation and control.

Viewed in this light it would seem that the problem had best be approached through an inquiry into how to gain such control over our economic institutions as more certainly to make for the common good.. This will be dealt with in a later article.

Noyon

By JEAN-PAUL ALAUX

THE little city of Noyon is assuredly one of the richest French cities in point of important historic souvenirs, and its cathedral enables us to recall most of them, although the fourth edifice raised on that spot. A monument on the square before the Hotel de Ville records that Charlemagne assumed the royal crown at Noyon in 768, and that Hugues Capet, ancestor of the French Kings, was crowned there by an assembly of Franks in 987.

In 1131, the church having been destroyed by fire, Simon de Vernandois, bishop of Noyon, determined its reconstruction on a grandiose scale. It was the period of that magnificent enthusiasm which produced such an astonishing growth of cathedrals upon the soil of France. It was also the epoch of crusades, when all western Europe started on a march toward the East. The world was emerging from that sad period of superstitious fear which had led people to believe that all things were to end in the year 1000.

The reawakening of energies in an ardent faith was prodigious; and, corresponding with this movement (though a little later, under Philip Augustus) came the enfranchisement of the Communes, which was a highly important socialist movement organized by the bishops, so that the cathedrals built by the people and for the people should be monuments offering "right of asylum," with the bishop's protection all-powerful against the abuses of the ever-aggressive feudal lord.

One is often surprised to see, in quite small cities of France, what immense cathedrals have been achieved—as at Chartres, at Bayeux, at Beauvais, to mention no others.

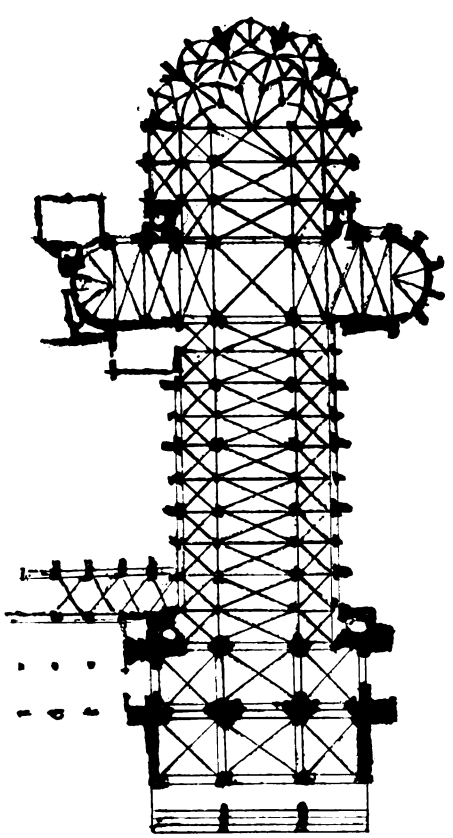
That of Noyon is a striking example. Begun about the year 1150, it was completed about 1230. It belongs to the Transition Style. The Gothic mode of construction was employed, opposing the thrusts by buttresses, the weight being carried on piers and not upon walls as in the Roman style which preceded it. However, concessions are made to Roman forms, and we find the round arch in the design of the bays of the great nave on a level with the arches—that is to say, in the part which was constructed last.

A feeling of indecision and of gaucherie might result from the simultaneous use of these two styles. But, quite on the contrary, the cathedral gives an impression of harmonious unity which strikes you at the first glance, and you feel that it sprang from one single inspiration. Within, the great nave is flanked by side-aisles. As far as the transept, there are ten ogival arches whose columns are sometimes isolated, sometimes grouped, which relieves the monotony. The transepts are very sharply accused and form marked salients in the plan.

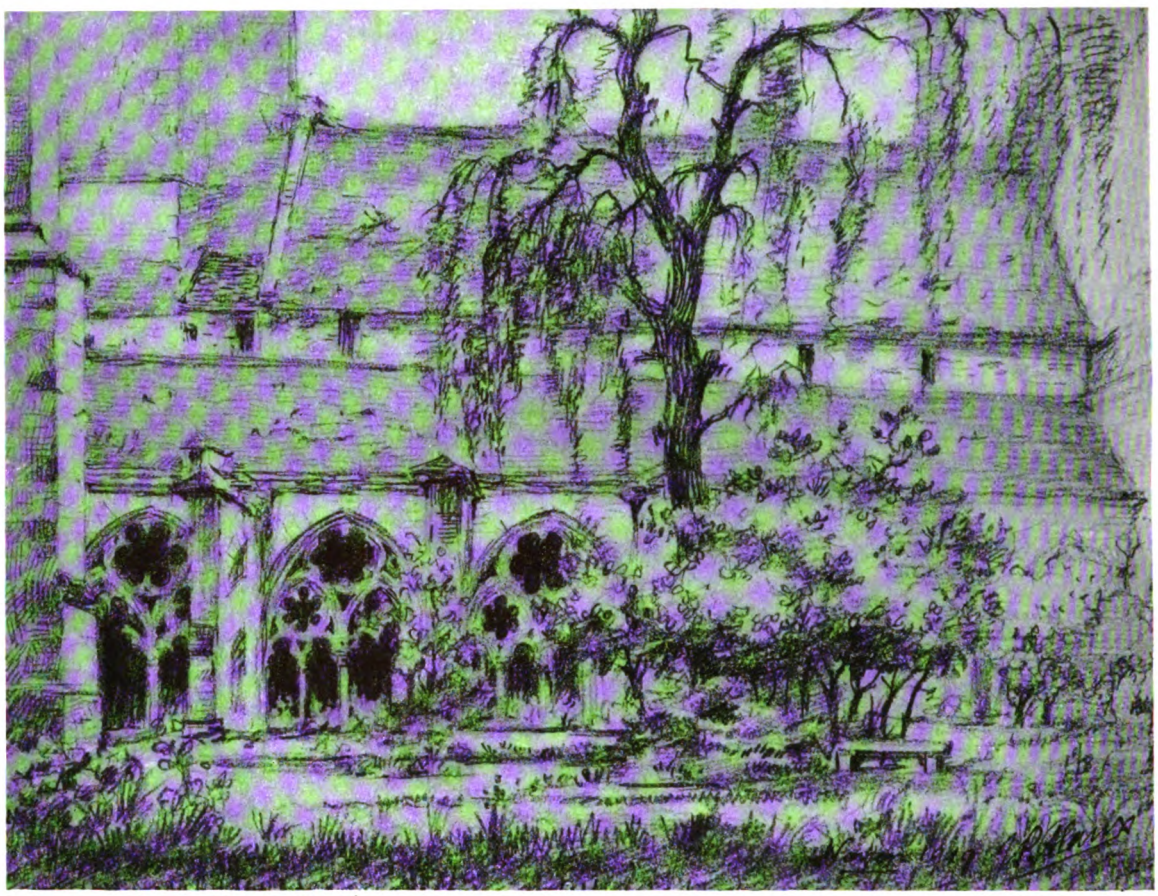
There is no ambulatorium around the transepts but it reappears in the choir raised upon nine ogival arches.

The three arches of the apse rest upon four columns scarcely 0.60 in diameter, which gives it an air of remarkable lightness. There is, however, no impression of weakness, although it is apparent that each column bears all the superstructure of the great nave, to which is added not only a part of the weight of the great vault but also the vault of the choir and that of the ambulatorium. It is very daring for that transitional period. But what *tours de force* will not appear later! Think of Beauvais, for example, which seems the extreme limit of possibility in Gothic construction.

The length of the nave is 94.33 meters. The total width, including the side-aisles, is 20 meters; the height under the vault is 23 meters.



NOYON
After a pencil sketch by the author



THE CLOISTER, NOYON.—After a drawing by the author

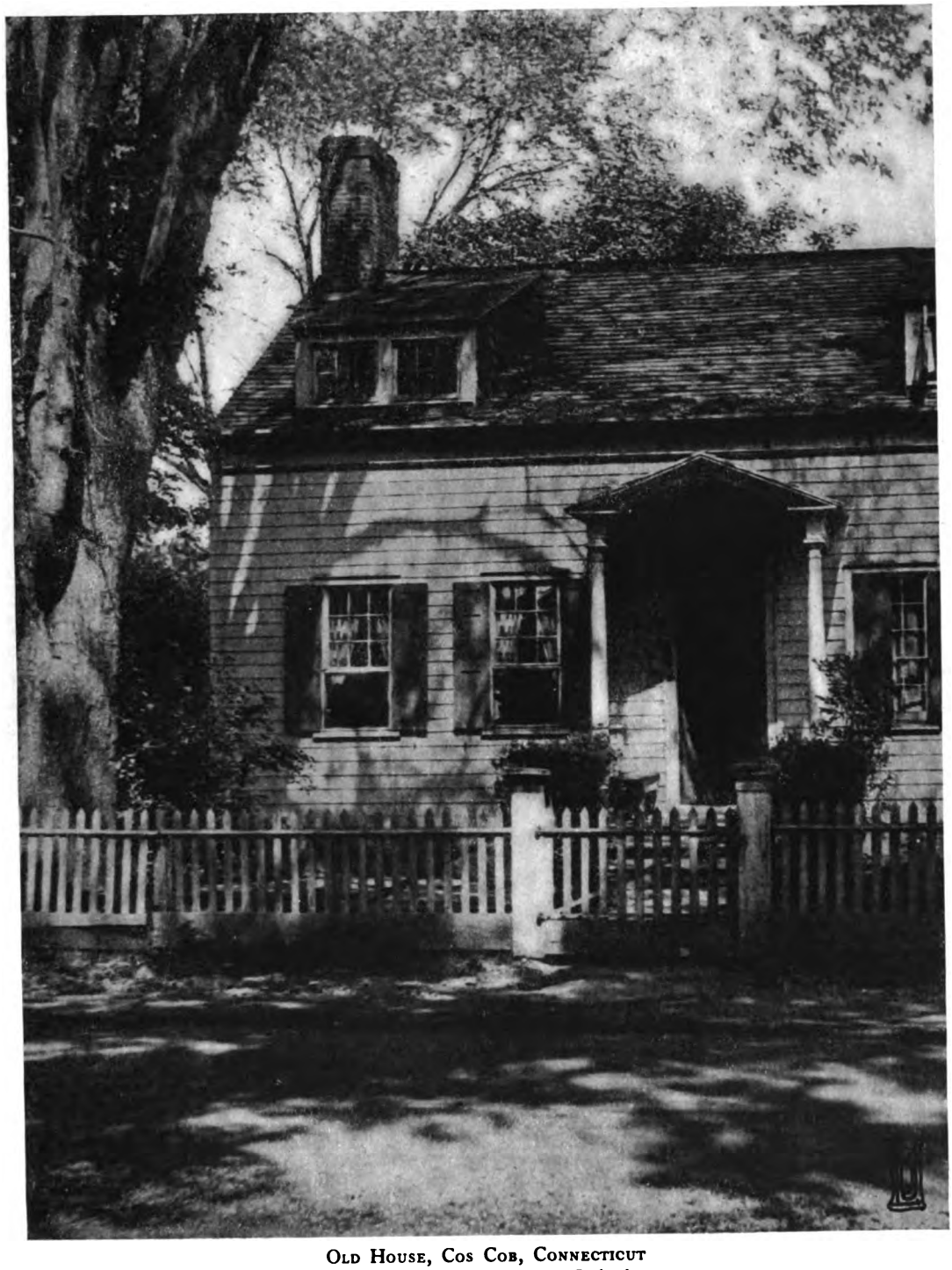
The cathedral, which, with the rest of the city, was fairly well respected during most of the German occupation, suffered greatly when the enemy army prepared to withdraw. The organs were dismantled and carried away with all their pipes. As to the woodwork and carvings, these were set on fire the night before departure, when the city was systematically ruined. The cathedral can be restored, but at what a price! The towers have been seriously damaged by the burning of the organs. It is transformed now into a vast carpenter shop, for they are cutting up immense fir trees from the Jura, measuring 25 meters in height, two of which together would not reach the level of the towers, whose restoration is in process.

The arches have been broken in numerous places. The radiating vaults of the choir are entirely collapsed. On the right of the transept, an obus fell on the keystone carrying the six ribs of the circular part. Here happened the curious phenomenon that the sustaining ribs, being detached from the vaults, all fell, but the vaults remained suspended, held simply by the cohesion of the materials and the excellent quality of the mortar.

Another obus struck squarely upon the first pier to the left of the organ. We ask ourselves by what miracle these stones, displaced throughout the whole thickness of that pier and torn out in many places, can still hold together. Genius has most skilfully strengthened the pier, and disaster has been averted.

Needless to say that the entire woodwork of the church is burned. Pending its restoration, it has been covered with corrugated iron. Thus will be avoided the fatal damage that would be caused by rains and frost on the exterior surface of the vaults.

A visit to the cathedral would not be complete without seeing the adjoining cloister, so beautifully wrought. We offer here a drawing which shows the peaceful garden, at whose end appears the delicate stone lacework of the ogives, and on the left the powerful buttresses of those enormous towers which formerly held the resounding chimes. In this cloister have been set up some specially noteworthy stones. They marked the tombs of the most distinguished bishops and prelates of the diocese. On one of them, with the name of a bishop, I read: "*Hic jacet in spem resurrectionis.*" On my return I watched the workmen laboring at the restoration of the beautiful structure, and I repeated, in the hope of seeing it live again, renewed of youth and glorying in its scars of war: "*Hic jacet in spem resurrectionis!*"



Old House, Cos Cob, Connecticut
After a photograph by Ben J. Lubschez

Old House Near Mianus, Connecticut
After a photograph by Ben J. Lubschez

OLD HOUSE, COS COB, CONNECTICUT
After a photograph by Ben J. Lubschez

Across Bryant Park, New York City
After a photograph by Ben J. Lubschez

The Competition for the Federal Buildings, 1792-1793

VI. THE COMPETITORS AND THEIR DESIGNS

By FISKE KIMBALL and WELLS BENNETT

Other Builders and Craftsmen

IN the states north and south of Maryland and Virginia the builders and craftsmen generally did not enter the competition for the federal buildings, most of the competitors from these more distant states being amateurs or architects with some professional character. In two instances, however, more ambitious and gifted craftsmen did forward designs: Collen Williamson of New York sending one for the President's House and Samuel McIntire of Massachusetts one for the Capitol. With these may be grouped an unsigned drawing for the Capitol—Number 33 among the drawings in Baltimore—of which the character seems to indicate that the author belonged to the group of builder-architects.

COLLEN WILLIAMSON

That a design for the President's House was submitted by Collen Williamson is evinced by a letter to him from Daniel Carroll of the Commissioners, July 19, 1792: ". . . . Yr favor with a plan of the Presidents pallace came not to hand until the 16th Instant."[1] The phrase was evidently meant to spare Williamson's feelings by leading him to believe that it came too late to be considered, although, as we know, the judgment was not completed until the 17th and designs received even later were not excluded. The authorities valued Williamson's abilities more highly in construction than in design, for the letter offers him the post of "Inspector of masonry." He had already served them in a practical capacity, as is shown by a letter of Carroll, May 10, introducing him to Jefferson:

"The Bearer of this is Mr. Collen Williamson of New York, from whence he comes at the request of the Commissioners—They desired him to take a view of the Acquia quarries—He appears to be a person of knowledge, & experience—it is probable that some engagement will be made with him—"[2]

On January 5, 1793, the Commissioners mention Williamson as being on hand, along with Ellicott, Hoban, and Hallet,[1] and his name appears on the inscribed plate in the cornerstone of the Capitol, laid September 18, as "Collin Williamson, master mason.[2]" On the adoption of the contract system by the Commissioners in 1794, he served them as superintendent of the masons'[3] work[5] until April 27, 1795, when he was discharged, the Commissioners writing: "the arrangements made this day for carrying on the Capitol render it unnecessary for us to engage you longer in the public employment.[4]"

Williamson himself suggests in a letter of disgruntled complaint to the Secretary of State, two years later, that religious prejudice was responsible:

"A young man was recommended to me by Mr. Elles the presbeterin minister in Baltemor, which I kept at my house about a yeare and built a small church for him which he continues in, this was such transgration that I could be born with no longer. . ."[5]

His own attitude was that "the public money has been thrown away by ignorance and party work," and in following letters he complains against Hoban and the "Irish vegbons."[6] The letter of February 20, 1798, is our last trace of him.

The only clue to his practice as a designer is his reference above to the first Presbyterian church in Washington. The young man he mentions was the Reverend John Brackenbridge, who began his labors in the spring of 1794 and founded St. Andrew's Church, which had its original house of worship "on the Low Grounds, near the Capitol."[7] No reliable evidence as to the form of this building remains.

The nature of Collen Williamson's design

[1] "Letters Received by the Commissioners," No. 116, vol. 2.

[2] Department of State, "District of Columbia Papers," vol. 1, p. 99.

[1] Letter to Jefferson, January 5, 1793. *Ib.*

[2] D. S. Walker: "Celebration of the One Hundredth Anniversary of the Laying of the Corner Stone" (1896), p. 123.

[3] Commissioners' letter of May 19, 1794, "Letters of the Commissioners," vol. 2, p. 74.

[4] "Letters of the Commissioners," vol. 2, p. 234.

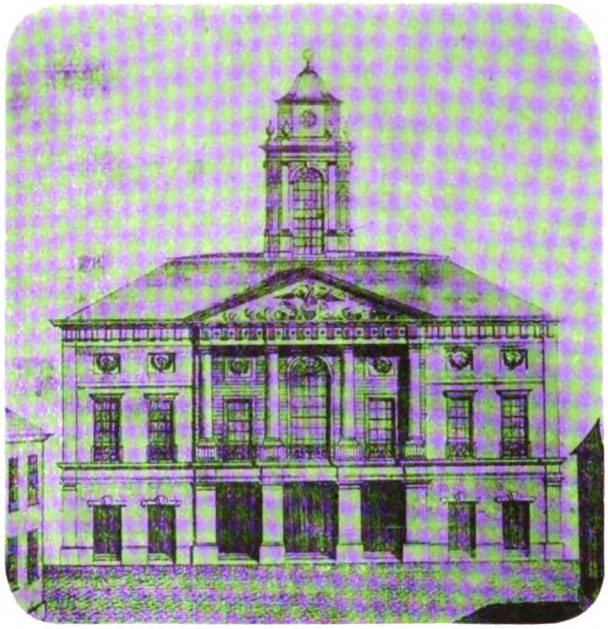
[5] July 3, 1797. Department of State, "District of Columbia Papers," vol. 3.

[6] November 27, 1797, and February 20, 1798, *Ib.*

[7] Jonathan Elliot: "Historical Sketches of. . . the District of Columbia. . . "(1830), p. 220. The Church described in the Columbia Historical Society "Records," vol. 8, pp. 54-56, is on a different site, and is evidently later.

for the President's House can hardly be even conjectured, in the absence of the drawings themselves and of any allusion by the Federal authorities to its character. From this silence and from the evidence that Williamson was little beside a practical builder, we may conclude, however, that it was probably of indifferent merit.

It has been said that Collen Williamson was a competitor for the Capitol, and that he was one of those called at the time of the conference in Philadelphia to determine if Thornton's plan was capable of execution,[1] two statements used



FEDERAL HALL, NEW YORK CITY
Pierre Charles L'Enfant, Architect
From the Massachusetts Magazine, June, 1789

as going to show that the judgment of the conference was a biased one. The first seems to have resulted from an imperfect memory of the letter cited above, showing that Williamson was a competitor for the President's House, for nowhere does it appear that he submitted a design for the Capitol. The second, which is coupled with a confusion of Carshore with Thomas Carstairs, rests on the careless interpretation of a passage in Jefferson's letter to Washington, July 17, 1793, regarding the conference:

"I need not repeat to you the opinions of Colo. Williams, an undertaker also produced by Doctr. Thornton who on seeing the plans & hearing the objections proposed, thought some of them removable, others not so, and on the whole that the reformed plan was the best. This passed in your presence. . . but he called on me the day after. . and thought all of them could be removed but the want of light and air in some cases,"[1]

and one in Washington's letter to the Commissioners, July 25, which also speaks of "Colo. Williams." The Commissioners had indeed written on June 23 that Williamson as well as Hoban and Blodget seemed in favor of Hallet's modified plan,[2] but the assumption that the "Colo. Williams" in Philadelphia was Collen Williamson receives no support from any of the correspondence of the time. This expressly states that it was Hoban and Hallet who were to go from Washington to Philadelphia to give their opinion.[3] It should be noted, moreover, that the opinion of "Colo. Williams" was not given at the conference itself, but afterwards, in Washington's presence, after his return to Philadelphia (July 11). That Washington, with his knowledge of the higher officers of the army, should have made the mistake assumed is almost unthinkable. It is likewise unnecessary, since precisely among the officers of the Pennsylvania line appears the name of Colonel William Williams,[4] doubtless identical with the William Williams who appears in the Philadelphia directories for 1791 and 1792 as "house carpenter."

"NO. 33"

The identity of the author of drawing numbered "33" in the collection of the Baltimore Historical Society is as yet unknown. The handwriting is not that of any of the competitors whose designs are missing (Turner, Blodget, Harbaugh, Williamson), and the draughtsmanship bears no special resemblance to that of any contemporary designers whose work is preserved. The correspondence of the Commissioners, moreover, makes no allusion to such a further design. That the sheet has been properly grouped with the Capitol competition drawings is sufficiently evinced by the long legend and the provisions of the drawings themselves. In the competition, our series "No. 33" has been placed with the work of the builders, though it is entirely possible that the anonymous author may have been an amateur.

[1]Glenn Brown: "History of the United States Capitol," vol 1. (1900), pp. 6, 9-12.

[1]"Letters of the Commissioners," vol. 1, p. 195.

[2]*Ib.*, p. 185.

[3]Letters of Washington to Jefferson, June 30, 1793, and to Hoban and Hallet, July 1, 1793.

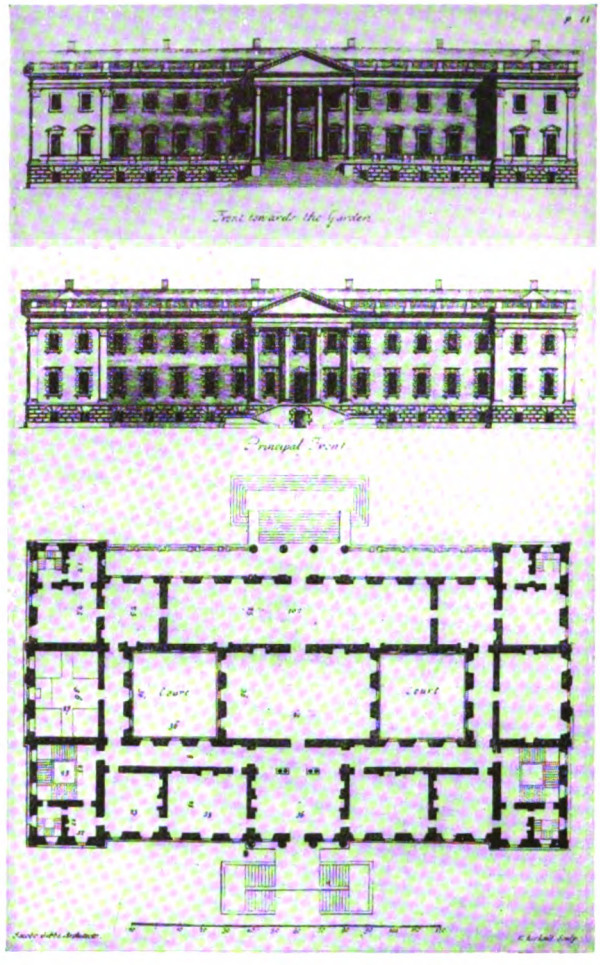
[4]F. B. Heitman: "Historical Register of Officers of the Continental Army" (1893), p. 439.

Notwithstanding the weakness of the elevation, both in conception and presentation, interest attaches to the main elevation in that it has an American prototype, L'Enfant's Federal Hall in New York. Engravings of this, the then existing legislative Capitol, had been published in the *Massachusetts Magazine* for June, 1789; and the *Columbian Magazine* for August, 1789, and its design could thus very easily have been the source of inspiration to the author of design "No. 33" wherever he might have lived. The recessed portico with columns on pedestals, the pediment with the eagle, the general arrangement of string courses, the roof and the "steeple" of "No. 33" all echo L'Enfant's design. Such departures as the increased size in plan, and the provision of two principal stories instead of one were not only necessary in laying out the specified rooms, but were in keeping with the anticipated grandeur of the new Federal City. That the plan of "No. 33" has, in the disposition of rooms, no apparent relation to the plan of the Federal Hall makes it the more probable that our designer knew his prototype only from published engravings of the elevation and the accompanying description.

SAMUEL McINTIRE

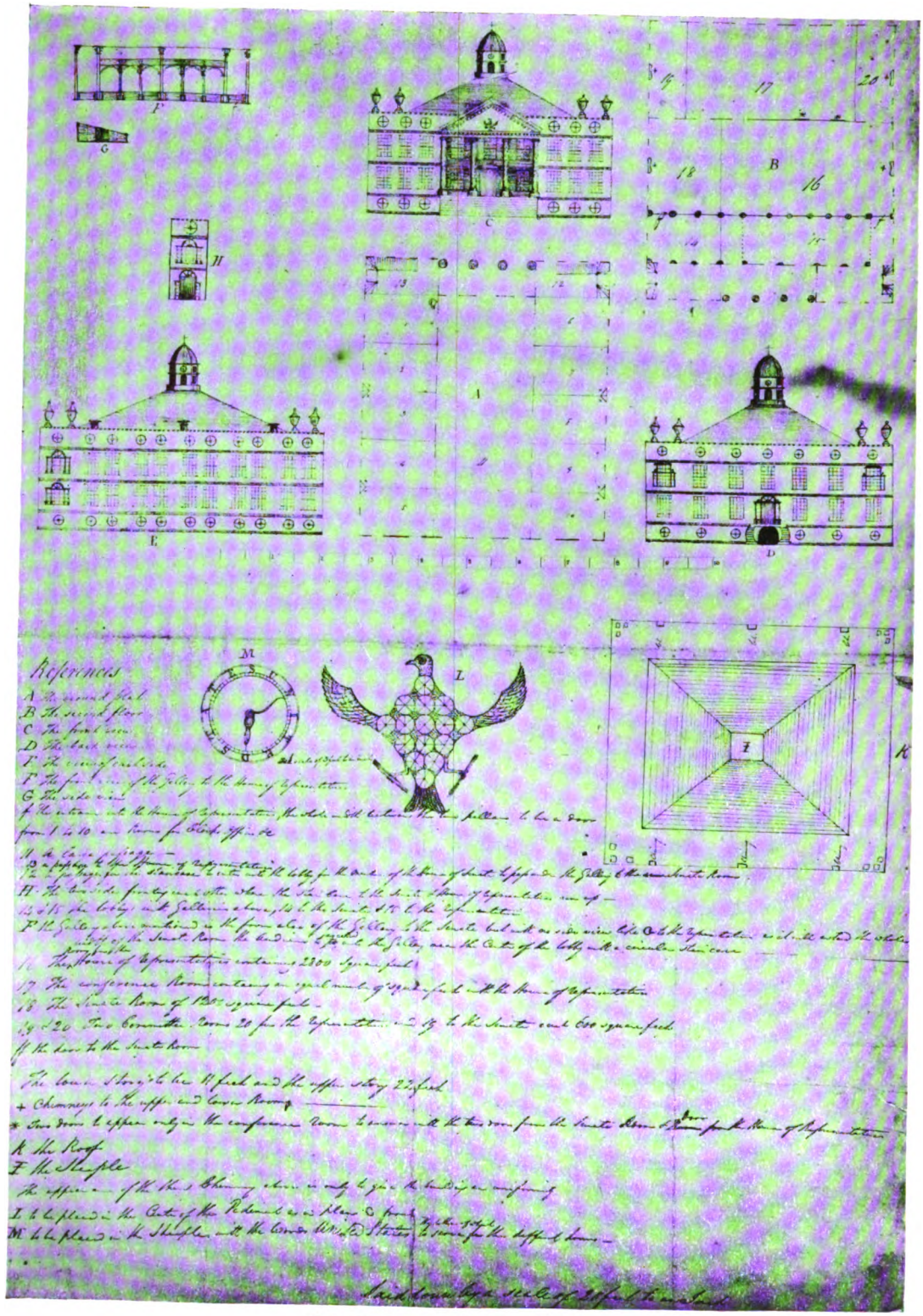
The most celebrated among American craftsmen, Samuel McIntire, of Salem, is still far from being really known. In all the flood of recent notices and studies, of photographs and drawings of buildings ascribed to him, the necessary foundations for an authentic knowledge of his works and his style have not yet been laid. Buildings and details in which he had no hand, executed before his birth or after his death, even modern reproductions of the last few years, have been published as his work. His development and change in matters of style, the influences under which it took place, and his relation to his contemporaries, all remain to be determined. The Essex Institute in Salem, custodian of McIntire's drawings and many of his works, however, is engaged in the publication of a monograph dealing exhaustively with his work, which it is hoped will place our knowledge of it on an adequate footing. Although, as entrusted with the editorship of this, one of the present writers has the benefit of its material and its conclusions, there is here neither space nor relevance for a discussion of all McIntire's numerous works in architecture, sculpture, and craftsmanship. The account of his design for the Capitol will be prefaced merely by such an outline of his earlier activity and style as is necessary for an understanding of the position of the design in the whole body of his work.

Samuel McIntire, the son of a carpenter without special distinction, was born in Salem, Mass.,



DESIGN FOR A GENTLEMAN'S HOUSE
From James Gibb's Book of Architecture

January 16, 1757. The first architectural designs of his which are preserved—for a great house begun by Elias Hasket Derby in 1780, but left unfinished, and demolished in 1800 (not to be confused with the more famous Derby mansion built in 1795–1799 and demolished in 1814)—show a degree of study hitherto unexampled in New England except by Peter Harrison. Besides this building, three others prior to the time of the Capitol competition are proved, by the preservation of his designs, to be of his authorship; the



DESIGN FOR THE CAPITOL, No. 33
From the original drawing in the possession of the Maryland Historical Society

Court House, built 1785–86; the façade added to the Pickman house in Washington Street (built 1764) for Elias Hasket Derby, about 1790; and the Stearns Block with its leading interior feature, Washington Hall, in 1792—all in Salem. At least one other building of this period must be added to these, the famous Pierce-Nichols house from about 1780; for, although documentary proof is lacking in this case, the points of identity of its façade with that of the Pickman-Derby house, and other internal evidences, are so numerous as to leave no doubt of McIntire's authorship.

The architectural character of these buildings of his early period is notably different from that of McIntire's later buildings on which primarily our idea of his style has been based. As with the best pre-Revolutionary buildings, their details were of academic character and proportions, derived from the architectural manuals of the middle of the century, in McIntire's case specifically from "The City and Country Builder's and Workman's Treasury of Designs" by Batty Langley (1st. edition 1740), revealed by comparison to be that one of Langley's very numerous works mentioned in the executor's inventory of McIntire's effects as "Langley's Architecture." Thus, for instance, the details of the main orders of the Pickman-Derby and the Pierce-Nichols houses come respectively from the Ionic and the Doric figured by Langley at Plates V and VI and Plate IV, and are employed only in pilasters with isolated fragments of pedestal and entablature as there shown. The mantel of the west or "Georgian parlor" of the Pierce-Nichols house is taken, with a single negligible change, from Plate LXI. In general, the breaking of architraves, friezes, and cornices is not uncommon, and other legacies of baroque freedom, such as the ogee frieze, still appear, although such extremes of earlier license as the scroll pediment are abandoned. The free-standing column and the portico are used much more liberally than before the Revolution, though not with greater boldness, being confined to small porches sheltering doorways, or, in the case of the Court House, to a light order opposite the basement story. In these porticoes the order used is uniformly the Roman Doric with triglyph frieze. The most ambitious academic features in the group are the portico of four columns and a pediment proposed for the unfinished Derby house, and the pedimented pavilion with four Ionic pilasters and a continuous entablature which formed the central feature of the Court House. With the possible exception of the old Faneuil Hall, the Court House—modest enough by our standards—was the most pretentious public building yet erected in Massachusetts.

The culmination of this earlier phase of McIntire's style came in his design for the Capitol. It was introduced to the Commissioners by a letter from Senator George Cabot,[1] with true senatorial condescension but less than modern insistence on patronage:

Beverly, Massachusetts
June 14th. 1792

Gentlemen:

Mr. Samuel McIntire of this vicinity is thought to have exhibited some proofs of a good taste in architecture & his friends have requested my opinion of the probability of his success in designing the federal buildings. . . .

Mr. McIntire's circumstances in Life have confined him to labor in a small sphere, his genius has been denied those aids to which Nature seems to have given him some claims but under all these disadvantages he is believed to be capable of producing a plan for a national Edifice not wholly unworthy the consideration of the Commissioners; under this impression I have encouraged his attempt, & have given the assurance that if his design should be elegant & should have anything of originality its merit would not be overlooked. . .

with great respect, I am, Gentlemen
your most obedient Servant
GEORGE CABOT

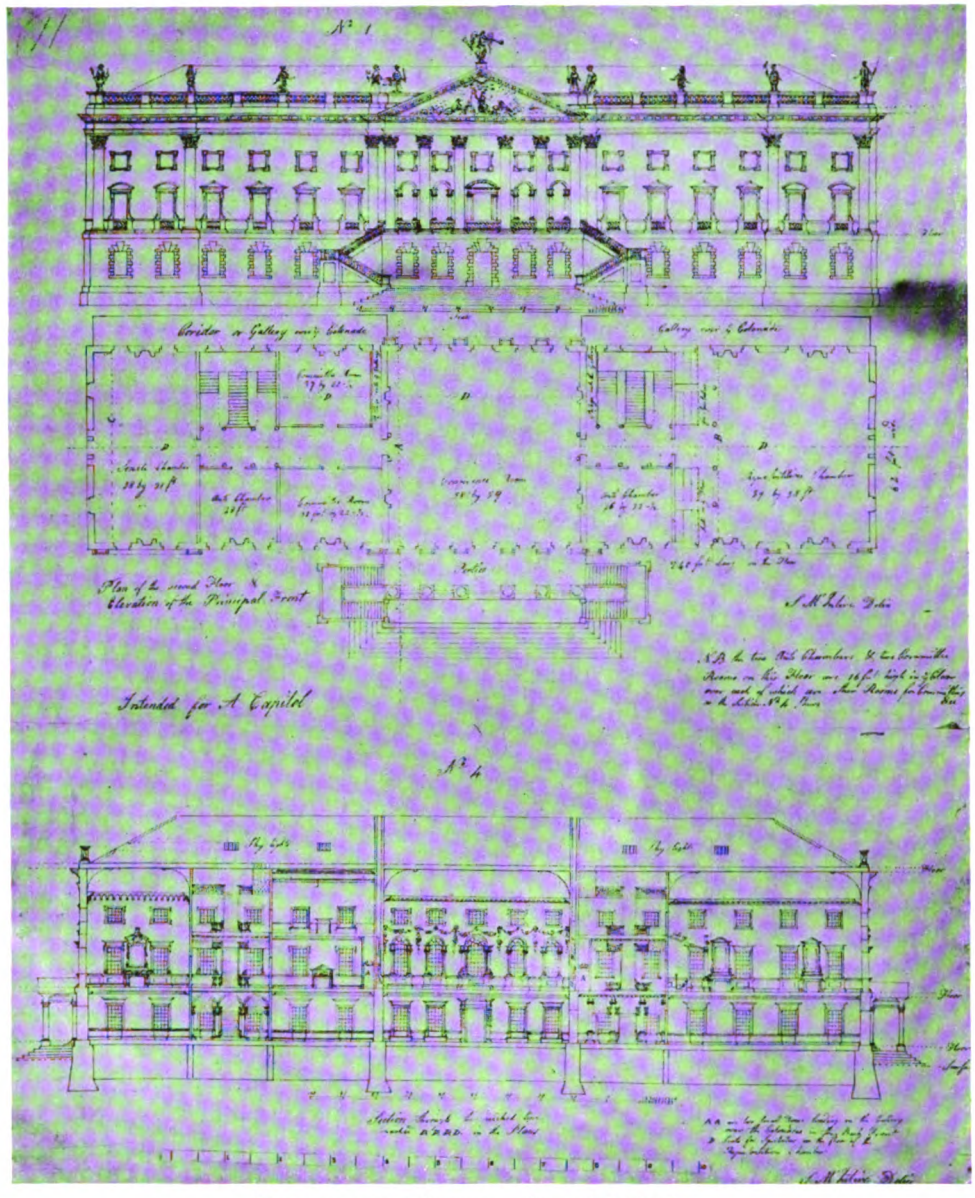
The Commissioners' reply[2] is also interesting as revealing an initial presumption that few native designers could hope to compete with the contestants of foreign training:

City of Washington
4 July, 1792

Sir:

We had the pleasure at our meeting the 2d instant to receive your favour of the 14th of last month with Mr. McIntire's plan for a capitol. The choice out of those which may be proposed, and there are several already come to hand, is with the President. Mr. McIntire's will be laid before him; from the cursory view we have taken of it, we think it not without merit. You may be assured, we have a sensible pleasure in seeing our Countrymen contending for the prize in architecture, which would be still greatly increased by a well-founded decision in favor of some one of them. We beg leave, Sir, to return you our thanks for your encouragement to Mr. McIntire's attempt

[1] "Letters Received by the Commissioners," No. 101, vol. 2.
[2] "Letters of the Commissioners," vol. 1, p. 98.

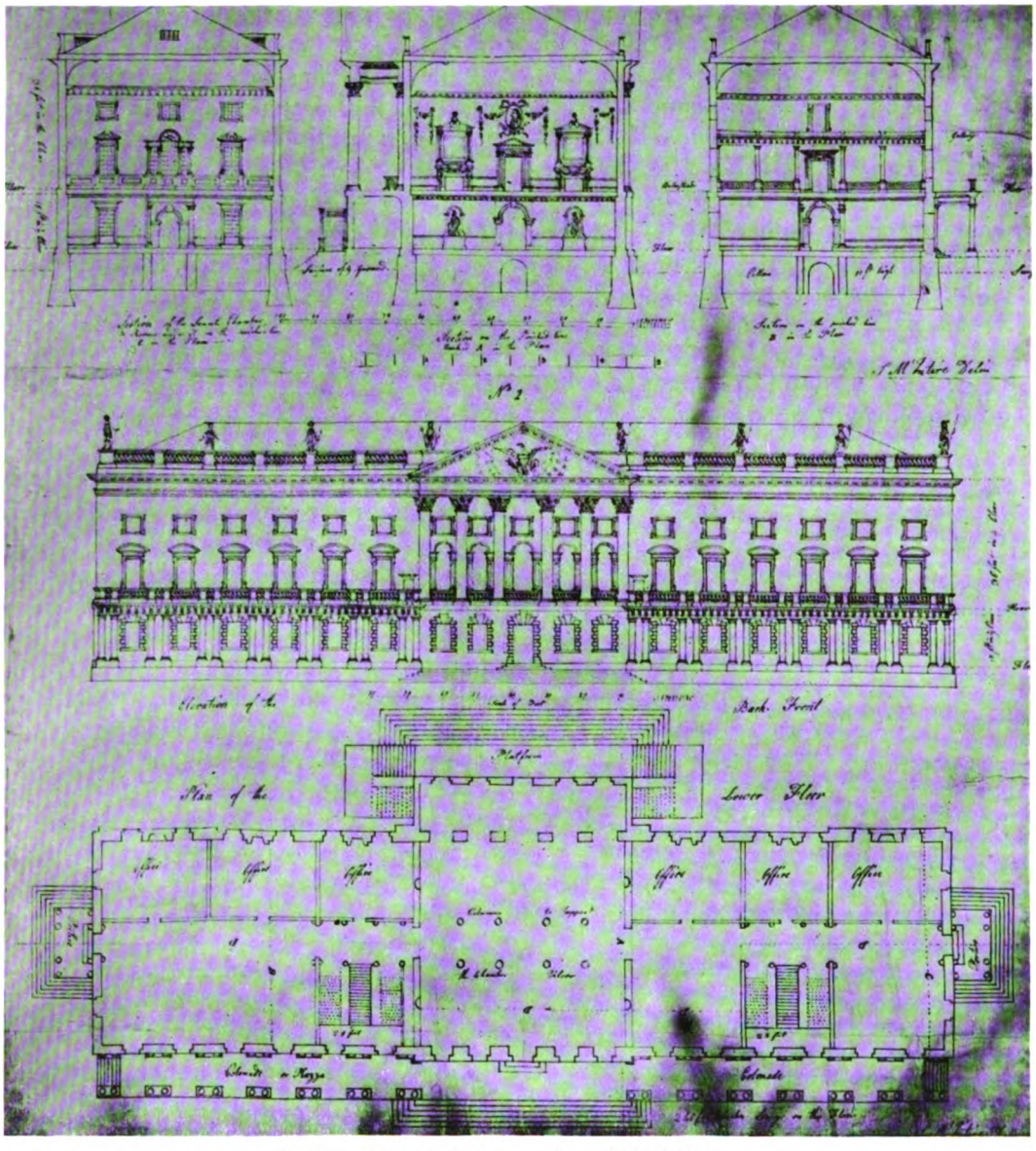


DESIGN FOR THE CAPITOL.—Samuel McIntire
From the original drawing in the possession of the Maryland Historical Society

and the trouble you have taken to communicate the design to, Your, &c.

TH. JOHNSON
DD. STUART
DANL. CARROLL

In the design itself McIntire put the best of his hitherto acquired knowledge and of his thought. Without departing essentially from his current style, he rose to the new heights required by the subject in largeness of conception, monumental quality, and richness of detail. Aside from the fair general solution of the problem in plan, to be discussed later with others, it presents an exterior treatment of great dignity, employing the favorite academic scheme of a tall order above a basement story. The principal front has a five-part division: a central portico of six free-standing Corinthian columns, approached by balancing flights of steps; end pavilions marked simply by pilasters and a slight break in the entablature and basement lines. The "Back Front" has a central pavilion only, of six deep Corinthian pilasters, but before the basement of the long wings run

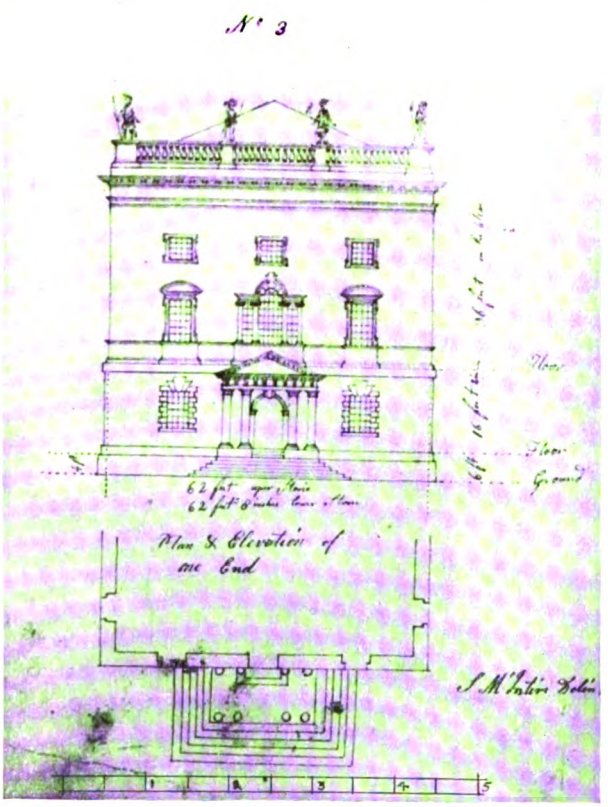


DESIGN FOR THE CAPITOL.—Samuel McIntire
From the original drawing in the possession of the Maryland Historical Society

colonnades of coupled Doric columns. The broken window architraves, their tops pedimented in the main story, the eaves balustrade, the small porticoes of four columns at the end entrances, the Palladian windows over them, are all features characteristic of McIntire's earlier designs.

Although the sense of form is thus fundamentally the same as in his work hitherto, the breadth of treatment betokens an inspiration for the ensemble which Langley's "Treasury" of details could not have furnished. For this inspiration, indeed, it seems that McIntire went to a book outside his own small library, James Gibbs' "Book of Architecture" (1728). Plate 41 of Gibbs' work shows façades strikingly similar to McIntire's in general composition and identical in a great number of details. Like McIntire's "Principal Front," Gibbs' elevation similarly lettered has a pedimented central motive and shallow end pavilions of two bays, framed by pilasters, all in the Corinthian order, and with the entablature carried the full length, both novelties in McIntire's work. McIntire, like Gibbs, has a free-standing portico on one side, an engaged frontispiece on the other,

although he places the portico on the principal face instead of on the garden front. He also adopts throughout the window scheme of the garden front: pedimented enframements, triangular and segmental, in the principal story; architraves with ears top and bottom in the upper story; rusticated quoins in the basement. As his basement story is higher, however, and not rusticated throughout, he takes his detail for these last from the rusticated upper windows of Gibbs' other façade. McIntire's great exterior



End Elevation for the Capitol.—Samuel McIntire
From the original drawing in the possession of the Maryland Historical Society

flights of steps are composed from the two schemes shown by Gibbs, whose rear terrace, with its balustrade of coupled posts, may have suggested McIntire's gallery.

The idea of increasing the four columns of Gibbs' portico to six may have come either from other plates in the same work or from Ware's "Compleat Body of Architecture" which was another of the books left by McIntire at his death.

The interiors of McIntire's design are exclusively rectangular, with coved ceilings, and with their architectural treatment confined to cornice, dado, and enframements of doors, windows, and fireplaces. For these his accustomed manual, Langley's "Treasury," furnished abundant material, much of it, though not all, itself borrowed from Gibbs. McIntire seems scarcely to have gone back to the source, and we see in the great chimney-pieces of the Conference Room, for instance, features taken literally from (Plate 92). The wealth of carving and sculpture shown reveals the gift which was to make McIntire preëminent in those fields, although its character is still that of Georgian luxuriance rather than the Adam delicacy of his later ornament.

The diversity of sources from which the self-trained architect was constrained to derive his motives did not prevent him from welding them into a consistent whole, of which no small part of the merit is his own. This was made possible not only by the cohesion of style in his prototypes, but by the personal gift of the designer for decorative composition and harmony of proportion. These qualities may be seen especially in the rear façade, the end, and the great wall of the Conference Room—which moreover are just those parts of the design which are most his own. The author's inexperience appears in the handling of certain difficult problems; for example, the relation of the pavilion treatment of the principal front to the unequal size of the two legislative chambers behind. The careful thought given to every feature, however, is revealed by the perfect agreement of the different drawings, the number and choice of sections, as well as by the correctness of minor axial relationships in the façades. All told, in spite of its defects, the Commissioners might have done far worse than to favor the design of McIntire. Of their relative preferences among those eliminated at the first judgment we have no record, but that McIntire's scheme did not hold its own in their eyes with Hallet's temple is sufficiently explained by its lack of a dome or a peristyle, the two features which at that time were special recommendations.

The further evolution of McIntire's art to the time of his death in 1811; his adoption, under the influence of Bulfinch's innovations, of the Adam style which he made so brilliantly his own; his work in sculpture and decoration, must be left for fuller treatment elsewhere.

The Architectural Profession in the Present Day

By RICHARD WALLACE TUDOR

Introduction

IT must be evident to anyone who is at all familiar with the practice of architecture and that background of experience and formal education which goes into the development of the architect, that a fairly clean-cut divergence in interest has arisen between the so-called "principles" of architectural practice and the so-called "principles" underlying modern business enterprise. It is likewise evident that out of this divergence in interest something closely akin to a conflict has arisen.

No one can very well deny that the inquiry which is now being conducted by the architects here and in other countries with respect to their status and their business methods, arises out of a realization that the position of the profession has become somewhat precarious. Something in the nature of a doubt as to the future of the profession has come to occupy the place of a certain assurance which prevailed in the profession but a few years before the war.

Before the War

In the days immediately preceding the war, as now, a vast number of buildings came into existence without the aid of the architectural profession. Some estimates place the volume of building erected by builders and businessmen without the services of anyone especially trained by experience or otherwise to perform that particular kind of service, as high as 90 per cent. The exact percentage erected in recent years without the aid of the architectural profession, however, has no material bearing upon the point in question. The number of buildings so erected is notorious; this statement is borne out by an examination of the kind and quality of that great mass of structure, both urban and rural, which make up our material environment.

During that period immediately preceding the war, the profession was young, relatively speaking, and was primarily engaged in formulating its canons of ethics, schedule of charges, and methods of procedure, both as regards individual practice and the Institute. It was particularly intent upon more firmly establishing its status in line with a rather definite preconceived concept of what constitutes architecture and the services of the architect. Thus intent upon, and one might say exclusively engaged with, the problem of more firmly establishing its status in rigid conformity to a concept of a bygone age, the profession, as represented by the Institute, paid relatively little heed to the fact that in failing to provide architectural service in connection with *all* buildings, it was failing as a profession to meet the problem at hand.

Building Without Architects

That the majority of all structures should be built without architectural service was accepted "as a matter of course." All of those secondary structures in the great mass of building, erected by speculative builders, small contractors, and businessmen, were not deemed worthy of serious consideration; so nothing was done about it.

But it appears, from no more than a casual examination of buildings erected through such agencies, that enterprise of this nature was highly profitable. Businessmen are particularly observing where possible profits are in view, and the fact that speculative building seemed highly profitable was by them observed, particularly by those who "operate" in the larger fields of business enterprise. As a result, in the course of time, building operations of a speculative nature, instead of being confined to the small speculative builder and small promoter, came to be regarded as a legitimate and profitable field for the larger and more aggressive forms of business enterprise.

The Present Drift

And so, while the situation is quite similar today, in that the vast majority of buildings are now erected without the services of the architect, there is a difference. The larger and more aggressive business organizations are gradually taking over not only the operation of financing and constructing, but also are performing the architectural services involved. Nor do they confine themselves to the small field previously occupied by the speculative builder. They are already entering a field previously marked off by the architectural profession as its own sacred area.

While it may not be quite accurate or fair to say that the situation thus briefly suggested is what really animates the present inquiry into the affairs of the profession, as referred to above, it is probably fair to say that it was no less than chief among the conditions which animated the inquiry, whether openly acknowledged or not.

Therefore it would seem that a most pertinent line of inquiry to follow would be that which might possibly throw some light upon what is most likely to be the outcome of the present drift of affairs. Of course, anything in the nature of final conclusions from such an inquiry would be largely in the nature of a guess; on the other hand, if an inquiry were properly conducted and all matters of importance were taken into account, the conclusions need not necessarily shape themselves into the form of a blind guess, as seems to be characteristic of the present state of the inquiry.

The Modern Kings

It is not to be wondered at that the architect of today stands somewhat bewildered in a world dominated by machine technology, business enterprise, and capitalistic endeavor, for he occupies a curious position—a conspicuously curious position.

"The material framework of modern civilization is the industrial system, and the directing force which animates this framework is business enterprise. To a greater extent than any other known phase of culture, modern Christendom takes its complexion from its economic organization. This modern economic organization is the 'Capitalistic System' or 'Modern Industrial System' so called. Its characteristic features and, at the same time, the forces by virtue of which it dominates modern culture are the ma-

chine process and investment for a profit. . . . The businessman, especially the businessman of wide experience, has become a controlling force in industry, because, through the mechanism of investments and markets, he controls the plants and the processes and these set the pace and determine the direction of movements for the rest. . . . Upon him and his fortune centers the abiding interest of civilized mankind. . . . For a theoretical inquiry into the course of civilized life as it runs in the immediate present, therefore, and as it is running into the proximate future, no single faction in the cultural situation has an importance equal to the businessman and his work."*

In this framework of modern civilization does the architect understand the conflict as regards the production of buildings as conceived by him, on the one hand, and by business enterprise on the other? Do architects who give direction to those formulated professional statements that emanate from architectural societies, and who give direction to architectural education, understand what really dominates and gives direction to the activities of modern society? Is there not on their part a holding back, a very definite tendency to cling to a certain point of view with respect to what constitutes architecture and to methods of building which prevailed some centuries past? To the onlooker it would appear that the profession now occupies a position which might be expressed as the third-line trenches in the conflict which has been growing for a century or more between "modern business enterprise" and the instinct of workmanship. The architectural profession is the last force left in the trenches. Its bewilderment at this present juncture is very largely due to conditions which have developed in the very recent past, and which find a more complete expression in the present.

Speeding Up

About a score of years ago, if we may judge by the attitude of the profession at that time, something like an understanding of the functions of the profession and the services it could properly perform was slowly developing; a so-called "better taste" in building was to be observed. After a long period of remarkably ugly and stupid building, it appeared that architecture was to take on a better character; the profession was to be recognized and recompensed. That was the period of rapid business expansion in America—the formation of great combinations and the wholesale production of things. It was at this juncture that the general contractor stepped in and took over a large part of the work which had been formerly performed by the architect as a part of the building service he rendered. Relatively, these were times of great prosperity and equally great optimism; the architect was swept along with the spirit of modern business enterprise.

But further and important changes have taken place within this brief period of the recent past, and today the architect finds that that beneficent spirit of business enterprise, upon which he looked with favor and to which he looked to carry him along toward more magnificent architectural achievements, bids fair to be his undoing. Within a few years, from a position of relative security and a relatively beneficent rating which was coming to be assigned to his services, he suddenly awakens to a realization that his hopes are possibly to be rudely shattered by the ever-broadening activities of businessmen who are aggressively engaged in the modern business-like activity of gradually taking over the architect's business as a part of the act of gaining control over all production. In the meantime the architect and his abilities are being made use of as mere adjuncts of business in this work of relieving him of his means of livelihood. This act is in direct line with the general policies of business; it expresses the drift of things in modern times and is parallel with that act of business which once stepped in and took over, in a wholesale way, the work of the craftsman.

*"The Theory of Business Enterprise," by Thorstein Veblen. Charles Scribner's Sons, 1919.

Art or Business?

Realizing vaguely that some sort of action should be taken by the profession if architects are to continue to function in the accepted meaning of the term, the organized profession institutes investigation of itself, its organization, and its activities. It debates the question: Is architecture an art or a business? It wisely suggests reforms within its own body and advocates campaigns of propaganda and advertising to stimulate public appreciation of both art and the value of architectural services by members of the professional body.

From the debates, it does not appear that there is other than confusion in the minds of the profession in general. Above all it does not appear that any need whatsoever of reform in practice is deemed important to a large and influential group of architects, particularly those who have come into a remunerative practice. And among the majority who advocate changes, those seriously considered relate almost exclusively to matters of little importance.

If one may generalize in a field where the discussion revolves around details of organization and practice, the opinion prevails that the results desired may be achieved most readily (and with the least effort) by propaganda and advertising aimed at bringing the public to that point of view which reveals the nature (and the value) of art and architecture as it obtains in the academic atmosphere and sheltered regions of the studio and in the mind of the old-school practitioner who has built a remunerative practice by catering to the pecuniary canons of taste established by modern society.

This prevailing attitude on the part of the profession, particularly among those who are generally rated as "well established," fails to take into account two extremely important matters. It is assumed that the point of view of the profession will be accepted by the public once the matter has been fully explained; that with the value of art and architecture once demonstrated, and the peculiar service of the architect made perfectly clear, modern business enterprise will make an exception in the case of art, architecture, and the architect, and will stand off. Now it happens that an idea or a program to be accepted generally must be one which coincides with what the public deems of prime interest to it. Any appeal to business interest must be made largely upon the ground that the interest of business enterprise will be the better served; in the same way, it must be made clear to the common man that he has something to gain by responding.

THE ARCHITECTURAL PROFESSION IN THE PRESENT DAY

Building for Profits and Wages

What may be termed the architect's point of view as to what constitutes architecture, has come down from certain historic periods of generally acknowledged architectural excellence in which the forces that actuated building were of a cultural nature for which we find no counterpart in the present day. Therefore, any considerable emphasis upon the value of tradition as to "forms" or manner of building is not at all likely to be understood by those engaged in building for speculative profit or for wages. That the emphasis placed upon forms by architects is not understood is notorious, of course. To individuals engaged in building enterprises, both directors and workmen, the high rating assigned by architects to certain forms and certain methods of construction appears utterly beside the point, for neither the directors of business for profit nor the workman engaged in building for wages can see precisely in what way he is to be benefited by a general adoption of the kind of architecture which is held up to him for his admiration. And as a matter of fact, that which the profession is always so insistent upon emphasizing as of such high esthetic value, particularly that work which is of a grandiose nature,—exhibitions of the work of our schools of architecture,—is quite beside the point. It can have no possible interest for those occupied in business enterprise for profit, or the man working for wages. It is not easy for either to see precisely what is to be gained by more of it. Architecture of the sort emphasized does not, as a general condition, point the way toward greater profit from the view point of business enterprise; and, so far as the common man is concerned, all of it is quite outside his field of contact in so far as it relates to the affairs of his life. Any hope that the spirit of business enterprise will stand off, that it will not seek completely to dominate and control the practice of architecture is a forlorn hope, for it must be apparent to anyone who has observed the drift of things in the recent past that there is not the slightest reason for assuming that the practice of architecture will stand immune. It *is* the aim of business enterprise to dominate and control all production, and so why should it be assumed that the production of buildings may be carried on in the immediate future upon other lines than those laid down by the forces which are gradually gaining control over all production?

Business and Art

But one may insist that art and architecture are matters which fall outside the realm of business enterprise; that business enterprise cannot produce art. Architecture is art and therefore why worry? Here is revealed how we fail to come to grips with the actual situation. Modern business enterprise, in control of modern machine industry, aiming always at quantity production, has not been able as yet to produce things of that quality of design and finish which are so highly prized by those who can afford to buy whatever carries the mark of these qualities associated with the architecture of the past and of handicraft industry. And since those products of creative endeavor which occasionally emerge are bound to enter the market in competition with the salable wares produced by strictly business enterprise, it naturally follows that, from the viewpoint of modern business enterprise, the situation may be most advantageously treated by killing this competition.

Now it happens that buildings fall well within the category of the products of modern business enterprise, and hence it is that the architect is confronted with a very strong and aggressive competitor. The outlook for architecture, using the term in its generally accepted meaning, is not bright. What character of buildings would result from a condition in which the design and construction was wholly within the control of modern business enterprise is not easy to forecast. It may soon be possible to gather general ideas under this head through a survey of the buildings which comprise those areas given over to industry, and business in which no "architectural" influence may be said to have penetrated. What kind of architecture might be developed by modern business enterprise were it to take over the function of the architect, does not fall strictly within the field of this inquiry, and is queried merely in passing. The point of interest is—what is likely to become of the profession of architecture in the near future?

Architect or Businessman

The architect may change his point of view to correspond to that held by the modern businessman. Of course such a change would carry with it a modification of the technique of practice. Should the architect so change, it is more than likely that the result, as expressed in buildings, would eventually approximate the result now to be observed in "speculative building." This does not imply that there would be no further demand for the services of those needed to satisfy the demands arising out of "competitive spending," but rather that the activities of the profession would be curtailed in such a manner as to cover this field alone.

The Future

The architect may attempt to hold firmly the position which he now occupies, in which case he is more than likely to fail, particularly if he holds to that group of ideas that has worked for the establishment of the position he now holds. Not only is he likely to fail so to hold his position, but he is likely never to have anything to do with that great class of buildings which now come into being very largely without the aid of his services. All this is likely unless—and this of course is the vital question to consider—a new grouping of forces should come about in such a way as to seriously modify the current of modern business enterprise as it runs, particularly if that modification should be in the nature of changing the animating forces of business enterprise from investment for profit and the charging of all that the traffic will bear.

It would be interesting and undoubtedly profitable to continue this line of inquiry a step beyond. It might possibly reveal that the major matter, which should now be considered by those engaged in the discussion of the internal affairs of the architectural profession, would be that which had to do primarily with the working of a change in our economic institutions.

A Bricklayers' Guild Scheme for Manchester (England)

Says the Manchester *Guardian:*

"Not for the first time Manchester witnesses the birth of an industrial movement that may become historic. With the consent and approval of the local branches of the Operative Bricklayers' Society, a group, to be known as the Building Guild Committee, has made a tentative offer to the Manchester City Council to build 2,000 artisan houses. The proposal is based upon the practical facts of the situation, but is also motived and colored by the guild idea.

"The practical side of the problem can be easily stated. The men have a monopoly of their labor power and seek to apply it equally to their own advantage and to the public good. Within a measurable period of time there are probably 50,000 houses in Manchester to be built or rebuilt. There is an immediate and pressing demand for 20,000. The bricklayers, in coöperation with the other organized workers in the building industry, claim that they can build quicker and better under conditions free from profiteering. It is their contention that under their own democratic control they will work in an atmosphere of goodwill and sane discipline that will induce good and speedy workmanship. The resolution unanimously passed by the District Council of the Union, all the delegates present voting, may be quoted, as it is of more than passing interest.

"That this District Council of the Operative Bricklayers' Society, recognizing the urgent need for artisan houses in the No. 1 area, and having carefully considered the aims and objects of the Building Guild Committee, hereby undertakes to render all moral and material support consistent with the rules of the Society.

"It further commends the proposals of the Building Guild Committee to all other trade unions connected with the building industry, and instructs the secretary to place the proposals before the branches of the Building Trades Federation at the earliest possible moment.

"So much for the first step. The second was taken on Tuesday, when the Manchester Branch of the National Federation of Building Trade Operatives met. The whole of the building trades were represented at this meeting, and the following resolution was passed:

"This delegate meeting of the Manchester Branch of the National Federation of Building Trade Operatives, having considered the proposal of the Building Guild Committee to tender for and accept contracts to build artisan houses in the interests of the public and under democratic control, pledges its coöperation and support in every possible way in accordance with its rules. It also heartily commends the scheme to all labor organizations, political and industrial, throughout the country.

"The present position would seem to be that the Housing Committee of the Manchester City Council, although willing to proceed, must wait for the final form of contract approved by the Government. So far as Lancashire is concerned, this is in the hands of Sir Thomas Robinson, who is acting for the Government as a sort of Super-Housing Commissioner. His immediate concern is to find a sound basis of cost, and he has had a staff of accountants working overtime at the problem. Their researches, we understand, are almost at an end. With estimates upon which he can rely, Sir Thomas proposes to arrange contracts upon a system of cost plus percentage for net profit and overhead charges. He then hopes to keep in close touch with all concerned, overcoming difficulties as they present themselves. His attitude to the Building Guild Committee is one of friendly neutrality. He has had two long conferences with this Committee. He recognizes that, subject to proper legal liability, the Building Guild Committee is entitled to tender on equal terms with the associated contractors. The Committee asks for no preferential treatment.

"There has also been an informal conference with responsible members of the Housing Committee, when certain practical difficulties were frankly discussed. The first is the question of what would constitute a legal entity. Apart from the general legal position of the trade unions, the Operative Bricklayers' Society is by its rules forbidden to engage in trade. Probably the other trade unions affected are in a similar situation. This is what is meant in the resolution previously quoted: 'Render all moral and material support consistent with the rules of the Society.' The Building Guild Committee proposes to tender for building contracts, either by a nominee or by assuming legal powers and responsibilities as a partnership.

"Provided the support of the trade unions is given, particularly in ensuring an adequate supply of labor, the form of the contract is of secondary consideration. But arising out of it is the question of legal guarantees. It is important that there should be no misconception on this point. The representatives of the Building Guild Committee were asked if they would submit to the usual guarantees and sign the usual bonds. Their answer was that they were not in essentials in the same position as the contractor. A builder, on signing a contract, may properly be asked to give security, because his financial stability is the essential thing. He must have financial resources, because he cannot control the supply of labor. On the other hand, whatever its financial arrangements, the Building Guild Committee has an ample supply of labor, perhaps even a monopoly of it. Therefore, they argued, the nature of the guarantee required from them is not primarily financial but fundamentally a guarantee that the labor would be forthcoming and the houses built.

"The question, in fact, raises an issue which has recently been fully discussed in guild quarters—the possibilities of group credit based upon the power to produce, in contrast with bank credit based upon the purchasing power of gold. What has been theoretically discussed for two years suddenly becomes a living, practical issue. Put in plain terms, the Building Guild Committee argues, a financial bond imposed upon productive capacity might operate so harshly as to defeat the main purpose—namely, the speedy and efficient building of houses.

"The Housing Committee representatives to some extent recognized the validity of this argument, even though they were not convinced. They therefore asked that evidence should be produced to prove that the Building Guild Committee had the assent and coöperation of the trade unions concerned. This was promised within a week or two. If the private assurances already received are a criterion, there can be no doubt of solid trade union support.

"The constitution of the Building Guild Committee is a blend of the practical with the theoretical. Whilst the immediate purpose is to build houses and so relieve the

present congestion, the ultimate aim is a National Building Guild. The present intention is to confine the membership of the Building Guild Committee to the smallest number consistent with representation upon it of all the trades concerned. Probably ten or a dozen for Manchester would suffice. As the movement extends to other towns and districts, similar committees would be formed, but, it is hoped, linked up with the parent body, an administration common to all being desirable if not necessary. On this committee, in addition to the trade representatives, would sit one representative from the administration and one from the technical, architectural, and survey. A National Guild, of course, comprises every function, manual and non-manual, and it is sought to make the Building Guild Committee a microcosm of the national organization. In regard to the technical services, steps have already been taken to secure the best talent. No contractor can obtain better men than those already approached by the Guild Committee.

"It is in the labor department that we shall find the widest divergence from existing practice. Here democratic control must prevail from the chief director down to the most obscure job. It is specifically set out in the original memorandum, to be subsequently embodied in the formal document constituting the Committee, that the direction and discipline of the whole labor force shall be confined to men in good trade union standing. Whether the Committee shall appoint the foremen, or whether they shall be chosen by their colleagues on the site, is of no great consequence; the important thing is that the work shall proceed with the assent and good-will of the workers concerned.

"The theorists will naturally be interested in the preparations for the future National Guild. They are simple and comprehensive. It is recognized that mistakes will be made, and it must be possible to rectify them. The main points may be briefly summarized:

"1. All plant and material and other tangible property shall be vested in three trustees.

"2. After two years, if the building industry as a whole shall decide to form a National Guild, but provided such National Guild shall include all and every grade in the industry, the trustees shall transfer all property vested in them to the properly constituted Guild authority. All disputes shall be referred to the Chairman for the time being of the Parliamentary Committee of the Trade Unions Congress, or his nominee, and the Minister of Labor, or his nominee.

"But why, it may be asked, drag in the Minister of Labor? The answer is that the state is directly interested. It is sound Guild doctrine that the state shall own all material and assets, holding them in trust both for the community and the Guilds. The peculiar property of the National Guild is the organized monopoly of its own labor-power. Property is rightly vested in the state; control with the Guilds. This is the fundamental difference between the national guildsman and the syndicalist.

"3. If after two years a National Building Guild shall be constituted, the Building Guild Committee shall transfer to it all existing contracts, and either be dissolved or absorbed into the national organization.

"As we understand the position, however, the Building Guild Committee is preoccupied with more immediate projects. It wants to apply its available labor to building artisan houses. Even though it frames its objects in ambitious terms, impelled thereto by the logic of the facts, it is asking that it should be given a trial; that its offer should be received as a public-spirited and unselfish attempt to ease the acute housing situation."

[NOTE.—The above statement, read in connection with Mr. Cole's article on the proposed National Building Guild for England, published in our issue for September, 1919, will indicate one important trend of industrial development in that country.—EDITOR.]

The Bricklayers' Party

There was an unusual party held in Philadelphia on Feb. 13, 1920. Pennsylvania Local No. 1 of the Bricklayers' Union asked Abel, Boyd, Bright, Medary, Sellers, and Zantzinger to meet with them and talk bricklaying. I never had less hesitation in accepting an invitation. In the midst of a snowstorm so furious that all street traffic was at a standstill, Zantzinger and I zigzaged on foot ten long city blocks, almost blinded by the stinging ice pellets, before we arrived at our destination. I think that we all felt—I know I did—an immense sense of virtue in having kept our engagement in spite of the frightful weather. But our hosts didn't seem to take this point of view at all. One of them remarked casually that it was a pretty rough night, and then the meeting was declared open.

These men wanted us to teach them how to read plans; they wanted to know what the different symbols meant with which we adorn our blueprints; how to lay out the work and construct a window-opening from the drawings. I had never given very much thought to the matter, but I was astonished to learn from the men themselves that not one of them ever had anything but a faint idea as to what the architect was driving at.

In Philadelphia, the general contractor is the carpenter and his foreman is in charge of the work. The master bricklayer accepts this situation as quite normal, and the bricklayers are discouraged from meddling with things which do not concern them. Anyone who has ever been closely in touch with the actual processes of building knows how effectual are the methods of discouragement employed by workmen or those over them. These men facing us, none of them very young, some of them well along in life, were totally ignorant of their art. They asked us to teach them what we knew. They spoke of the interest they would like to take in their work, of the imbecility of a system which demands that a certain number of bricks be laid up each day irrespective of quality of workmanship. Their mortar is prepared for them, they have nothing to say about it, and ofttimes, in order that the contractor may "skin" the job, it is delivered to them in such a condition that good work is out of the question. Throughout the evening there was not one word said, there was not one question asked except in the line of making the job better. Over and over again they asked, "Can't you architects fix it up for us so that we can have a little more interest in our work?" Their complaints about the way their apprentices are used by the master bricklayers and all their other griefs were of lesser consequence than the deep resentment they all felt against the system which

stultifies every effort toward self-expression in their art. "We want to make the picture" was the expression used. "You tell us what you want and we'll make it."

It is true that they were talking in terms of the ideal. In practice some of it might not work out, but was it not worth while to fight one's way through a terrific snowstorm to spend the evening with men who talked in the purest and noblest language of artists? "What can we do, and what can you do to help us produce better buildings?"

This request could not go unanswered and it was arranged that Mr. Abel should conduct a weekly class on plan reading at the Union Headquarters. It cannot be foreseen just what this will lead to, but knowing the spirit which animates the teacher and the pupils, something really worth while should be achieved.

With all due allowance for the difference between aspiration and realization, we came away from that meeting feeling that we had learned far more than we had taught. Our feeling was that it would be a crime to allow this great moral force to remain unutilized. Must we ignore it and continue all our bargaining on the brutal basis of the number of bricks laid regardless of the quality of the product?

The problem is to give these men an interest in their work. That is what they ask for and with some imagination, good-will, and mutual forbearance, it can be realized! Let them feel that they are at least to some extent artists, that they are creators and not mere machines, and some of the evils connected with wages will perhaps be less difficult of solution.

JOHN IRWIN BRIGHT.

The Draughtsman's Page

GEORGE BAIN CUMMINGS, Associate Editor

REGARDING DRAUGHTSMEN'S ORGANIZATIONS

The following communication has been received:

TO THE EDITOR OF THE JOURNAL:

Dear Sir: I presume, now that the New York Chapter of the A.I.A. has taken somewhat official cognizance of the matter of draughtsmen's organizations, as indicated in the January issue of the Journal, the subject is open for further discussion.

Judging by the announcement of this meeting, one gathers that there is a woful lack of understanding on the part of the great majority of the profession as to the fundamentals involved. The contrast between Mr. Ackerman's genuine understanding of this matter, as indicated by his praiseworthy communication in the same issue of the Journal, and that of the great majority of the New York Chapter, as indicated by the proceedings at their recent meeting, brings forcibly to our attention the gap existing between the many and the almost insignificantly small number of farseeing individuals.

To have the term "closed shop" enter even in the slightest way into any discussion of the matter augurs badly for any harmonious solution of the problem of the relationship between architect and draughtsman—and that a readjustment of that relationship is necessary we may as well admit once and for all. The term indicates a diseased psychology similar to that existing in other fields but which one would expect not to find in our profession. It presupposes that a condition will be induced by the mere assumption of its existence by the architect; this assumption indicates a defensive attitude on his part, instead of one positive and constructive. The initiative for the readjustment should have been taken by the architect and not by the draughtsman, since that which the latter can offer as his contribution in the field of architecture requires a proper condition under which his contribution can be made; and this condition it is up to the architect to create; the prerogatives involved have been tenaciously held by him, but these he must make up his mind to part with, in order to create for the employee the "condition in which" he can put forth his best effort.

The direction toward the solution has been given by Mr. Ackerman in his communication, if only the profession takes the hint. If, however, as is to be expected in view of his present attitude, the architect takes but a passive interest, holding to his time-honored forms, he will unquestionably create that which now exists in other fields in this country, namely, an organization of employees in the form of craft and class unionism, acting as a spur to the employer. For the architect to sit tight and wait for developments among his employees is tantamount to admitting a holding back on his part and giving up only under duress, thus rightfully creating in the employee, and through no fault of the latter, a distrust of the employer.

Fortunately and unfortunately the real issue is far above the monetary one, although it is expressed in economic terms: fortunately, in that through the proper solution of this issue there will be created just that condition, professional and esthetic, which a genuine understanding of our field requires as essential; unfortunately, in that, while the architect may always show a willingness to part with a certain amount in the form of dollars and cents as a palliative from moment to moment, the things he seems unwilling to part with are his certain ancient prerogatives as an employer, which constitutes the real issue, and raises it above the monetary one. The monetary basis considered by itself diverts us into mistaking the means for the end, and so we are led into taking cognizance of the condition in terms of the machine. The real issue must be considered in terms of human values.

Whether the employee sees this or not makes not a particle of difference. Furthermore, the employer should not tend to take advantage of a probable ignorance of this subject on the part of the employee. The latter may not see the point—and perhaps some of those who do may be reticent in expressing their views, not wishing to be called by prevailing names with which they were not christened. Or he may see the problem only as an economic one. But, irrespective of whether the employee perceives the ultimate goal or not—and he will continue to agitate for this goal,

even though unconsciously, and in spite of his probable present lack of knowledge regarding it—the employer, in order to prevent complications which will arise out of a tense condition, should not blind nor fool himself, but should tackle the problem with unbefogged understanding and create a *modus vivendi* for accomplishing its solution. He will find that this *modus vivendi* will necessitate a reorganization of his present societies and office arrangements which will not only solve the problem of his relations with his collaborators—for that is what his employees are—but it will show him the direction toward a proper solution of the other difficulty he is now laboring under, namely, his "scope" professionally. Furthermore, in so solving properly the problem in his own field he will find himself taking the place he should as a member of a profession acting as an example to other fields in the general reorganization of society along different lines of valuation, which will cease to treat labor as a commodity, thus dehumanizing it. He will become fit to exercise his vocation as architect, namely, to interpret physically the social interrelations between man and man.

The real issue involves neither more nor less than the fundamental human rights of each individual, as one of a group of collaborators in any given field, based upon human valuations, although at present economically expressed. The form and spirit any organization of draughtsmen will assume depends upon the readiness with which the architect will be willing to part with his time-honored prerogatives. If he insists however on sitting tight then it will be thanks to his employee and not to him that the profession will become what it should be in the society of the future, although the way will be a devious one.—J. Moscowitz.

It is undoubtedly true that the reason for the present tendency among draughtsmen to organize lies in the historic attitude of the architect—employer toward his employees. This condition is all the more striking because the average draughtsman is a man of more than average culture, and the idea of standardized effort and remuneration is repugnant to him. Surely a fairer field for the cultivation of the true professional spirit does not exist. If the field has not been cultivated, if the opportunity has not been utilized, is it not the fault of the architect? For, as our correspondent says, the initiative has always been with the architect.

And let us not lightly consider the situation. Here is a vocational group whose roots extend to the beginning of things, existing for the purpose of supplying the elemental need of shelter, organized around the professional idea of service to society. And this group is not properly training the coming generation! Else would the coming generation be agitating now for the opportunity, for the necessary conditions, for self-expression!

That is what they are after. Let us not mistake the symptom for the disease. The men may talk in terms of more pay, better hours, decent procedure in hiring and firing, which are simply aspects of the essential proposition of a square deal—a human deal. But fundamentally they feel the urge toward self-expression—the creative impulse.

Shall we be so blind as not to perceive the real problem? Shall we now, with the tide rising inexorably, be still smugly complacent, or mildly interested, or slightly uncomfortable, over the situation?

My fellow-men and professional brothers, if we are to preserve our profession as a profession, if we are to render a worthy account of our stewardship to society, let us meet the challenge of the day squarely. Let us strive to see clearly and think truly and act bravely!

Unlock the door—let the draughtsman in.—G. B. C.

The Proposed Joint Registration Law for Architects and Engineers

In reference to the recommendations of a Committee of members of Engineering Council regarding registration of engineers and architects, as published in pamphlet form, I consider it of the utmost importance to architects that it be immediately brought to the attention of the Chapters and the profession in general.

The pamphlet in question contains a "Recommended Uniform Registration Law, to regulate the practice of professional engineering, architecture, and land-surveying." Engineering Council voted to give the law wide publicity in engineering and architectural societies and the technical journals, in order that members of the professions concerned might be informed and discussion elicited to guide the Council in considering this important matter at its meeting in February, 1920. Engineering Council has as yet taken no action upon the merits of the question of the advisability of legislation providing for the registering or licensing of practitioners of the professions named.

The last Institute convention, at Nashville, opposed, and the Institute Committee on Registration Laws does not favor joint laws, and, inasmuch as it appears likely that the Engineering Council will endorse the recommendation of its Committee to introduce and work for the passage of joint laws in many states, I urge Chapter committees to study the subject and to think over the future troubles which architects will obviously have to endure if they agree to place themselves practically in the hands of engineers of all classes and kinds by consenting to joint registration laws.

We especially protest against that feature of the Engineer's report which says that if the Institute model law is put into effect it will prevent anybody but an architect from building buildings. The Architects' Registration Laws of New York state, Illinois, and other states do not interfere with the designing and supervision of buildings by an engineer entirely without an architect. The Institute has been most particular to insist upon that feature of the law; it has discussed it, has kept it before conventions, and that feature has been repeatedly mentioned when referring to the model registration bill issued by the Institute.

We see nothing in the Institute Model Registration Law or in the laws of New York or Illinois to prevent engineers having a similar law, granting those who received their certificate the right to design and supervise buildings, if they so desire, undisturbed by architects. The definition of a building, defining that which the law holds as practising architecture, is as applicable to engineers as it is to architects. Architects do not hold that the construction of buildings by engineers is an encroachment upon their prerogatives.

We are of the opinion that it is impracticable to write a definition of the practice of architecture or engineering which will not infringe on the work of the other profession. To obviate friction, the laws of Illinois read as follows:

"Persons licensed to practise architecture in this state under this Act shall be exempt from the provisions of an Act to provide for the licensing of structural engineers and regulating the practice of structural engineering as a profession approved July 15, 1915, enforced July 15, 1915." The Engineers' Act contains the same exemption.

The Engineering Council law proposes a board of seven members, at least three of which shall be professional engineers and at least three shall be architects; it is proposed that the examination of engineers shall be by engineers and that of architects by the architect members of the board, but, inasmuch as a majority vote can consist of engineers, they can regulate the practice of architecture under a law such as the one they recommend.

We ask the profession to imagine how little architects may have to say about the practice of their profession in any state which adopts such a method of admitting architects to practice. The examination of applicants for registration should not and cannot be alike for applicants of both professions. It is true that both professions design and build, but it is indisputable that the conception of the two professions differs widely and are not approached similarly. The curricula of school courses in engineering differ from the curricula of architectural schools as to training in artistic composition, engineering, draftsmanship, and otherwise.

We are greatly opposed to any possible scheme of registration of both professions under one law and urge that the Chapter officers stir their committees into action and that these be on the alert to learn of the introduction of registration laws and oppose joint registration.

RICHARD E. SCHMIDT, *Chairman*,
Committee of Registration, A.I.A.

A New Type of Building Ordinance

JOHN IRWIN BRIGHT

A recent Pennsylvania state law permits townships of the first class to write their own building laws and to prescribe fire-limits wherein none but buildings of a fire-resistive character may be erected.

Acting under this authority, the Township Commissioners of Lower Merion have had an ordinance prepared by a committee whose members are Messrs. M. B. Medary, Jr., chairman; John Irwin Bright, Paul A. Davis, 3d, Horace W. Sellers, Horace W. Castor, and John Ihlder. Messrs. D. Knickerbacker Boyd and Victor D. Abel were the consultants, and the complete ordinance is now in the hands of the Commissioners.

The law embodies a number of unusual features.

The Building Inspector, to be appointed by the Commissioners, will be required to keep on file a complete list of laws and requirements affecting building in its various phases. At the present time there are a number of public utilities companies, fire underwriters' associations, etc., whose rulings, if not followed, often cause delay and loss to the builder. The existence of various mandatory state enactments is sometimes unsuspected until at some inconvenient time attention is drawn to them by a state official. All this information will be collected and kept in one place at the disposition of the prospective builder.

The keynote of the law is its method of classifying buildings. In the determination of this question the character of their occupancy, or, in plainer terms, their use, is regarded as the index, to be modified later by considerations such as height, size or safety to human life. Materials of construction are divided into seven groups, each graded according to its fire-resistive qualities. Each classification, of which there are six in number, calls for its appropriate grade of materials. The result should be an harmonious design from a structural point of view because, for any given building, the requirements for each kind of material or each subdivision of construction are approximately the same.

The method also greatly diminished the necessity for special rulings, that *bête noir* of building inspectors, architects, and contractors.

The door is left open to inventions and discoveries by the proviso that any material passing certain specified tests may be substituted for any material mentioned. The imposition of present practice upon unknown future conditions is often responsible for serious financial loss to the public, and the way to evade the loss is to allow free scope to human ingenuity.

While demanding in general an improvement in structural methods, the part of the law dealing with the large question of materials and their uses is of a flexibility that will bring about the result at the least possible increase of cost.

In legislating for dwellings, the suburban character of the territory covered by the law was always kept in mind. It has been frankly stated that the ultimate destiny of the Main Line (Pennsylvania R. R.), at least as far as Bryn Mawr, is an unbroken stretch of brick and concrete buildings dominated here and there by tall apartment houses and factories. An examination of all modern cities will show how easily this may come to pass but that it is inevitable is quite a different matter. In the opinion of the Committee it is neither inevitable nor desirable and, in writ-

ing the law, they frankly endeavored to render difficult and even impossible such a lamentable invasion of this beautiful countryside.

Under the proposed measure apartment houses may be built but only of a better and safer type than at present. The crowding together of dark and dismal houses of a flimsy construction will no longer be permitted. All public schools are now erected subject to the requirements of a state law. They are fairly good, but while they could and should be improved in some particulars they are uniformly safer and more sanitary than the vast majority of private institutions. Private schools, many of which are now veritable fire-traps and disease-breeders, will in the future have to be at least equal to the state requirements for public schools.

The choice between the present condition of anarchy or a system based on law is now squarely up to the citizens of Lower Merion Township.

The committee on building construction of the National Fire Protective Association, meeting in New York last week, gave this proposed law the sincerest flattery by adopting for their future policy certain of its main provisions.

An Important Legal Decision Affecting Zoning

The Supreme Court of Minnesota has handed down a decision sustaining the right of the city of Minneapolis to enforce building restrictions in areas set aside for specific residential purposes. Suit was brought to set aside the law of 1915, which provided for restrictions under the eminent domain process. While the law is not perhaps perfect, as to methods of procedure, the present decision affirms the principle of restriction. In this case suit was brought to compel the granting of a building permit for an apartment house in an area that had been set aside for single dwellings. A previous court had ruled against the validity of the law, but the Supreme Court has reversed that judgment.

The decision in question is of more than ordinary moment, sustaining, as it appears to do, the principle of zoning, because it contains an acknowledgment of the forward movement of public opinion; the court, for instance, in its opinion, says: "The notion of what is public use changes from time to time. Public use expands with the new needs created by the advance of civilization and the modern tendency of people to crowd into large cities. . . . The term 'public use' is flexible, and cannot be limited to the public use known at the time of the forming of the constitution' . . . It must be admitted that owners of land in congested cities have of late, through selfish and unworthy motives, put it to such use that serious inconvenience and loss results to other landowners in the neighborhood. . . . It is time that courts recognize the esthetic as a factor in life. . . . Beauty and fitness enhance values in public and private structures. But it is not sufficient that the building is fit and proper, standing alone; it should also fit in with surrounding structures to some degree."

Under the law, compensation is given the owner of the property against which a restriction causes loss, through payment of the difference in value between use for an apartment house and single dwellings, the other property owners in the lot affected being assessed a proportionate share of the loss. We understand that amendments as procedure, under this law, will be introduced into the next legislature.

First Annual Meeting of the New York State Association of Architects

THE New York State Association of Architects held its first regular annual meeting, following its organization meeting of six months ago, at Rochester, N. Y., Feb. 14, 1920. The meeting was very well attended, principally by members from "up-state."

Of the many matters which came up for discussion, three served as the center of interest. The Legislative Committee reported a series of proposed amendments to the Registration Law which were, in the main, adopted in principle. The more important changes recommended had to do with the requirement of annual registration, an annual fee of $2, and the creation of adequate machinery for the prosecution of violations of the law. This latter was deemed essential, for at present there appears to be no definite plan whereby violators may be prosecuted.

The debate on amending the law with respect to the definition of "architect" did not clarify matters very much, and so the subject was abandoned—an excellent policy and one highly to be recommended, in the case of legal definitions.

Of course the subject of draughtsmen's unions came in for debate, and the reporter is not able to say what was the consensus of opinion upon this weighty subject. It is probably fair to state, however, that the idea was not spurned altogether—there was considerable sympathy expressed and the subject was treated very much as would have been the case had the subject of debate been Fate instead of Unionism. Naturally, and as is customary under such circumstances, the subject was placed in the hands of a committee to think out and debate some more. This committee was instructed to confer with other architectural organizations, and, after some further consideration, the American Federation of Labor was added to the list of eligible bodies with whom conference would probably be advantageous. This latter action appealed to the reporter as being wise, since it was presumptive evidence that in

the opinion of the Convention, the American Federation of Labor was what is spoken of as an "interested party."

Following the dinner, there was general talk and discussion in which a number of very interesting matters were referred to and debated. The Convention was informed of how a group of some thirty-eight architects in Buffalo have formed an association and are jointly acting as the architect of the new school buildings now being erected in Buffalo. This is surely a most interesting experiment and the outcome may well be watched.

What is being done at the present time in some offices, by way of making the problems of the office and pertinent matters more vivid and interesting, was also presented. It appears that in some offices in the state, weekly conferences are held in which the entire force considers a variety of matters having to do, not only with the office problems, but also with whatever may appear to be topics of immediate architectural interest. In one office it has been the custom for the entire office force to visit the work under construction. Here, it seemed to the reporter, was a hint of what architectural education might be if the matter was treated seriously by the profession.

The subject of the high cost of building, and what might be done about it, showed its head for a moment, but so little light was shed upon this tremendously important topic that it was not even referred to a committee to further consider, debate, and report. This subject was treated as Fate and hence no action was taken.

The reporter listened to the debate about the condition of the profession and fees and draughtsmen's wages with an unusual interest, since during the morning of the same day, he was present, by chance, at a conference between the head of the employment section and certain of the workmen of one of the large clothing establishments in Rochester, in which certain matters relating to wages and quality of product were under debate. These workmen, it appeared, were engaged in performing some relatively simple mechanical operation, such as hanging the sleeves in a coat. They were probably of the type referred to as "inadequately equipped" in that remarkable British study entitled "The Equipment of the Workers." These men were drawing $60 per week, and, as the reporter listened to the discussion, he wondered very much about the value of the architect's technical education in a world in which everything is rated in terms of price and in terms of price only. He placed beside the "equipment" of these workers and their wage, that of the young architect with an education covering a period of almost twenty years and still not sufficient to produce an equivalent income. Surely, if one draws conclusions from these two facts, the conclusions can not be very promising as regards the future of the profession. For, if technical education is to represent nothing of value in economic terms in a world in which everything is rated in terms of price, then it is pretty plain that it is only a matter of a short time when education of the sort referred to will be abandoned—no one will want it. This conclusion is not set down as expressing an adverse judgment upon Education; it is rather that it is an adverse judgment upon the kind of education which is carried on in grade schools, high schools, and colleges which eventuates in the rating of everything in terms of price.

COMMUNICATED.

Zoning in Philadelphia

In a letter recently made public, Mr. John Ihlder, Secretary of the Philadelphia Housing Association, made some very pertinent observations in connection with zoning. His letter was addressed to the President of the Real Estate Board, and from it we quote:

"At recent meetings, where the zoning ordinance has been discussed by real estate men, it was evident that the objectors were thinking chiefly of individual pieces of property, not of a large district, or of the city as a whole. At one meeting the real estate men were referred to as gamblers who are constantly taking a chance. One dealer declared that all restrictions are objectionable. Apparently he wishes to figure on the utmost price that may be derived from a given property in the immediate future and is comparatively uninterested in what may happen to it later, or what the effect of his proposed exploitation may be on neighboring properties or on the city as a whole. One of the leading operative builders has several times publicly stated that they are gamblers. . . .

"The Housing Association, which has to deal with the results of the gambles, believes, as a result of its experience, that it would be to the interest of all concerned—in the long run—if the element of gamble were reduced and the physical development of the city put upon a sound business basis. . . .

"We, therefore, hope that your committee, in studying the ordinance, will figure not on the basis of the immediate utmost development of an individual property, but on the basis of the permanent economic development of groups of properties, taking a square as the smallest unit in their calculations, and considering the square as an integral part of a district or neighborhood and the district or neighborhood as an integral part of the city. . . . .

"We hope that your committee will project the development of an entire square on which there now stands one of our highest buildings and show:

First. The result if all the properties are covered to a similar height without any of the land being reserved for light and air-spaces.

Second. The result if all the properties are developed to a similar height, reserving 10 per cent of unoccupied area.

It would be of practical value to the city to learn, after thorough studies as above outlined, if your committee believes it will be more profitable, as a continuing investment, not as a building proposition in which the uncertainties of the future are passed on to new owners, to

(*a*) Develop a whole square to the height of the highest building—say 300 feet—without reserving at least 10 per cent for light and air.

(*b*) Develop a whole square to the suggested height of

150 feet with additional height permitted for setbacks, without reserving at least 10 per cent for light and air.

(*c*) Develop a whole square to the suggested height of 150 feet, with setbacks reserving more than 10 per cent for light and air.

That is, at what point in density of building will diminishing returns per square foot from office rental begin to overbalance the increased floor area? . . . .

"In this connection we hope that your committee will express an opinion on the effect of one very high office building, which meets all the contemporary demand for office space, in delaying the improvement of other properties now occupied by antiquated buildings. Is it better to have an occasional skyscraper surrounded by antiquated buildings or to have a large number of lower office buildings? . . .

"So far we have spoken only of effects within the building lines of squares or blocks. We hope that your committee will also consider the effect of building beyond the maximum heights suggested in the ordinance, upon street frontages and upon the streets themselves. If Walnut, Chestnut, 13th, 15th and neighboring streets were lined with 300-foot buildings, what would be the effect?

First. Upon the lighting of front offices on the lower floors?

Second. Upon traffic in the streets? The population of such buildings would be enormous.

Third. Upon the transit facilities?

Fourth. Upon sewers, water mains and other public services? . . .

"Would such a dense population facilitate or hamper business? What would it cost the city to enlarge its public services? Could the city even handle adequately the task imposed? For example, could it in addition to laying sewers and mains, widen the streets? If so, what method of general street widening would your committee suggest? . . .

"Our belief is that the best economic development from the investor's or long time point of view as opposed to a speculator's or short time point of view, will be the kind of development that will promote the social well-being of the people. We are, therefore, looking forward with great interest to the report of your committee."

Competition for the Remodeling of a Block of Old Tenements in New York City

THE Reconstruction Commission and the Joint Legislative Committee of the State of New York announce a competition, the object of which is to find a means of replacing the slums with decent living-places. Two methods have been suggested: One is to follow the example of London, to tear down the worst of the present tenements and build new homes in their place. The second is to remodel the existing structures in such a way as to make them wholesome, light, airy, and sanitary places to live in.

What Shall We Do with Our Slums?

When one considers the vast numbers of tenements that are below the minimum standard of our present tenement law, it seems impractical to attempt slum clearances on the vast scale that is necessary—if the same end can be attained by remodeling the old buildings. New walls are vastly more expensive than old. Can the old shells be remade into light, airy, sanitary, decent houses? If so, what is the most economical way to attain this end? Can it be done in such a way as to encourage remodeling, not only for the better living conditions that will result, but also by demonstrating the economic wisdom? What size unit—the block, a group of homes, a single tenement—will give the most practical result as to plan, management, and finance? What arrangement of the buildings, courts, yards, will give the best attainable environment for decent living in our crowded cities? How should remodeling be carried out, by individual owners or by groups of owners, with the assistance of the community, city, or state? It is the answer to these questions that forms the subject of this competition.

270 Rooms in a Block without Light or Air

For the purpose of this study, a characteristic block on the lower East Side has been chosen. The competitors will be supplied with plans at ⅛-inch scale, showing the actual condition of all the buildings in the block. They will be required to submit plans at the same scale, showing the alterations they consider necessary. The block which forms the subject of the competition contains tenements of the dumb-bell type as well as the earlier type with no interior court. In these houses, three-quarters of the rooms have no window-opening on the outer air. Two hundred and seventy of the rooms in the block have no air or light excepting that which is borrowed from neighboring rooms. Living conditions in this block are by no means the worst in the city. Conditions here are characteristic of those to be found in hundreds of other blocks throughout the city.

Slums Die Hard

Thirteen years ago the state of New York passed a law for the purpose of doing away with just such conditions as exist in this and similar blocks. The law set a standard of construction, sanitation, fire-protection, light, air, and size of rooms, below which no *new* house might fall. But the old houses? They were patched up a little; that was all. It was said that in time they would disappear. The process of destruction is slow. In ten years—that is to say, between February, 1909, and March, 1919,—58,552 apartments were destroyed. At that rate a hundred years will pass before the last old-law tenement is gone.

Every twenty years or so, New York investigates its slums; reports are written; restrictive laws are passed; but

the old buildings with all their dangers remain. It is interesting to read Mr. Veiller's report of 1900—and to compare it with the results of the survey of living conditions in characteristic tenement house blocks that was made by the Reconstruction Commission of the State of New York last year. The old-law houses have changed but little. Of the 982,926 individual apartments existing in March, 1919, more than half (587,851) were in old-law houses. The old-law houses are a menace to the health and general welfare of not only the millions that live in them but of the whole community.

The underlying faults of the slums can only be remedied by drastic social and economic changes. Congestion will not be done away with until we have developed a different type of city. There are other evils of the tenement houses that are due to poor housekeeping, lack of care on the part of a landlord, whose apartment has never paid, lack of interest of the tenant who lives in a dark hole. These are only indirectly due to bad planning. There are, however, many of the defects of the tenements that can be remedied by better planning. The more obvious of these are:

Living Conditions That Seem Unbelievable

1. *The lack of sufficient air and light.* A large part of the rooms in the old-law houses have no direct opening on the outer air. They are lighted and ventilated only by openings into adjoining rooms. In at least one block in the city one-half the rooms are dark. Other rooms have windows only on small shafts or narrow courts. These give insufficient, if any, ventilation. Many families still live below the level of the sidewalk.

2. *Insufficient and foul toilet facilities.* These are without proper light or ventilation and are used by more than one family.

3. *The prevalence of bad odors,* resulting from the ventilation of toilets on courts, shafts, or corridors on which living- or bedrooms open and the use of the courts as a receptacle for garbage.

4. *The lack of the conveniences and comforts, even of the requirements of modern decent living.* Dumb-waiters, where they exist, are practically always nailed shut. As a result, food and coal (each apartment is heated individually, excepting in the newer houses) must be hauled up four or five flights of stairs. The garbage and ashes, when not thrown down the shaft, must be carried down to the ground floor. There are practically no bath-tubs in the poorer parts of the city. In many homes there are no wash-tubs.

5. *The lack of privacy,* which endangers both decency and health.

6. *Insufficient protection from fire.*

7. *The dreary, unwholesome environment of the homes;* the absence of adequate play or recreational space; the presence of obnoxious factories and stables in the midst of residential regions.

Advances in Modern Planning

Most of the deficiencies of these houses mentioned above are due to poor planning. Their value, not only in terms of better living conditions but also as financial investments would be enhanced if they were properly planned. They are below the standard fixed two decades ago when the present Tenement House Law was written. Since then great progress has been made in the planning of apartments. During the last few years tenements have been planned and erected that show it is possible to cover half the percentage of land that is usually covered by the speculative builder and to get a larger percentage of return on money invested. Such results have been attained by careful planning of large units.

The Competition

The competition that is to be held under the auspices of the Reconstruction Commission and the Joint Legislative Committee on Housing of the State of New York will attempt to find a solution of replanning of old tenements without entirely destroying the old buildings. It seeks to find out whether there is economic wisdom in altering the existing structures in such a way as to make them wholesome, airy, sanitary places to live in.

Proposed Conversions in England

In England, in the past, similar problems have been met by destroying old slum districts and by replacing them with new homes for the workingman. The Ministry of Health, on account of the expense of new construction, now suggests the conversion of old houses into apartments. The Government proposes, where the cost of acquisition and conversion is substantially less than the cost and provision of an equal number of new houses, that the local authorities shall* (*a*) acquire houses and convert them into flats; (*b*) lend money to owners to do same; (*c*) or assist in modification of restrictive covenants so as to permit of conversion."

Financial assistance is to be given by the Government for the conversion of these houses, but the "cost of acquisition and conversion must be very substantially less than the cost of provision of an equal number of new houses." The Manual further states that acquisition should be made by agreement where possible. Where, however, the owner is unwilling to sell at a price which the local authori ties consider reasonable, it will be necessary for the local authorities to make a compulsory purchase order.

Backward America

In regard to the old houses that have served their day, America has not yet squarely faced the issue. The state is not yet ready to assume the responsibility for the conditions in which its citizens live. But the Housing Committee of the Legislature of the State of New York has taken a great step in advance. In its report of January 7, 1920, after announcing that it has undertaken the expense of preliminary drawings for the competition that is to be held under the joint auspices of the Reconstruction Commission and the Legislative Committee, the report says: "It is admitted by all that the existence of these tenements is a menace to the health and morals of the community, and that they retard the proper growth of cities. Unless some practical plan can be speedily developed by which the owners will cause them to be modernized and made

*"Manual of Conversion of Homes for the Working Classes." Ministry of Health. Published by His Majesty's Stationer's office, 1919. 1 shilling.

desirable for dwelling purposes, action on the part of the city or state will become necessary."

CLARENCE S. STEIN,
Secretary of the Housing Committee of the Reconstruction Commission of the State of New York

[EDITOR'S NOTE.—Further information in regard to the competition for the remodeling of an old-law tenement block can be secured by addressing Mr. Clarence Stein, care of Reconstruction Commission, Room 302, Hall of Records, New York City.

British Housing Notes

The New Housing Act

Particulars of the new British Housing Act, passed December 23, 1919, are now available. The Act is to remain in force for two years, so far as the granting of subsidies to house-builders is concerned. Under the Act the Ministry of Health may make direct grants of money to any persons building houses "in material accordance with the conditions as to the number of houses per acre and the standards of structural stability and sanitation approved by the Minister in the case of any scheme submitted by a local authority" under the previous Housing Act. This provision seems designed to compel a type of housing of suitable design and construction. To obtain the direct subsidy, houses must be begun within a year after the passage of the Act, and some £15,000,000 is to be available for the grants. The regulations will provide, in respect to the payments of subsidies,

"That the amount of the payments should vary with the accommodation provided, and that the payments should be in the first instance as follows:

> For a cottage containing living-room, parlor, and three or four bedrooms, and comprising not less than 920 feet super. of floor area, £160 per house.
> For a cottage containing living-room and three bedrooms, and comprising not less than 780 feet super. of floor area, £140 per house.
> For a cottage containing living-room and two bedrooms, and comprising not less than 700 feet super. of floor area, £130 per house.

"The minimum floor areas to be the combined areas of both floors measured within the external or containing walls of the house. No grant to be made for houses with accommodation in excess of four bedrooms, or which have a superficial floor area in excess of 1,400 feet.

"Grants to be made to the extent of two-thirds of the above-named sums for special methods of construction. . . .

"The number of houses to be erected per acre will . . . not be allowed to exceed twenty to the acre in urban areas, and eight in agricultural areas, except in special circumstances and with the express concurrence of the Minister.

"The plans of the houses must be approved by the local authority and comply with the requirements as to construction prescribed by the Minister.

. . . the houses shall be constructed in accordance with the local building by-laws, subject only to such relaxations as are allowed in approved housing schemes. . . .

"Upon approving the plans of any house the local authority will notify the person constructing it of the amount of the payment for which he will be eligible.

"During the construction of the house the work will be subject to inspection by the local authority, and payment will be made after a certificate from the local authority that the house has been completed in a proper and workmanlike manner."

So far as we know this is the first time in which a Government has paid a subsidy to people who would build houses. It is an extraordinary action, taken after previous plans had failed utterly, and it is, of course, no solution of the housing problem, in the long run. What the result may be in stemming the tide of a swelling housing shortage in the British Isles remains to be seen. But the whole British housing episode contains a striking warning for other nations, the United States not by any means excepted.

The financial regulations of the previous Act (which is still in force in respect to the housing schemes already started under that Act) have been revised in order to allay the fears of local authorities. Under the new ruling a local authority will not be penalized on its tax rates if it has not succeeded in making its housing venture self-supporting by 1927. The Government will assume the deficit at that time, should there be one. The new regulations also provide for an extension of the period granted for slum clearances. Originally they were to be completed within three years; the period is now fixed at six, with additional powers for further extension vested in the Ministry of Health. Reasonable progress is expected to be shown within four years. Other nations take warning, is our comment.

Book Reviews

The Intellectuals and the Wage Workers.

By HERBERT ELLSWORTH CORY, Sunwise Turn, N. Y.

Who are "Intellectuals" and who are "Wage Workers"? So far as these questions relate to our own vocational (architectural) group, I encounter difficulty in classification. For if we accept for the basis of such a classification the various viewpoints and opinions mustered by Mr. Cory as expressing the drift of thoughts among intellectuals, it would seem that we may not be included in that category. On the other hand, if we examine the viewpoints and the

opinions of the wage worker as set forth, we may not be rated as wage workers—at least we do not hold to the wage worker's point of view regardless of our economic status. I am inclined to think that, with respect to the matter presented, our opinion is slightly confused. It is probably fair to state that reference to this volume as falling within the category of "architectural books" would have appeared, until a very recent date, as an effort to drag into the field of architectural discussion a matter of an irrelevant nature. Recent events, however, may have changed our attitude as to the relevancy of this volume, or its right to be placed in the category of works "architectural." But recent developments, such as (e. g.) the organization of Draftsmen's Unions, and their possible affiliation with the American Federation of Labor, has evoked for the time being, a body of opinion of a character to suggest that we are not in sympathy with either the attitude of intellectuals or the wage workers.

It is because of this attitude on the part of a considerable number of the architectural profession toward this pertinent question, and also because of the fact that sooner or later the subject must be lifted out of the realms of academic debate and dealt with in terms of action, that this volume may be properly said to belong to the twentieth century architectural library. It deals with art and with architecture in that it deals with those forces which find expression in art and architecture if properly directed, and which result in disorder and chaos when thwarted or led astray by contaminating influences.

This volume will be of value not alone to the architect who has shortly to deal with the world of labor on far more intimate terms than heretofore, but it will be of value to all those who are seeking to untangle the present complex world of thought and opinion. For within the two hundred and seventy-odd pages one may follow the drift of thinking which has taken place in the recent past and which has ever sought to integrate both men and the institutions which they have created.

Paralleling this analysis, sometimes moving independently, sometimes as a part of the former, is another seeking to better understand the thought and to interpret the action of wage workers in their attempt to work out in terms of their own, the real meaning of Equality, Liberty, Freedom. Thoughts and actions are not merely recorded: schools of thought, programs of action are woven into a single fabric, so to speak, around the viewpoint of psychoanalysis, forming, as it were, the warp of the fabric. No attempt is here made to review the argument; the book is a summarization and the argument may not be set forth briefly. Reference is made to a single consideration which bears directly upon our immediate problem—our relation to the wage worker.

Through lip service to an idea we convey the impression that art is the result of the creative impulse operating under conditions of freedom, that is to say, that art emerges out of a beneficent industry and does not have to be "fostered." But it is plain enough that in action we accept our institutions operated through servile labor; and we look to the results of exploitation to provide patronage.

"In England, Doctor Samuel Johnson's famous letter to the Earl of Chesterfield sounded, over a hundred and fifty years ago, a kind of emancipation proclamation of the artist against the gentle servitude of patronage. Nevertheless, patronage has continued. Artists, educators, and scientists are still too often mere flunkies. But whereas patronage under Renaissance aristocracy was sometimes rationally planned, patronage under middle-class democracy is almost invariably capricious, utterly divorced from a healthy institutionalism. . . . So, today, artist, educator and scientist stand half parasite, half pariah, and their voices are heard scarcely at all in the great tumult of class war and the growing murmurs of social reconstruction. Let us not pity them, however, for until they dare to realize that the dignity of research is intimately bound up with the joy of life, the workmanly pride, the moral autonomy for which society should allow release in the most oppressed "unskilled" laborer today, our artists, educators, and scientists have no insight whatever, no courage, no integrity. . . .

"One after another, artists, educators, and scientists are springing up who are brave enough to assert that they have suggestions to make both to these economic subdivisions and to the great states which enclose them and seek to arbitrate their differences. Therefore it is fitting that such artists, lovers of art, scientists, and teachers, those who aspire to bring the various crafts and professions closer to science and the fine arts—for the sake of art and science quite as much as for the sake of the crafts and professions—should unite even as these industrial groups have united, or better yet, should fuse themselves in union with the various appropriate industrial groups to form associations not for personal aggrandizement but for a richer and more spontaneous and more rational personal expression. By far more critical and energetic, as a whole, than the artists and scientists are the wage workers, whose only rivals in reconstruction are those who are elaborating and integrating the younger sciences which deal with man and his relations to his fellows, those who develop certain biological fields, and the psychologists and ethnologists. British labor has called to the forward-looking intellectuals to unite themselves with the wage workers in a community of producers, and it is the task of these essays to elaborate their program. But first the intellectual must humble himself and recognize that hitherto progress, when it happens to be made, is as a fact made largely at present by less rational means, by the trial and error of cultivated and uncultivated mobs and by the lucky stroke of some individual much misunderstood. The truly rational man, naturally, will coöperate with the most legitimately vital of these forces as he studies them and will not be amazed to discover how rapidly they have been growing towards rationality even before he contributed his little intelligence to their refashioning. By far the most legitimately and sustainedly vital of these forces, he will find, is the labor movement. The rational man needs, then, to become bilingual, to know the languages of the academic sciences and the language of the socialisms 'revolutionary' and 'revisionist.' Soon even the backward American proletariat will emulate its comrades in England and invite the American 'intellectuals' to join it in magnificent reconstructive achievements. Let the American 'intellectuals' be prepared."—R. W. T.

News Notes

THE Metropolitan Museum of New York City announces a series of five lectures on "The Culmination of Greek Architecture in the Age of Pericles," by William Dinsmoor, architect, to the School of Classical Studies, at Athens. The lectures will be at 4 o'clock on the afternoons of March 25, April, 1, 8, 15, and 22.

A MEETING of the Executive Committee of the Board of Directors was held at Newark, N. J., on March 5 and 6. The meeting, following the precedent now established, was held at Newark in order that the Executive Committee and the New Jersey Chapter might join in a discussion of Institute affairs.

AT the annual meeting of the Michigan Chapter it was reported by Mr. Kotting, as chairman of a committee, that the various technical societies in Detroit were in favor of forming an affiliated body, and that it was proposed to purchase a central club house for quarters.

At the same meeting there was also discussed the proposed separation of the School of Architecture from the College of Engineering at the University of Michigan, and it was urged that the members of the Chapter use their influence toward the accomplishment of this end.

THE Washington (D. C.) Board of Trade announces its intention to award bronze tablets for the best buildings, in three classes, erected during each year in the city. The awards will be for the best apartment house, non-elevator type, not over four stories; the best apartment house, elevator type, over four stories; and the best commercial building not exceeding four stories.

THE Committee on Allied Arts recommended a survey of the "art industries" of the United States in its last report. Such a survey is now under way, we are informed, under the auspices of the National Society for Vocational Education. The result is to be used in determining the type of "art education" to be recommended for introduction into the general and public schools of the states.

A SPECIAL committee of the Connecticut Chapter made a public statement in regard to the competition for the Maple Avenue High School, in Hartford, pointing out that the unregulated competition inaugurated by the authorities would only jeopardize the public interest and be likely to lead to grave abuses. It seemed inconceivable that a city of the size of Hartford could continue to play with its public building problems in the manner of the dark ages of building in the United States, and we are glad to record the fact that the school building committee has been ordered to meet with the Chapter Committee and revise the competition program.

AT the last meeting of the San Francisco Chapter, it was voted as the sense of the meeting that a state society was not desirable, but that the proposed scheme of regional representation on the Board of Directors was preferable as likely to yield all the good effects of a state society with none of the disadvantages.

A MEETING of the Executive Committee of the Minnesota Chapter was called to take action in regard to the City Planning Commission for Minneapolis. It was voted, as the sense of the meeting, that the City Planning Commission be approved, and the City Council so notified.

THE President of the Institute has appointed E. J. Russell as chairman of a Special Committee on Engineering Coöperation. His Committee will confer with a committee from the Engineering Council in matters of mutual interest to the two professions. The other members of Mr. Russell's Committee are Richard E. Schmidt and William P. Bannister.

THE American Academy in Rome announces its competitions for Fellowships of the Academy in Architecture, Sculpture, Painting, and Landscape Architecture, the first three being annual with a value of $1,000 a year for three years, the last one being of the same value but only awarded every three years. The final selection of Fellows is to be made by the Committee on the School of Fine Arts from not more than four in each branch, selected by the several juries in the competitions. Heretofore the juries have made the respective awards. The competitions are also to be extended to include married men and women as soon as accommodations are ready in the Academy building.

Obituary

Charles F. Schweinfurth

(For notice of death, see the Journal for December, 1919.)

About thirty-five years ago S. T. Everett, desiring to erect on the corner of Euclid Avenue and East 40th Street the finest residence in Cleveland, brought from Boston an architect who, from that time became, and remained until the date of his death, November 8, 1919, a conspicuous citizen of Cleveland. The house he designed still stands as the city's finest example of domestic Romanesque architecture, but the genius who created it has passed away.

Numerous other citizens, appreciating the architectural skill of Charles F. Schweinfurth, placed their commissions in his hands. Charles F. Bulkeley asked him to remodel the house on the southwest corner of Euclid Avenue and East 30th Street; the result was one of the most cozy and homelike structures in Cleveland.

The golden brown structure on the southeast corner of Champlain Avenue and West 3d Street is one of his crea-

tions. It was built for the Cleveland Telephone Company and is still used by that company to house its "Main" exchange.

On the northwest corner of the Public Square, the American Trust Building stands, as practically the only example of his commercial structures. This building is not as good in design as most of his work, due, it is said, partly to the dictation from the owners and partly to the fact that his mind dwelt more on medieval and artistic things than on modern business.

His Ursuline Academy at the corner of East 55th Street and Scovill Avenue, though not as well known as it should be, can be cited as one of the most beautiful examples of medieval design applied to a modern structure.

However, the building on which Mr. Schweinfurth devoted the greatest amount of time and into which he wove the greatest amount of his personality, is Trinity Cathedral, at the corner of Euclid Avenue and East 22d Street. For many years he labored over the design for this structure, striving to obtain perfection and hoping to raise the standard of architectural appreciation of the trustees, so that they would provide the necessary funds required in its erection. After many years of conscientious study, contracts were let for the building without the central tower, and work was begun on the structure. To illustrate the kind-heartedness and the poetic disposition of the man, Bishop Leonard tells the following story: "After a long session with the building committee in which Mr. Schweinfurth seemed to plead in vain for the necessary funds with which to erect the tower and thus complete his masterpiece, Samuel Mather started to withdraw from the conference on the plea of having another engagement. At the door he stopped and said: 'Gentlemen, it will be unnecessary for you to further study means by which the trustees may secure the necessary funds with which to erect the tower, as I have decided to erect same in memory of my father.' Mr. Mather at once disappeared and after the members of the committee had ceased to congratulate one another on the happy outcome of their long struggle, they looked about for Mr. Schweinfurth, in order to give him the necessary instructions for proceeding with the work, but he also had disappeared. After a long search, the bishop found him in the parish house to which he had retired in order to give way to tears of satisfaction and gratitude."

He was known as a man of the highest integrity and when not embittered from lack of appreciation by clients and contractors, always exhibited the most generous and lovable disposition. He was recognized in Cleveland and throughout the country as an architect with the deepest regard for professional ethics, and was admired for his sterling integrity and for his uncompromising determination to secure for his clients that to which, by reason of their contracts, they were justly entitled. There can be no question but that his personality, more than that of any other man, has tended to raise the standard of architectural design and construction in Cleveland, and though he has passed away, his works will remain with us for many years, as an example of the high ideals for which he stood.—Written for the *Cleveland Topics* by BENJAMIN S. HUBBELL.

George T. Pearson

Elected to the Institute in 1907
Died at Germantown, Pa., January 9, 1920

Mr. Pearson was born in Trenton, N. J., June 7, 1847. His general education was obtained in the New Jersey Model School and Trenton Academy. His architectural training began in the office of C. E. Graham, of Trenton, after which he went respectively to the offices of Sloan & Hutton, Addison Hutton, and John McArthur, Jr., all of Philadelphia. He established his own office in that city in 1880.

His principal works are the Norfolk & Western office building and stations at Lynchburg, Petersburg, Roanoke, Salem, and Radford, Va.; the Colonial office building, Philadelphia; the residences of J. B. Stetson, E. W. Clark, Jr., and J. M. Guffey, Pittsburgh; the college buildings at De Land, Fla.; hotels at Pulaski, and Roanoke, Va., and at Barberton, Ohio, and De Land, Fla.; the Market Square Church and Tunker Church, Germantown; Trinity Church, Geneva Chancel and Reredos, St. Alban's, Olney, Pa.; Reredos, St. Luke's Church, Germantown, and four buildings for the Philadelphia Cricket Club, at Chestnut Hill, Philadelphia.

Henry W. Hartwell

Elected to the Institute, 1865
Died at Boston, Mass., December 30, 1919

Mr. Hartwell was born in Boston, Sept. 4, 1833. His education was received at Lawrence Academy, Groton, Mass. He studied architecture in the offices of Joseph E. and Hammatt Billings in Boston, where he opened his own office in 1855, and, except for the period of his service in the Union Army 1862–3, he was thus engaged until his retirement from business a few years ago.

Among the buildings designed by Mr. Hartwell's firm are the Fall River Academy of Music; Central Church, Fall River; Youth's Companion Building, Boston; and the High School, Springfield, Mass.

The following resolutions on the death of Mr. Hartwell have been passed by the Boston Society of Architects, of which he was a charter member:

Resolved, That by the death of Mr. Henry W. Hartwell the Society has lost one of its oldest members. A quiet man, engrossed in the practice of his profession, he kept in active touch with the Society and the Institute for many years, and held them in the highest regard. He was a man of sound judgment, careful and thorough in construction, and always interested in the development of his chosen profession as a fine art. He well merited the respect and regard that was accorded him by a large circle of friends, and he will be held in remembrance as one who has served faithfully the highest interests of his profession.

Resolved, That the Boston Society of Architects expresses its deep regret at the death of Mr. Henry W. Hartwell and offers to his family its appreciation of his high rank and sterling integrity and presents its most sincere condolence.

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Shadows and Straws

IN THE BUILDING WORLD, the guild development at Manchester, England, of which an account appeared in our last issue, takes rank as the most important and significant development that has come out of the war, so far as England is concerned. It is too early to make more of a prediction than that. But whatever may be the fate of the movement—and the latest advices still indicate that the plan will be at least tried out—there can be no mistaking the character or the extent of the influence which has been exerted by the mere discussion of the proposed scheme.

That the seed of this form of industrial democracy has fallen upon hospitable soil cannot be denied. The housing crisis in England makes for a popular willingness to experiment along any sound line that appears likely to give relief. Thus, the proposal of workmen to organize themselves into a building guild and erect houses cheaper and better than can be done in any other manner finds a hearty welcome. Indeed, the qualities of speed and cheapness almost fall by the wayside in the face of the fact that the Government has failed utterly to stimulate the building of houses, in the greatest housing crisis that ever befel a nation unravaged by war.

NOT FOR PROFITS do these workers contend. They propose to develop a method of building which shall be based upon the principle of quality, and thus to rescue architecture from its present drift toward standardization and sterilization. They propose to organize the building industry so that workmen will be guaranteed a full week's work and pay, each workman becoming, in effect, a salaried member of the guild. More than that, they have enlisted the active coöperation of architects and of intelligent contractors, whose skilled service must form a part of guild development.

"The decision of the Irlam District Council to place a contract for the building of a thousand houses with the Manchester and District Building Guild Committee," says Mr. G. D. H. Cole in the *Westminster Gazette*, "will almost certainly be ratified by the Ministry of Health, with which the matter had already been fully discussed before the contract was accepted. This means that, for the first time, there will be a real and practical test of the proposals urged by National Guildsmen for some years past, and accepted by an ever-growing proportion of trade unionists in almost every industry. . . .

"The reasons why the building industry is an exceptionally favorable field for the trial in practise of the Guild idea are, first, the widespread public discontent with the failure of the existing methods to get housing schemes properly under way; and, secondly, the fact that the building industry is worked with less capital than any other important industry can be. Everywhere the public is clamoring for houses, and, although some financiers hold that, owing to the economic conditions, the delay in housing is a good thing, nobody who seriously put forward such a proposal could hope for a long tenure of office. Houses must be built, and, the existing methods having plainly failed to provide them, any new proposal which offers a reasonable chance of better success can be sure of the most careful and sympathetic consideration, however much it may offend against prejudices or presuppositions held by the majority of local councilors and government officials. Apart from finance, the main difficulty in the way of housing schemes is the difficulty of labor, and the strength of the Guild lies in its ability to mobilize labor for the task. . . .

"This, of course, cannot be done without an advance from the local authority or a loan from a bank, but the amount required for the plant with which to start operations is, comparatively speaking, so small as to present no difficulty, whether the advance is provided by the local authority or from other sources. The cost of the job, including the cost of pay and overhead charges, will be borne out of money paid over by the local authorities in instal-

ments during the progress of the job; and, as the buildings erected will be throughout the property of the local authority, it will always have in its possession the security for the advances which it makes. This is, indeed, the method which land development agencies and building syndicates have always pursued in financing small builders. The difference here is that the arrangement is made not with a private builder, but with a Guild founded and controlled by the workers.

"It is important to realize that the Manchester Guild Committee, which owes its origin to the district committees of the various building trade unions, regards itself only as the forerunner of a national Guild organization. As similar Guild Committees spring up in other centers, they will be linked up on a national basis, and provision is made in the Manchester scheme for a subsequent vesting of all assets in a National Building Guild, when it is brought into existence. Further, it should be realized that the Guild does not desire to produce for profit, but on a cost basis, with only a margin for contingencies arising in the experimental stages of its working. Its promoters confidently anticipate that, by getting all sections in the building trades to work harmoniously together and put their best into the task with the assurance that they are directly serving the community and not any private interest, it will be possible to increase very greatly the efficiency of production and thereby to cheapen its cost. The Building Trades Parliament has fully recognized the huge opportunity which more scientific methods of production will afford for an increase in both quality and quantity of output; and the Guild leaders believe that they, as pioneers, will be able to turn some at least of these possibilities into actual facts. . . .

"Naturally, criticism of the Guild proposal has centered largely round its financial aspects. Both on the Manchester City Council and at the Ministry of Health, it has been objected that the Guild is not, like a capitalist builder, in a position to give a financial guarantee. To this the Guild leaders have promptly retorted, in the first place, that the financial provisions outlined above give the public all the security it needs, and, secondly, that the Guild's business is not with financial guarantees, but with labor guarantees. The private builder, they point out, may have capital; but, even if he is so equipped, it is manifest that he can give no guarantee that he will be able to secure a sufficient supply of skilled labor to carry through his contract. The trade unions, on the other hand, which stand behind and constitute the Guild, may not have money, but they do possess a practically complete monopoly of building labor, and are therefore alone in a position to guarantee the supply of labor. This argument appeals with exceptional force in Manchester, where almost the whole housing scheme has hitherto been held up by the failure to attract the necessary number of workers, particularly bricklayers, to the job.

"The building operatives believe that, if the available labor is properly distributed so that the most urgent classes of work receive preferential treatment, there is no absolute shortage of workers in any section of the building industry. It is only a question of providing the conditions which will ensure that house-building gets its fair share of the labor that is or can be made available."

ONE WONDERS, in case such a proceeding were suggested in this country as a solution of the housing problem, for which no solution is now in sight, what would be the reception accorded it. Unfortunately, we are not yet so fully alive to the possibilities of industrial democracy as are all classes of Englishmen, even though in that land it still encounters the stoutest resistance. But the principle of collective bargaining is there too well established to be debated, and the guild scheme for Manchester thereby escapes being immersed in that particular fog of obscurity. Again, the guild scheme is also understood in its relation to certain fundamental economic principles. English workmen now know that it is useless for them to ask for higher wages for building houses, when the higher wages are bound soon to be taken up in the shape of higher rents and higher cost of everything they eat, wear, or use. Therefore the guild principle means an attempt to secure decent wages and working conditions without increasing the cost of building. It is a plan based upon such elementary commonsense that any child ought to be able to understand it.

BUT THERE IS FAR MORE to the guild movement than a pecuniary betterment to the workers, and it is significant that the other aspects of the movement, their importance and their portent, are not lost to sight, even in the newspaper press. The whole question is there discussed with an open-mindedness which quickens one's faith in the fundamental, if sometimes latent, sense of fair play and justice for which the plain English people are celebrated. Perhaps a good sample of this attitude of the liberal English press is the following editorial from the *London Daily News:*

"Whatever comes of it, the Manchester Building Guild scheme is a most extraordinarily interesting experiment. The essence of the scheme, as explained by Mr. Hobson, is that houses are to be built at net cost (that is to say, cost of labor and materials) plus 10 per cent. This 10 per cent would not be profit, but would be utilized to meet overhead charges—

such as management expenses, etc.—to purchase plant (which would be vested in trustees) and to meet the obligations which the Guild would undertake towards labor. The Guild is already sufficiently confident to declare that so soon as its organization can be extended from a Manchester to a Northwestern Guild it will be prepared to undertake the building of 100,000 houses. That is a fair enough retort in itself to the Prime Minister's accusation against Labor of delaying the necessary house-building. But the most remarkable and the most hopeful feature of this scheme is the spirit behind it. The revolt of the workman against bad workmanship and jerry building is by no means confined to Manchester; but it is enshrined in this Manchester scheme. If it prove effective in operation, a thing will have been done greater than the building of any number of houses, desperate as the house-famine is. We shall be fairly in sight of a revival of the spirit of craftsmanship which was the pride and glory of the Middle Ages. It will not be confined to any one trade; it will be an industrial revolution as tremendous in its results as that which changed the face of England last century, and free from its very nature from the abominations which disgraced its predecessor."

How small a difference there seems between the English Building Guild proposal and the actual guild of the Buffalo architects, described in this issue.

JURISDICTIONAL DISPUTES have been a great source of delay and loss in building. The news of the first awards of the National Board of Jurisdictional Awards, published in the Structural Service Department of this issue, will be welcome to all members of the building industry. A formal circular will be issued to all members of the Institute, explaining to them that as the last Convention instructed the Board of Directors to bind the Institute in an agreement with the National Board of Jurisdictional awards, they are solemnly bound to observe the awards made by the National Board under penalty of suspension from the Institute. Naturally, the other parties to the agreement, Engineering Council, Building Trades Department of the American Federation of Labor, and the Associated General Contractors of America are similarly bound.

All architects who are not members of the Institute are morally bound to subscribe to and observe these awards. They are based upon a mutual recognition, by representative organizations of the building industry, of the necessity of sparing building construction from the delays and losses incident to disputes over trade or craft jurisdictions. They are momentous evidence of the fundamental work being done by the American Institute of Architects—a work which is wholly devoid of the lure of the esthetic, which has entailed months of patient negotiation, but which every architect will recognize as vital.

The Crisis in Architecture

By ARTHUR J. PENTY

II. THE FAILURE OF THE ENGLISH VERNACULAR REVIVAL

NOT the least among the causes that led to the defeat of the revival of vernacular architecture in England was the lack of an adequate esthetic philosophy. It would be untrue to say that the vernacular revival which led the way to the general revival had no philosophy, for the pioneers of the movement were a group of young architects who were saturated with the traditions of Gothic and vernacular architecture, and had, as pupils, imbibed such philosophy as had developed out of the Gothic and Queen Anne revivals, adding to it a philosophy of their own, which in one sense carried these revivals to their logical conclusion. Yet finally it was in a method of work rather than in an esthetic philosophy that they put their trust. They were familiar with the architect who was Jack of all trades and master of none. It was primarily from this point of view that the practice of architecture was criticized. The architect, they maintained, designed in so many materials and attempted to fill so many functions that he was competent in nothing. His position was an impossible one, and he muddled along as best he could. Hence they concluded that there could be no hope for architecture so long as the architect remained an office-man. Architecture was essentially a coöperative art, and only when the architect abandoned office-work and resumed once more his position as Master of the Works, directing the work of individual craftsmen who, possessed of traditions of handicraft, were able to supply details of their own work, could any widespread revival of architecture be possible. In order to effect this change the crafts must be revived and architects had to take the lead. They must take off their coats and work at the bench and the forge, in order by experiment to effect a revival of the traditions of handicraft,—the necessary preliminary of any revival of architecture.

The Basis of the Revival

This new gospel was first announced authoritatively to the profession in a volume of essays, edited by Messrs. R. Norman Shaw, R.A., and T. G. Jackson, R.A., under the provocative title "Architecture: A Profession or an Art," and published in 1892. Its publication was the sequel to a protest entered by a number of architects, in the *Times*, and sent to the President of the Royal Institute of British Architects, against a Bill promoted by the Society of Architects to make Architecture a close profession; for though the R.I.B.A. were officially opposing the Bill, it was at the time an open secret that it was with the idea of substituting a bill of their own. After defeating the Registration Bill, some of the architects produced this volume to carry the war into the enemy's camp. They sought not only to defeat registration, which the essayists held would be fatal to the interests of architecture as an art, but attacked the R.I.B.A. examination system, affirming that the revival of English vernacular architecture must form the basis of any architectural revival, and proposed a return to the Medieval conditions of building. This volume of essays became the architectural faith of the nineties. All the architects who were the means of effecting the revival in those fruitful years subscribed without reserve to its tenets.

The Architect as Craftsman

Now, so far as I can see, the substance of this teaching is finally true. The fact that it was the means of laying the foundation of the revival of architecture, and that the subsequent abandonment of this faith has been followed by a decline, puts it, for me, beyond dispute. But while, on the one hand I feel there is no denying the ultimate truth of this teaching, on the other, there is equally no denying that it is an ideal so remote from the circumstances of modern practice that it is capable of being acted upon only in the most exceptional circumstances. Prudence therefore suggests the wisdom of accepting such teaching as an architectural philosophy, and reducing it to practice only to the extent that circumstances permit. As a matter of fact, this was the spirit in which it was generally accepted, for the number of architects who abandoned office practice to take up craftsmanship was very limited, and, with the exception of three or four who did actually build a few cottages and returned to office practice after gaining their experience, those who remained craftsman either took up non-architectural crafts or took to the decorative crafts and coöperated with architects in the design and execution of the decorative parts of their buildings. Still, it was ultimately to the experiments of these craftsmen that the revival was due. They did not succeed in persuading the profession to abandon office practice, but they did succeed in endowing it with a standard of taste which reacted to enable the office architects to produce work of real architectural merit, and which was acting as a leaven until the Renaissance revival undermined all that was vital in the movement.

Practice and Principle

It is one thing to lend approval to a principle; it is another to reduce it to practice, when it means embarking on an enterprise which runs counter to the economic evolution of the age, of which the natural tendency is not to heal the breach which separates the artist and the craftsman but to separate them still further. Hence it was not long before the impossibility of giving a literal interpretation to the new teaching came to be widely recognized, and reform was sought along the lines prescribed by the conditions of architectural practice. Mr. (now Prof.) W. R. Lethaby, to whom the arts and crafts movement, of which the architectural movement formed a part, was ultimately due, now became the oracle of the movement. He was an architect of exquisite taste, and his advice had been sought and freely given to all the young men of the movement, and the success which had followed his advice was so fruitful that he came to exercise an influence with which none could compete. If the movement had a canon of taste it was his taste, which was accepted by all of the best craftsmen. He became Technical Education Advisor to the London County Council and then began to lecture on architecture and craftsmanship. In the new gospel that he preached he denied any distinction between architecture and building and advised architects to throw overboard their pilasters, egg and dart mouldings, and all the other paraphernalia in which architecture had become encrusted, and to search in the lines of construction for a new inspiration of beauty. This advice, which was in effect a plea for a return to fundamentals, was at the time it was uttered most excellent advice. The idea of architecture had become too closely identified with the paraphernalia of the styles, the basis of such forms in structure had been lost sight of, while the value of plain surfaces, an appreciation of which is the most fundamental thing in architectural taste, was almost non-existent. This new teaching, by tearing away all the secondary things in architecture, gave emphasis to what was really fundamental, and the real revival may be said to date from the recovery by the profession of the sense of space which followed this teaching. For, as the majority of the profession thought of architecture and building as different things, it was distinctly healthy for them to be told that one was merely a higher form of the other, and that the taste and ability required to build a beautiful barn or cow-shed was the same in kind, if not in degree, as that required to build the mighty cathe-

dral. This advice, I say, was healthy, and, as one who acted upon it for a space of three or four years, I can say that it did me a world of good. It gave me a grip of the structural basis of design that has served me well ever since, and though for a time it led me into strange bypaths, I gradually found my way back to the traditional forms of architecture. But, when I returned to them, they were no longer the dead impedimenta that had obstructed my path, but real, living forms of expression that I could use. My experience leads me to believe that all young architects should begin this way. They should be taught to confine their attention in the first place to the mere bones of architecture, and to find their way to the use of traditional forms only very gradually, adding one moulding or feature at a time, until architecture becomes organic in their minds.

Building Futurists

It was the misfortune of the movement that instead of these architectural gymnastics remaining on paper they found their way into execution, and a kind of barebone style came into existence that was crude to the last degree. The architects who followed this style had become futurists in building. They no longer sought the rejuvenation of old traditions, but thought it possible to build up an entirely new style, different from anything that had ever existed in the past. But of course it could not be done. Their anxiety to avoid any semblance of the traditional forms drove them into the cultivation of little mannerisms, and they went from extravagance to extravagance. This style, which nowadays we know by the name of New Art, proceeded to its greatest excesses on the continent, especially in Germany and France, where all restraint disappeared. These extravagances immediately led to a reaction in which what was good in the movement was thrown aside along with what was bad.

The Economic Shadow

An unsigned pamphlet published about this time (1905) by the Junior Art Workers' Guild voiced the opinion of the rising generation of architects and craftsmen as to the situation that was developing. While on the one hand it deprecates the extravagances of New Art and advises a return to the traditional forms of design, on the other it directs attention to the economic problem that confronts the rising generation. After asking what is to be done to rescue the movement from its perilous situation, it goes on to say that it is the Sphinx riddle that art must answer, or, failing to, will cease to exist. The emphasis given to this aspect of the problem makes it obvious that the rising generation perceived clearly that economic considerations were likely to be the determining factor in the crisis; and subsequent experience has proved they were not mistaken. It is impossible to understand the reaction that took place against the craft ideal of architecture apart from an appreciation of the economic changes that came over England in the opening years of the present century; for there is no reason to suppose that the craft and vernacular movement would not have survived the reaction against New Art, which was deplored as much inside as outside the arts and crafts movement, had it not so happened that these excesses coincided with the growth of economic difficulties. During the nineties, when the arts and crafts movement boomed, trade boomed in England. Architects and craftsmen alike did very well. But during these years limited liability companies spread their net over industry, and this everywhere affected the position of the rising generation. These companies intensified the pressure of competition, undermined the position of the middle class, and placed enormous power in the hands of large organizations; and so it was that the economic base upon which the movement rested largely disappeared. Such architects and craftsmen as were already well established, and who possessed a clientele who were profiting by these changes, remained, though in most cases their circumstances were difficult; but for the rising generation the prospects of establishing themselves were practically nil unless they had exceptional luck or were exceptionally well connected. For experience proves that limited companies will have nothing to do either with new men or new ideas. They are dominated entirely by lawyers who are a most deadly influence, not only because of their insistence upon precedent, but because, as a class, they are temperamentally antagonistic to men with creative gifts. What they love is officialism and routine, and this is an influence against which the artist fights in vain.

The Smear of Bureauracy

Since the nineties, this official routine element has been triumphant everywhere in England, and it was because architects became for the most part dependent upon influences of this order that the normal development of the vernacular revival was frustrated and the Renaissance reaction came upon us like a flood, carrying all before it. The young architect now ceased to look forward to becoming a private practitioner; his hope in life was centered upon getting into some official position, and this reacted to undermine him as a fighter. He had little option but to do what was asked of him, and the Renaissance everywhere found favor in official quarters. A secondary reason was the spread about this time of architectural schools in London and the provinces which rapidly degenerated into factories for turning out architects to a standardized pattern, who knew

everything about Greek temples but little or nothing about how houses were built, for, according to this new dispensation, architecture and building were separate things again, and it appears to be beneath the dignity of these institutions to teach students anything about the work they will be required to do unless they happen to find their way to the top of the profession. The reason why architectural schools invariably tend in this direction is easy to understand. It is easier to reach architecture with a big A than building with a big B, because whereas Greek and Roman architecture has been reduced to a system of external rules and proportions, no such rules are available if Medieval and vernacular architecture are taught. In this connection it is well to remember that not the least among the causes that led to reaction was the demand for a teaching that was definite. It was felt, and I believe rightly felt, that no widespread revival of architecture was possible on a basis of personal inspiration. There was a demand for some authoritative standard, some canon of taste whereby the efforts of individuals might be measured. It was because the Renaissance pedants supplied this need that their rules and formulas were adopted without thought as to the consequences. The advocates of the Renaissance, while realizing the fact that these self-same rules had strangled architecture in the eighteenth century, persuaded themselves that such pedantry could not return now that their eyes were open. But experience has proved otherwise, for pedants apparently cannot learn by experience. They strangled the vernacular revival with as little thought as their predecessors of the eighteenth century strangled the vernacular architectural tradition.

Renaissance as an Expedient

When the Renaissance began to find favor in England, the argument that was then used to promote it was not that it was a higher form of architecture than the Medieval, but that it was more adapted to the conditions of modern practice, inasmuch as while Gothic was essentially the architecture of craftsmen, Renaissance was essentially the architecture of the architect, and as we had no option but to practise as architects whether we sympathized with the craft ideal of architecture or not, better results would be obtained by frankly accepting the situation and making the Renaissance the basis of our practice; and it was the custom to support this contention by pointing to the greater success that had followed the revival of the Renaissance in America, in the sense that American architects had been more successful in influencing city work. We were not told that American architects had been inspired by the English revival, but only that they had been trained at the Beaux-Arts. And so it came about that the adoption of English ideas by American architects was followed in England by a demand for the Beaux-Arts training, the methods of which became established in the schools. Armed with this weapon the advocates of the Renaissance—who were unaware that American architects had turned away from the Beaux-Arts—did all they could to depreciate the Gothic and vernacular revivals to which our revived architectural sense really was due. Thus we see that the very success of the policy of the English vernacular revivalists, in the popular ignorance of the exact facts, reacted to undermine it. For the tragedy of the English revival was that its pioneers were unsuccessful practitioners, meeting with the fate common to pioneers all the world over. The rest of the profession, viewing their fate, attributed their failure to the fact that they had espoused the wrong style, instead, as was actually the case, to the fact that they were pioneers. And so reaction came. Opinion rushed from one extreme to the other. The craft ideals of the vernacular revivalists were replaced by those of the academic Renaissance, and our worst fears were fulfilled. The revival of the Renaissance was soon followed by the revival of its pedantry, and leadership in architecture passed out of the hands of creative artists into those of pedants who dug themselves in in the schools. The consequence has been that, apart from the work of a few well-known architects who had too much sense to succumb to this deadly influence, English architecture in the mass has degenerated into a lifeless formula that arouses no enthusiasm except among pedants who corrupt the mind of the rising generation with the imbecilities of the eighteenth century. These pedants, after strangling the Roman Renaissance in a few years, proclaimed the ideal of the Neo-Grec.

The Old Book and the New World

I do not know whether the academic pedantic tendency is inherent in the Renaissance, but there is no doubt whatsoever that pedantry in the past became inevitable when architecture became separated from its base in the vernacular, while we may be equally sure that it was because the Renaissance revivalists turned their backs upon the vernacular movement that they developed the same tendency. This evil might have been averted had there been in existence some book formulating the inward laws governing vernacular architecture. It is a thousand pities that Mr. T. S. Jackson's "Reason in Architecture," which was published about this time, did not deal with domestic and civil instead of with ecclesiastical architecture, for it was precisely the kind of book that was wanted to keep the Renaissance movement within the bounds of sanity. But, unfortunately, those who stood for the vernacular re-

vival appear to have entirely misunderstood the situation, and no sure leadership was forthcoming. One of the reasons for this may have been the changed nature of the architectural demand. In the days of the Gothic revival there was an enormous demand for churches, and it was upon this demand that the movement was built. But nowadays this demand had become quite negligible. The demand was for municipal and city buildings, and it was because on this side of architecture little literature but that of the Renaissance was available that the average architect thought any other form of architecture but academic Renaissance was inapplicable.

The Retreat to Efficiency

To make matters worse, Professor Lethaby, upon whom the vernacular revivalists had become accustomed to rely for leadership, failed them entirely in this crisis. Instead of seeking to adjust the movement to the changed circumstances, he entirely ignored the economic change that had precipitated the crisis and came out as a strenuous advocate of the use of ferro-concrete, for which he prophesied a glorious architectural future. He idealized concrete as a building material, urging architects to give it their attention. "Modern armored concrete," he says, "is only a higher power of the Roman system of construction. If we could sweep away our fear that it is an inartistic material, and boldly build a railway station, a museum or a cathedral wide and simple, amply lighted, and call in our painters to finish the walls, we might be interested in building again almost at once. This building interest must be aroused. We have to aim at a standard of ordinary good quality; damp, cracked, and leaky architecture must give way to houses as efficient as a bicycle." Such was the new ideal, and it was an ideal that was utterly impracticable, for no one who builds entirely in concrete does so except for the purpose of cheapness, and such people are not interested in frescoes. From that moment the vernacular revival was a lost cause. The younger generation had become too demoralized by their economic struggles, or had become too dependent to put up a fight. They felt they were betrayed, for they felt this new gospel would not only entirely undermine all that they had fought for but discredit them personally. It was to hand them over body and soul into the hands of the enemy. Those who continued the struggle fought no longer in architecture. A rear-guard action was fought out in the columns of the *New Age*. The rise of the National guild movement is closely connected with these activities.

Now what was the reason of this apparent change of front on the part of Professor Lethaby, for he was certainly unconscious of any inconsistency? It was, I am persuaded, because he was intensely anxious to get back to reality without apparently troubling to ask himself the question what reality really was. "Our great difficulty," he says, "is lack of spontaneous agreement," and then he goes on to say, "The only agreement that seems possible is agreement on a scientific basis, on an endeavor after perfect structural efficiency. If we could agree on this we need not trouble about beauty, for that would take care of itself. . . . Experiment must be brought back once again to the center of architecture, and architects must be trained as engineers are trained." The question that will occur to us is—if beauty will come naturally if it is left to take care of itself, how is it that engineers, who never think about it, do not invariably produce beautiful work. There can be but one answer—that beauty results when the esthetic sense is alive but not when it is dead. If it is sufficiently alive we do not think about it, for it becomes instinctive. But if it is not alive the only way to awaken it is to keep thinking about it, and so we are back at the old problem again: How to revive the architectural sense; how to make it sufficiently alive that it may be instinctive again. And this, I conclude, will be possible only when it is intellectually as well as emotionally comprehended. Professor Lethaby, therefore, in asking us to turn our backs on esthetics and to put our trust in engineering, evades the whole problem. Moreover, if he can promise a future to ferro-concrete as a basis of architecture, he must answer the question why the Romans cased their concrete construction in brick and stone, and how it was that when architecture sprang into life again after the Roman decline under the auspices of the Byzantine School of building, the esthetic possibilities of concrete were not exploited. Why did the Byzantine builders reserve concrete for the unseen parts and use the ordinary building materials for architectural embellishment. There can be but one answer. The Byzantine builders based their architectural treatment upon such organic materials as brick, stone, marble, and mosaic because they felt, as we do, the utter impossibility of getting a new style of architecture out of concrete monolithic construction, and they did not hesitate in the matter because they were in a position to exercise freedom of choice. Neither should we hesitate if we had the same freedom. We only entertain the idea of using concrete because we are losing our independence—that is for economic and not for architectural reasons. It appears to me that architecture is essentially the art of building with blocks, and its development depends upon a recognition of the limitations that particular materials impose. Remove the limitation due to the particular nature and actual dimensions in which such materials are obtainable, and the esthetic basis of architecture disappears, because, when materials are used that require cast-

ing, the form does not grow up from within, as it were, by obedience to the necessities of construction, but must be superimposed upon it from without. The result is that architectural form in such a material as concrete becomes a mere abstraction, and is as incapable of arousing the building interest to which Professor Lethaby looks forward, as abstract logic is of arousing the emotions.

I said that when cast materials are used the form does not grow up from within but must be superimposed from without. This fact controverts Professor Lethaby's contention that a new architecture will appear when architects become as skilled in mathematics as engineers. In this connection he is again unfortunate in the evidence he brings in support of his theory. He asks us to admire the engineering works of France, Germany, and Switzerland, pointing to them as evidence of the fine results obtainable by working upon such lines. As a matter of fact they prove nothing of the kind, for they are works of collaboration between architects and engineers. What happens there is something of this kind. The architect makes a design and the engineer comes along and adjusts the design to his calculations. Thus it appears that the form does not emanate from the calculations, but, if anything, the reverse. Further, only the main parts of the construction do any actual work. The various kinds of lattice fillings with which continental engineering is embellished are not at all necessitated by structural needs, but are decoration pure and simple masquerading as construction. In fact, when we get at the bottom of it, we find the work is done by a class of men and by methods which Professor Lethaby condemns.

So far the arguments I have used against the assumption that architecture is bound up with the future of engineering have been more or less technical. There are, however, spiritual differences between architecture and engineering that are not to be ignored. Their aims are different. We may distinguish between them by saying that whereas engineering aims at securing its results with the utmost economy of means, architecture has no such aim. Economy in architecture is invariably a necessity; it is never an aim, for architecture only becomes really impressive when it exhibits an excess of strength, when it is massive, prodigal, and lavish in the use of materials. Reinforced concrete walls four inches thick can never be as impressive as stone or brick walls four feet thick. There is no getting behind the fact that beyond a certain point, the more scientific construction becomes the less it has to say for itself in the terms of architecture.

Architecture and Construction

Considerations of this kind lead me to the conclusion that architecture and good construction are not finally the same thing, for though good construction coincides with architecture at many points, they yet follow different laws. It is because of this that good construction is an insufficient guide to architectural esthetics. In one sense it can be said that architecture is the end, construction the means. Construction can never be an end in itself. If you construct, you must construct for some purpose, and, so far as I can see, there are finally only two purposes for which it is possible to construct: The first is for a utilitarian end; the second for an esthetic end. These are the two poles between which construction moves; the utilitarian end tends toward engineering, the esthetic toward architecture. The grandeur and proportions of a Gothic cathedral are not determined by utilitarian but by esthetic considerations, since only an esthetic motive could have brought them into existence. When, as today, this motive is missing, the cathedral shrinks into a tin tabernacle. If therefore we disparage esthetics and exalt utility, we do not encourage architecture but engineering; not art but mathematics. We exalt construction, which should be the servant of architecture, into the master; we exalt secondary over primary considerations, and that brings about confusion, for whereas secondary aims find their place in subordination to primary ones, primary aims come to be entirely neglected when secondary ones are stressed. "Constructive science is a useful slave, perhaps a natural ally, but certainly a blind master."

We are, perhaps, now in a position to put our finger on the weakness of the vernacular movement in architecture—a weakness that was present from the very beginning but which only became exposed when economic difficulties overcame it. The movement subsisted on a number of architectural habits acquired in pre-craft days, on scraps of tradition, on caprices and prejudices and a philosophy that crumbled to pieces when the testing-time came. But there was a deeper reason for the failure. The movement challenged the industrial system, while it was only half conscious of the fact, and, as it was insufficiently equipped for so gigantic a struggle, it became a house divided against itself when it got at close quarters with the enemy. It challenged the system, moreover, single-handed, for there was at the time no popular movement to support it as was the case with the Gothic revivalists who found a public in the Anglo-Catholic movement. But though the vernacular revivalists were defeated, their instincts were true, as is proved by the fact that the industrial system which they challenged from without now shows every sign of collapsing from within. And because the instincts of the movement were sound, there is no reason to believe its defeat is final, but that it will be born again with a more adequate philosophy under more favorable auspices.

The American Academy in Rome

PROFESSOR MUÑOZ'S LECTURES

ON December 8, 15, and 22 last, Prof. Antonio Muñoz, of the University of Rome, and the Government Superintendent of the Monuments of the Province of Rome, gave three conferences for members of the American Academy in Rome, on the churches of Santa Sabina, I Quattro Coronati, and Santi Nereo ed Achilleo. Although in recent years Professor Muñoz has devoted much time to the study of the baroque style, he is, perhaps, better known as a profound student of the early Christian and Byzantine periods, and especially of the monuments of Rome from the earliest Christian time to the dawn of the Renaissance. In the latter capacity he was entrusted by the Government with the restoration of three of the most interesting of the early Roman basilicas. His restorations were masterly, renewing as far as possible the ancient aspect and character of the buildings, yet maintaining a scrupulous respect for any important details of later periods which happened to be incorporated with the ancient buildings. Equally masterly were the published accounts of the excavations and restorations, and the students of the American Academy were peculiarly fortunate in being able to review on the spot the exhaustive researches of one of the most eminent scholars of medieval art.

Santa Sabina

The first conference was on Santa Sabina. This basilica, as an existing mosaic records, was founded in the time of Pope Celestine I (422–32). A passage in the Liber Pontificalis proves that it was finished by Sixtus III (432–40). Leo III (795–816) restored and enriched the church, and subsequently the building was embellished by a number of popes. In 1222 the basilica was made over to the Dominican order by Honorius III. A new period of work was inaugurated by Sixtus V (1585–90). An exact description of this work and the condition of the basilica appears in the *Libro di tutta la spesa fatta da N. S. Papa Sisto V a Santa Sabina*, an account compiled by Sixtus' architect, Domenico Fontana, to exculpate himself from the charge of peculation during his custody of the restoration. It was this account, giving the most exact dimensions of every detail, which enabled Professor Muñoz to make his restorations with such scientific accuracy.

For the many interesting discoveries made by Professor Muñoz one must refer the reader to his book on the church, but some deserve special mention even in so brief an account as this. For example, the tracery in early Christian windows had long been a puzzle to archeologists. Before the restoration there appeared only three windows, filled with glass, on either side of the nave of Santa Sabina, but Professor Muñoz discovered traces of others beneath the plaster walls of the clerestory. Removing the plaster he found the windows, many of them retaining large fragments of the ancient tracery and filling, composed of selenite. This material may be used in opaque form for tracery, and in thin, transparent sheets in lieu of glass. At only a fraction of the cost necessary for glazing, Professor Muñoz restored all the windows with selenite, and the church is now flooded with the particularly beautiful light which filters through that material. Another interesting detail was the evidence of a flat ceiling, hiding the timber trussing of the roof. Supports for a ceiling at the ends of the church, openings obviously designed to enable persons to enter between the ceiling and the gable roof, and the absence of any decoration in the triangle between the ceiling and the gable roof against the triumphal arch, a space which would have been hidden from the floor by the ceiling, prove the falsity of the statement, so often made, that the flat ceiling is a late feature in the Christian basilica. Fragments of the *schola cantorum* were found in sufficient numbers to enable Professor Muñoz to piece them together and supply the gaps with modern slabs carved to supplement the old designs. Other details, like the altar and the iconostasis, were restored with absolute fidelity by means of Fontana's descriptions. In short, Santa Sabina today will give the student a more perfect idea than any other building of the appearance of an early Christian basilica.

I Santi Quattro Coronati

The second conference was on the Santi Quattro Coronati. This basilica could not be restored with anything like the completeness of Santa Sabina. A church existed on the site in the fourth or fifth century, but no trace of it remains. It was restored by Honorius I in the seventh century, by Adrian I in the eighth, and practically reconstructed in the ninth by Leo IV, who had been a priest in the church. It remained in this state until the eleventh century, when it was almost wholly destroyed in the sack of Rome by Robert Guiscard. Pascal II began in 1116 to excavate on the site, and, finding two sarcophagi with relics, he commenced the reconstruction of the church on a smaller scale (*minoribus spaziis*).

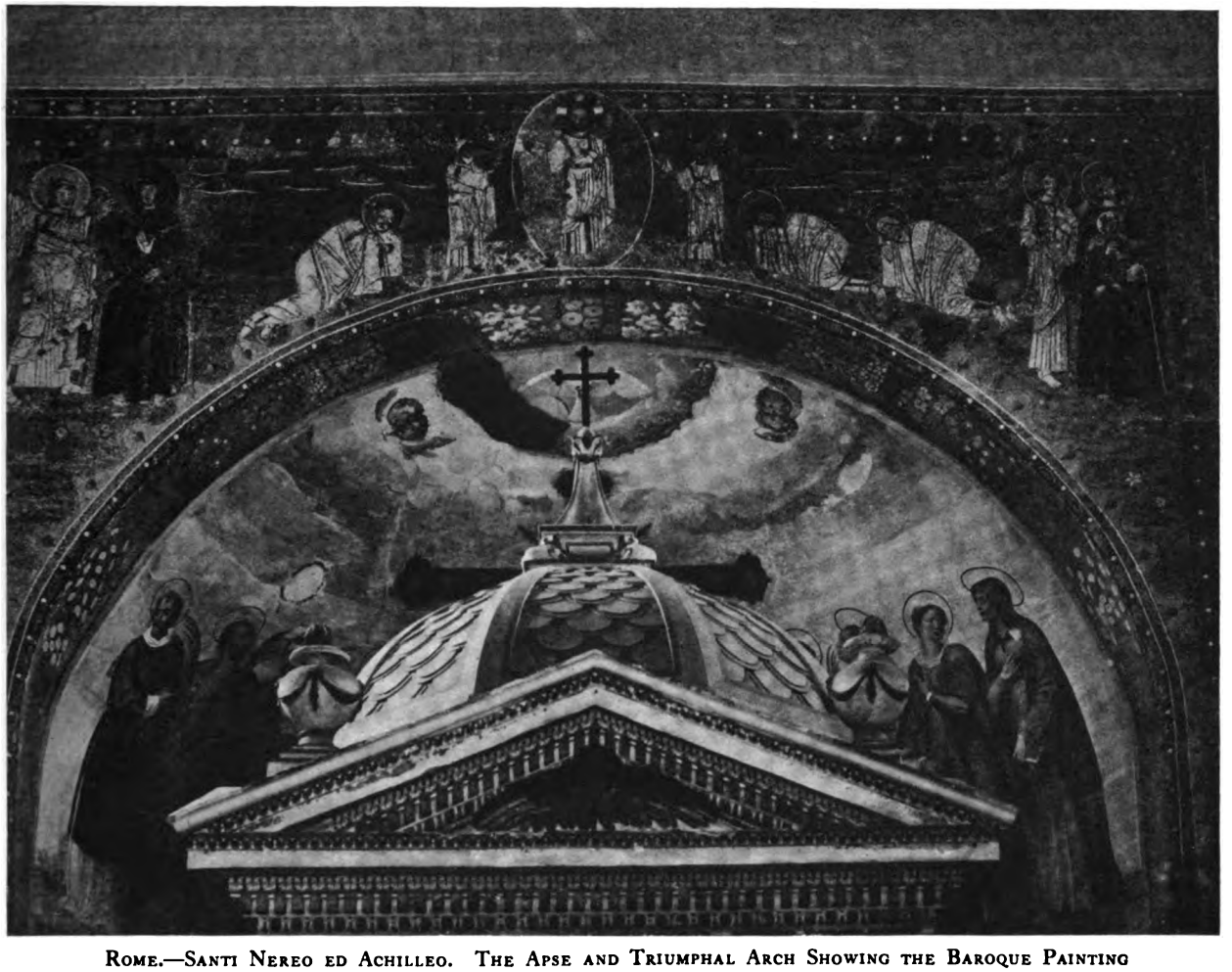
ROME.—SANTA SABINA. INTERIOR OF THE BASILICA AFTER RESTORATION

This statement gave Professor Muñoz his clue in the study of the building. Since the present apse, embracing both nave and aisles, is out of proportion to the rest of the church, it seemed reasonable to suppose that the original church had a nave as wide as the present nave and aisles. Excavations in the present wall proved this by laying bare the columns, still *in situ*, which once separated the ancient nave from the aisles. The present church has two atria, and Professor Muñoz suspected that the ancient nave was extended to cover what is now the second atrium. Sockets in the exterior walls, not only of the church but of the present atrium, designed to take the timbers of the lean-to aisle roof, proved this to be a fact. The present interesting gallery over the side aisles thus belongs to the period of Pascal II. Excavation also revealed that the present floor is higher than that in Leo's time, and the irregular rise toward the sanctuary is explained by earlier steps which have disappeared. As in Santa Sabina there was a flat ceiling, as early as the ninth century, hiding the timber roof.

The cloisters are much later, dating probably from about 1220. Professor Muñoz identified them as by the designer of the interesting cloister of Sassovivo, near Foligno, and a document later discovered proved his deduction correct. Excavations in the cloister uncovered the aisle wall of the ancient church, and the exterior walls of the present building revealed many marks which established the dimensions and system of fenestration of the old basilica. Although it was not physically possible to restore the Santi Quattro Coronati as Santa Sabina was restored, thanks to Professor Muñoz one can make a faithful visual image of the ancient church, and an architect might make an almost exact reproduction.

Santi Nereo ed Achilleo

The work at Santi Nereo ed Achilleo is not yet complete. A document proves that a church existed on the site as early as 336, but it was restored and perhaps completely reconstructed by Leo III at the end of the eighth century. In the fifteenth century it underwent another restoration, during the ponti-



ROME.—SANTI NEREO ED ACHILLEO. THE APSE AND TRIUMPHAL ARCH SHOWING THE BAROQUE PAINTING AND THE EIGHTH CENTURY MOSAIC

ficate of Sixtus IV, which accounts for a number of beautiful early Renaissance details, and finally, in 1596, it was once more thoroughly restored by Cardinal Baronius. Reconstructions have destroyed many of the decorations of the ancient basilica, but, as at I Quattro Coronati, Professor Muñoz has unearthed enough data to give an accurate knowledge of its appearance. Bits of wall on the exterior prove that the fourth century church was longer than the present one. The apsidal mosaic is replaced by a baroque painting of the "Triumph of the Cross" which may follow the general arrangement of the lost mosaic, but over the triumphal arch there still remains the mosaic of the eighth century, representing the "Transfiguration" with the "Annunciation" and the "Madonna Enthroned." Technical points, like the elongated proportion of the figures, such as one finds in the Codex Siriacus of the Laurentian Library, the blue sky background instead of gold, and the general lack of classical feeling, prove that this mosaic was executed by oriental artists. Many of the details of the building were obviously gathered from other monuments, some medieval, and some classical. Thus the fragments of the "Iconostasis," a work of the Cosmati, came from San Silvestro in Capite, and the cornice is composed of classic fragments. The interesting ambone is borne on a huge porphyry base of classic design which must have come from the neighboring Baths of Caracalla. The present church has no ceiling, but the design of the mosaic proves that, as at Santa Sabina and I Quattro Coronati, the original church had a flat ceiling which concealed the timbers of the roof.

It is to be hoped that in succeeding years Professor Muñoz will continue his special conferences for the American Academy, and thus add one more to the many opportunities which the students have to study the monuments of antiquity under the guidance of scholars who have made them the subject of the most modern research.

G. H. EDGELL,
The American Academy in Rome.

British Housing Notes

From London press reports we quote the following:

"The Ministry of Health has just issued a series of regulations governing the payment of the new building subsidy.

Four Bedrooms Maximum

"When houses are completed within this longer period, the Minister may, unless he is satisfied that the delay is unavoidable, subject the grant to a reduction of one-twelfth for each month's delay. The subsidy is to be £160, £140 or £130 per house, according to the number of rooms and the extent of floor area. If the house is built of a material for which the Ministry of Health would not sanction a loan by a local authority for a period exceeding forty years, the amount of grant per house will be reduced by one-third and no grant will be made in respect of any house which has more than four bedrooms or a superficial floor area in excess of 1,400 feet.

Eight to the Acre

"One of the most important provisions of the new regulations is that in agricultural areas the number of these houses must not exceed eight to the acre. In other areas the standard should be twelve houses to the acre, but on land partly developed it will be within the discretion of the local authority to allow a larger number, not exceeding twenty. As to specifications for houses, the Ministry states that it is of the spirit of the regulations that as much latitude and freedom of action shall be allowed as is consistent with sound and sanitary principles of construction.

Rents of New Houses

" 'Unless we make up our minds that the rent to be charged for the houses which are being built today shall be an economic one we shall condemn housing to a bog of stagnation for a generation,' said Dr. Addison.

" 'In the first place, one-third of the price of the house should be written off as extra war cost, and the aim should be that at the end of seven years the rent accruing from the house should represent an economic return on the remaining two-thirds.'

"One authority had been extremely anxious on this point, as many of the houses in the locality had very low rents. He had instructed them to charge at least 3s. a week more for the new houses of similar accommodation, and at the end of fifteen months the tenants must expect the rent to be raised a further 2s. 6d. 'This is hard doctrine, but it is essential. Otherwise we shall be simply subsidising wages as well as houses.'

"This principle, he said, must apply to rural areas as well as urban. Many of the contracts for houses in rural areas were let at £550. If one-third of this sum were written off they would still have something like £370 from which they must look for an economic return. This meant that finally these rural houses must produce 8s. or 9s. a week, and he thought that 6s. or 7s. was the minimum at which they could begin.

" 'I see no reason,' concluded Dr. Addison, 'why the people should not have wages that are sufficient to enable them to pay a proper rent for the houses they inhabit.' "

A New Garden City

The new houses that are to be built in the Garden City, which will be situated between Hatfield and Welwyn, will cost about £900 each to build. It is expected that the rent will be about £35 a year. This includes the cost of all repairs, but is exclusive of rates and taxes. Government loans and subsidies provide approximately three-quarters of the building cost of each house. The Society responsible has, therefore, to obtain one-quarter, which is done by asking each member to subscribe for two hundred £1 shares. The members of the Society will become tenants, paying an annual rent, but will have absolute security of tenure. It is hoped that before long it will be possible for members to buy their houses.

New Plans Demanded from Manchester

The progress of housing in Manchester has received a severe check from an unexpected quarter. The Ministry of Health had already approved of the plans of twenty-four types of houses proposed to be built in Manchester. On those approved plans contracts had been let, and a number of houses, including about 300 on the Blackley estate, had been built. Some are in course of erection.

The Ministry has now intimated that the designs are too expensive, and can no longer be approved for the purpose of any future contracts. This decision, if it is adhered to, means that the beginning of building on a large scale may be very seriously delayed.

It has taken the Housing Committee many months to select desirable types of houses, and to have the plans prepared and approved by the Ministry of Health. Should these plans now be scrapped, the work of selection, preparation, and approval must be begun over again. At the moment it is impossible to say what has prompted the Ministry to revoke its approval, or to regard as too expensive today what was apparently a reasonable price one, two, or even six months ago.

Cheaper Houses Suggested

A special representative from the Ministry of Health has been in Manchester endeavoring to come to an agreement with the Housing Committee upon a cheaper type of dwelling, but he has been unable to convince the Committee that any alteration is either necessary or desirable.

In order to bring back the supply of houses to the same level in relation to the population as it was in the last census year (1911) it is estimated that 17,000 houses are required in Manchester. In addition to this, 2,500 houses are needed every year to meet the normal increase in the population and to replace dwellings which have been closed. If the existing deficiency is to be cleared off in four years, 4,250 houses will have to be built every year, in addition to the normal requirements of 2,500, making an annual total of 6,750.—*Manchester Guardian.*

Small Chateau near Fort de St. Menge, France

Hunting Lodge at Chalindrey, Haute Marne, France
After water-color drawings by Walter Swindell Davis, Army Engineer School, Camouflage Section, A. E. F.,
Fort de St. Menge, France

The Société des Architectes Diplômés—Paris

EXTRACTS FROM THE ANNUAL REPORT OF THE ADMINISTRATIVE COUNCIL

"WE NOTE with great joy the enrollment under the flag of the S. A. D. G., of sixty-seven young comrades bringing their youth, their ardor, and their activity, their desire to collaborate usefully in the work of the Society. In order that this collaboration can be effected, it is desirable that some of them should be elected to the administrative council. Not that they should supplant those older members who have by their activity contributed to the greatness and the prosperity of the Society, but that they may bring to the work of the S. A. D. G new ideas—daring ones, perhaps, gushing with new blood, ripened by the experiences of a war without equal. These ideas, directed by the experience of the older members, the presence of whom on our council is rigorously indispensable, will give to their discussions a new attraction and a new vigor. From such a collaboration between elements which differ only in the question of age, the ideal of which is directed toward the same goal, our profession will certainly profit greatly."

EXTRACTS FROM THE RETIRING ADDRESS OF JACQUES HERMANT, PRESIDENT S. A. D. G.

"In a new situation new men are necessary. All those who have fought for France, who have suffered, have won, come back today among us and take their turn at the helm, transfusing into the Society a little of the generous blood which they have given with such prodigality, and with new brains adapt themselves to the new tasks with all the ardor of youth and of newcomers. . . .

"Three of our comrades have been called to occupy important chairs in the Ecole des Beaux Arts. Jaussely has been named professor of the course in the general history of architecture, replacing M. Magne, deceased. Pontremoli and André have been named chefs d'ateliers d'architecture, replacing Bernier and de Paulin, deceased. I count upon them to aid us in the efforts which I hope we shall soon undertake toward obtaining a profound reform in teaching in our school, which also has need of rejuvenated methods to adapt itself to the new necessities of science and construction, while always throwing safeguards around that teaching of art and composition which have won for it its reputation throughout the entire world and which it would not be wise to meddle with.

"Permit the President, who is about to leave you and who during these years has suffered very much from the insufficient means of action placed at his disposal, to speak to you once more. If we would be great and strong, it is necessary for all of us to persuade ourselves that by solidarity, by sacrifice, and by formal willingness to support and aid each other, to support strongly the Society in increasing its resources by all possible means so that we shall one day become a powerful group able to impose our opinions upon the decisions of public bodies. Could I give you a better example than what happened last June on the question of determining the fees for preparing the reports of damage in the liberated regions and the creation of a system of payments in advance to architects? You all know, for you have all suffered, how grave was the question for those of our comrades who had undertaken this herculean task of estimating the value of damages to buildings caused by the savagery of the enemy and by the bitterness of the combats through which he was driven from France. While we were fighting to secure an efficient tariff justly and strictly remunerative which should cut short the exploitation to which the inhabitants of the liberated regions were exposed, we devoted our efforts toward the creation of a federation of the societies of French architects, and we finally succeeded, after two years of struggle against incomprehensible opposition, in obtaining its constitution on March 24, 1919. Its first act, the only one, alas, that it has so far accomplished, was the establishment of a schedule of fees for estimating war damages. This schedule was approved in the General Assembly of June 24, 1919, was immediately submitted to the Minister of the Liberated Regions who wished, after having had it examined by his assistants, to submit it to the technical consulting committee of the Ministry, in order to have it finally approved. In the end, he asked us simply to edit the text ourselves, expressing his will to use our edition without changing a period or comma. Where can we find a better justification for that cohesion of which I have just spoken to you? It was because some of us had the courage to consecrate ourselves to the work that the federation was born, and it was because of its existence that from the first moment it was able to achieve a result which had been sought for over a year, and it can achieve other results whenever it is willing to take the trouble.

"One other example of the force of association: We founded last year an affiliation of architects and contractors, —the Office of Building and Public Works—for studying the reconstruction of buildings in the liberated regions. This affiliation is today the tie that binds societies of architects to the syndicates of contractors formed by the Federation of French Architectural Societies and the National Federation of Building and Public Works. Constituted fifteen months ago, it assembled in November, 1919, in solemn council, and elaborated a complete program of methods to be employed for assuring the reconstruction of our devastated provinces. It suggested certain laws for the creation of an office of materials and for a schedule of wages which were unanimously voted by the Chamber of Deputies but which were blocked in the Senate by interested opposition, of which I can here give no explanation. This situation lasted a year, and the Minister of Liberated Regions, not having followed our counsels, you all know only too well the conditions of that period from the point of view of construction. It was an absolute paralysis except for those

who had sufficient financial means to enable them to go to any expense for procuring materials and labor. Actual result: A general rise in the cost of construction of between 400 and 700 per cent over the prices of 1914.

"The Office of Building and Public Works did not give up. It believed that the arrival of a new Minister, celebrated for his executive qualities and insensible to certain influences, would permit it to again expose its ideas. Twice our suggestions were examined by the Minister with all the care which was their due, and I hope that we have now finally convinced him that our program is the only reasonable one and the only one capable of assuring the possibility of undertaking reconstruction work in 1920.

"But, during the course of our efforts, M. Tardieu asked us a question which caused us some embarrassment. He said: 'Gentlemen, are you in a position to impose upon your members the responsibility for the program which you have drawn up. Have you the means to constrain them?' And we were obliged to reply: 'No, we are organized under the law of 1901 and some of the others under the law of 1884. We have no power to impose our decisions. You alone can do that.' Unhappily, this was true. We are strong enough to persuade an acceptance of the value of ideas by public powers because we have created federations which are imposing through their numbers. We are listened to. Account is taken of our advice which is, altogether, a good deal. But how much stronger we would be if, knowing how to submit ourselves to the voluntary and accepted discipline, we could place ourselves resolutely under the orders of chiefs and be willing to impose upon ourselves the obligation of blindly conforming to their decisions.

"If France triumphed it was because the Allies, at the moment of peril, felt the necessity of bowing before the incontestable superiority of their chiefs and of ranging themselves under their orders. If the treaty of peace is not what it should have been, it is because, the danger passed, the same Allies began again to occupy themselves only with their personal interests. These great facts, which will long dominate the history of the world, lead us to a principle which belongs to all periods and which is as applicable to little things as to big ones. It is that the unity of direction of voluntarily disciplined effort is the only way to come to the end of a difficult task. The day when the one-time scholars of the Ecole des Beaux Arts, holders of the diploma, will to do it, this Society will take that rank to which it is doubly entitled by reason of the artistic and scientific qualities of its members. Therefore we must salute with joy the two works of solidarity created this year and the beneficial effects of which we should witness the development in 1920.

"I speak of the Federation of French Architectural Societies and of the *Coöpérative d'Architectes Diplomés par le Gouvernement*. The Federation has shown, it is true, a certain slowness and certain indecision in its beginnings. Its action does not indicate perhaps all the authority that is expected from it. Its council assembles too infrequently, and one is inclined to think that this organization requires serious amelioration. This will be possible only when, possessed of sufficient funds, it will begin to take its place at our head on all inter-social questions. Let us hope that the year 1920 will see its beneficent action extended and amplified, for we expect much from it, and we will energetically support it in all that it tries to do for the welfare of our Society.

"The *Coöpérative d'Architectes Diplomés par le Gouvernement* was founded on April 12, 1919, and since that time its office and its council have worked without cessation to support and direct individual efforts, in order to group them so that they might give unity and also to furnish them with innumerable particulars, of which our comrades had need, on questions infinitely diverse and which revealed themselves from moment to moment. Up to this time it has not been able to attain its entire program for two reasons. These should be explained in order that you may understand the modifications which the Coöpérative may perhaps have to introduce into its interior organization.

"The original plan of the Coöpérative was designed to permit the hypothecation in some manner of the commissions accruing from clients who were, of course, unable to pay them promptly in the case of works of reconstruction.

[NOTE.—It was proposed, as readers of the Journal will remember, that the architects of America, for example, subscribe to a fund, the proceeds of which would be lent to French architects as against their accruing commissions. M. Hermant here explains that this became unnecessary as the Government anticipated the responsibility of making payments against the claims for damages to the clients Also it will be remembered that the program of the Coopérative provided for the creation of a joint draughting-room in order that architects might be spared the expense of setting up their individual offices. This likewise became unnecessary, as M. Hermant points out, because the prepayment of commissions by the state permitted architects to organize their own individual offices and also because the work of reconstruction has been greatly retarded through difficulties of material, labor, and money.]

"The reconstruction of the liberated regions is a Protean work so new and so uncertain in its methods of action that the conditions under which it shall be executed vary from one month to another and will continue to vary following the lessons of experience. Also, we should not hesitate at any change the moment it has become recognized as necessary. For my part, I ardently hope that the Coöpérative will find its way in a new orientation and be able to realize in practical and brilliant fashion the aim of solidarity and confraternity for which it was founded."

In closing, M. Hermant said: "The field of our action is so extensive as to be frightening, but it should, on the contrary, only stimulate our courage. Shall we ever attain these limits? I do not think so because we would be exceedingly embarrassed to define them. They retreat before us each year. Each year brings us new and unexpected ideas and places before those who have the task of presiding over our social and professional development new problems. But, looking back no farther than the last eighteen years, one has the right to predict that before eighteen more years have passed many of those now here will see our Society brilliant and triumphant, strong through its 2,000 or 3,000 members, and imposing itself on the respect of all through the high valor of its members, their fine professional idealism, and the radiance of their talents."

The Draughtsman's Page

GEORGE BAIN CUMMINGS, Associate Editor

THE PROGRESS OF THE DRAUGHTSMEN'S UNION IDEA, WITH PARTICULAR REFERENCE TO THE SITUATION IN NEW YORK CITY

THE tendency of men to organize is a familiar social phenomenon. From time out of mind, people have been what Elbert Hubbard called "Jiners." The tendency of architectural draughtsmen to organize i , therefore, not to be regarded as something unique in itself. Moreover, for many years there have been in this country organizations composed entirely or partly of draughtsmen.

It is only in comparatively recent times that there have been draughtsmen to organize. It is not so very long ago that the architect practised without assistance, as the doctor and lawyer did. The more successful men attracted young students of architecture who became apprenticed to them; and, as population and wealth increased and the architect gained in professional stature, the demand for such instruction grew. Then, as the colleges undertook to afford training in architecture, there came to be produced an annual crop of fledgling architects, instructed in the theory but inexperienced in the practice of the profession. These men must needs work with an established architect before attempting to practice independently. As these apprentices and college men became proficient, the architect was enabled by their assistance to undertake more work than he could formerly have handled unaided. And thus was opened up the vista toward large architectural organizations and specialization, which are with us today.

While, originally, all architects' assistants were architects-in-the-making and were working with independent practice in view, latterly not a few seem satisfied with, or even desirous of, making draughting their life-work. And thus has grown up finally a definite, employee class of draughtsmen.

As has been stated, there have been, and are, many organizations of draughtsmen, or to which draughtsmen are admitted. Up to comparatively recent times the purpose of such organizations has generally been to improve the skill of the members in their art, or the quality of their service to society, or the status of the profession. Such was the purpose of the ateliers, of the Architectural League of America, and similar local and national organizations. A recent addition to the list is the New York State Association of Architects which admits draughtsmen on a basis of equality in all but a very minor particular.

Shortly prior to the entrance of the United States into the World War a movement was started by draughtsmen in New York City to form an organization which was to be both social and educational in purpose. The idea was favored by the then President of the Architectural League of New York, and was to have been launched with the aid of that society. It seems a pity that this organization did not become permanently established, for it marked a real coöperative effort, initiated by the draughtsmen and favored by the architects, to organize the former for the benefit of all concerned. But the war interrupted this movement.

With the war over and the world attempting to reconstruct itself, we next hear of draughtsmen's organizations from the West. From San Francisco, from Chicago, from Indianapolis and other cities, came reports of draughtsmen organizing. But a new kind of organization was announced, having other purposes than those of the societies to which we have been referring. In general, these purposes were those of organized labor. In short, the draughtsmen had formed unions! There has been no mistaking the movement. It is all there, including the union label on drawings. It has progressed rapidly eastward, and in New York City there is the union of technical men, to which as yet not many draughtsmen other than those holding civil service positions belong. I am told that this is not the first attempt at unionism among the New York City draughtsmen. In the early days of trade unionism organizing was attempted, but without arousing any degree of interest among the draughtsmen. But now the situation is different.

The significant thing to be noted is the economic basis of these latter-day organizations. It is a natural product of the situation noted earlier in this article, that there has grown up a definite employee class of draughtsmen, men who do not hope or do not even want to practise architecture independently.

What promises to be the most important development in this movement in New York City is the organizing of a new society in which a determined effort is being made to serve the interest of all draughtsmen, without entering the fold of organized labor on the one hand, or becoming controlled by the employing architects on the other. The idea of such an organization seems to have come simultaneously from two groups who got together somewhat more than a year ago.

As a first step this nucleus drafted the following letter, addressed to the American Institute of Architects and sent to the Nashville Convention of 1919:—

Foreword

"There has been considerable worriment among the architectural workers, due to a wide movement on foot to enroll the members of this profession in the ranks of the American Federation of Labor. It is felt that this problem can only be attacked by a mutual spirit of coöperation between the architect and his employees to prevent, in a short space of time, the workers of the architectural profession affiliating with other branches of labor unions.

"The American Institute has appointed a Post-War Committee on Architectural Practice, and it is believed that one of the most vital problems to be considered is in connection with the employees.

"The average draughtsman goes from office to office, receiving less for his knowledge than the average worker on the building. If he is fortunate in knowing a goodly number of fellow draughtsmen, he has a better chance of securing a satisfactory position.

"With those thoughts in mind, as well as having a sincere desire to elevate the profession by means of coöperation between the various branches of the architectural world, the following letter is addressed to:

"American Institute of Architects,
In National Convention April 30 to May 2, 1919,
Hermitage Hotel, Nashville, Tenn.

"*Gentlemen:*—The nucleus of a mutual coöperative organization amongst architects and employees, called for the want of a better name at present 'The Architectural Society of America,' has been formed in New York, with a proposed constitution and by-laws, and respectfully submits for your consideration the following fundamental features:

Preamble

"We, men of the architectural profession, believe that the best results to be obtained by employer and employed is by a bond of common interests and a frank partnership of knowledge, experience, and good will, animated by the application of right principles and a spirit of mutual coöperation.

"To promote a higher grade of ethics and prevent improper practices in any part of the profession.

"To promote the study of architecture among the members of the association.

"To maintain club houses and ateliers for the use of the association.

"To classify all employees into grades—keeping dossiers of experience for use of employers.

"To classify architects, allowing each to determine his minimum fees.

"To amend the present method of charging fees now received by architects from their clients.

"To maintain a minimum scale of wages for all employees according to classification.

"To furnish to each architect belonging to the association a medallion or certificate of membership.

"To publish the classes and membership of each class, also any change from one class to another. Changes in classes shall not be permitted oftener than once in every . . . months.

"A distribution of profits to be made by employers on the basis of x per cent on cost of buildings to be set aside from commissions as received. This will accomplish (*a*) Coöperation and incentive, (*b*) Bonus on work done, (*c*) Entree to books.

"We believe that the present methods of examination for qualifications for an architect by state authorities do not produce in all cases the proper results.

"A system of classification of employees according to their experiences and ability will compel state and national recognition of such standards of ability, and eventually all federal, state and municipal building departments will demand that plans be filed by a recognized architect.

"In amplification of the fundamental features, we wish to say that the following benefits should be derived:

"The benefits of maintaining club houses and ateliers need no further account.

"The classification of employee members of the association is to be done in accordance with methods to be provided for in the Constitution and By-Laws. These grades of membership will be made to include all workers of the architectural profession according to their ability and salary. By keeping dossiers of experience, the association will act as an employment bureau for the benefit of the employer and the employee.

"The present minimum fee as established by the American Institute, namely 6 per cent, because it is not mandatory, is unfair both to the architect and to his client, whereas the method hereby proposed will permit of an architect establishing his own minimum fees, which will not preclude his receiving fees higher than his minimum but will prevent his accepting work for less than his minimum fee without first having received permission of the association and a reclassification. One of the penalties suggested for an infraction of this rule is to prohibit any employee member of the association from working for the offender.

"The proposal to allow each architect to determine his own minimum fees permits of making those fees mandatory.

"The minimum scale of wages will permit of all employer members of the association employing men of the same class at the same rate.

"The distribution of profits has among other things the following features to recommend it:

"Entree to the books of the architect will expose and prohibit many improper practices. It will permit of the employee, who has served a certain number of months during the year, receiving additional remuneration for faithful and continued service. It will have a tendency of closer coöperation between employee and employer and act as an incentive to the employee to help create a larger profit for the employer. By making a distribution of profit on the same basis for all employers it will tend to obviate the practice of one architect underbidding his fellow architect for similar services.

"It is proposed to make this organization nation-wide in its scope, and it is hoped that the architects throughout the country, and those employed by them, will see and take advantage of the benefits that can be derived from a sincere and effective mutual coöperation.

"We shall be glad if you will appoint a committee who will confer with a committee to be appointed by the association, with the end in view of adopting a constitution and by-laws appropriate for the purposes to be attained."

No reply was received, nor did the architectural publications, to which copies of the letter were sent, take notice of it. The organizers of the society then decided to launch their project on a wide scale, and held a meeting to which representative draughtsmen from a number of offices were invited. At this meeting a committee was appointed to draft a letter to be sent to all the better-known offices, soliciting members. This letter read as follows:

"At a meeting held July 23, 1919, it was unanimously agreed to form an organization of all branches of architectural employees. This organization is to be known as the Architectural Society of America.

"Briefly the following are the general purposes of the organization:

"1. To safeguard the profession against the inroads of other than bona-fide architects, thereby safeguarding the future of the profession.

(NOTE.—Approximately 98 per cent of the architecture done today is carried out by others than bona-fide architects.)

"2. To be a force to direct the trend of legislation that controls our profession in practice.

"3. To eliminate the improper practices now existing in the architectural profession.

"4. To maintain a standard of remuneration commensurate with economic conditions.

"5. To formulate and maintain a standard of ethics for relationship between employees and employer.

"6. To bring to the attention of the potential architect the qualifications which he must possess to practise the profession.

"7. To bring to the lay mind a realization of the proper field and scope of the architect.

"Are you interested in the future of the profession and your own future?

"If you are, talk this over with your architectural friends and bring your ideas with you to a meeting to be held," etc.

As a result of this invitation a meeting was held at which was evinced considerable interest in the movement. A constitution committee was elected and at a subsequent meeting submitted an instrument for a national organization with state and local Chapters. Action is still pending on this document, which is being vigorously debated.

As this society has grown, the architects have become alive to the situation and have seen the necessity of understanding the movement and coöperating with it. At a recent meeting of the New York Chapter of the Institute the draughtsmen's organization was invited to send a delegation to give information about the movement. This was done with the result that the architects appointed a committee of fifteen—five each from the New York Chapter of the American Institute, the Brooklyn Chapter, and the New York Society of Architects—to meet a committee of the draughtsmen, so that a basis of coöperation might be arranged. This group has met and organized a permanent committee of six architects, two each from the societies mentioned above, and six draughtsmen, members of the society. This Joint Committee is to meet shortly. In the meantime the architects have shown their desire to cooperate by offering their meeting-rooms to the society.

It is to be hoped that this movement may lead to the organization of the whole architectural vocational group along democratic lines to the end of the highest service to society.—G. B. C.

The Professional Organization Movement in the United States and in England

SINCE the Inter-Professional Conference in Detroit, in November, described in the Journal for January, the General Council of the Conference has been occupied with the preliminaries necessary to the formation of local groups, for it is through such groups that the Conference must function. Under the leadership of Dr. Ebersole, such a group has been formed in Cleveland. In Washington, a meeting of fifty men and women was held in March, preparatory to the formation of a group in that city. Plans are maturing for the formation of groups in New York City and in Philadelphia, and those interested in the work of organizing local gatherings are requested to communicate with Robert D. Kohn, Chairman of the General Council, at 56 West 45th Street, New York City.

On February 7, the representatives of more than 200,000 professional and administrative workers met in London to discuss the formation of a national federation. Some of the bodies represented are already affiliated with trades unions, but it is the hope of the organizers of this movement to lay the foundation of a real industrial alliance of workers of both hand and brain, with a resulting recognition of their interdependence as co-workers in the problems of production and distribution.

Science and the Next War

In this connection, the statement of Frederick Soddy, F. R. S., Lee's Professor of Inorganic and Physical Chemistry at the University of Oxford, is of more than ordinary moment. "The uses already made of science," said Professor Soddy, "show how necessary it is that a new social order be developed before a million times more awful powers are unleashed by man. So far the pearls of science have been cast before those who have given us in return the desolation of scientific warfare and the almost equal desolation of unscientific government. In the world that is to come the control of financiers, lawyers, politicians, and the merely possessive or acquisitive must give place to a system in which the creative elements must rule.

"Could the energy steadily diffused in the transmutation of radio-active elements be harnessed by man," he said, "and the rate of progress being made justifies the belief that some day this will be done, we would see a transformation of the standards of life incomparably beyond that brought by the harnessing of steam.

"Control by man of the atomic energy thrown off by radio-active elements—in a manner similar to the way ordinary chemical processes such as the combustion of coal are now controlled—is the vital step which science has yet to take.

"The process of radio-activity which has been going on in certain elements since the formation of the world releases a source of energy immensely greater than any yet utilized. Atomic particles are thrown off the parent

element, which slowly alters in nature according to known laws. So uranium, thorium, and radium are slowly turning into lead, and if a way is found to control the expulsion of these particles, lead, mercury or other elements could be converted into gold or other desired elements at will.

"It is a tragedy to see the splendid achievements, both of brain and brawn, of modern peoples squandered and turned to evil by rulers alien to their spirit, and owning allegiance to the standards of dead civilizations and dying beliefs. The cut-throat doctrines of the past have to be beaten out of the path of progress if the ideals of science are to make good.

"Under our present order a future achievement such as that foreshadowed simply means that in the next war life could be wiped off the globe by science as completely as wiping off a slate.

"From being starved before the war, science is now in danger of a worse fate—of being enslaved by those who seek to uphold the very system it has rendered impossible. Either individualism must give way to Socialism and co-operation between nations and with external nature must replace competition and war—or science must stop.

"Science is an actual working Socialism, communistic in its inheritance and communistic in the spirit of its application. Common ownership of the acquisitions of science is the only path of progress, the only way in which the sum total of human happiness can be augmented."

It is not uninteresting to compare these statements from a great scientist with those made by a profound militarist. In "Tanks in the Great War," a book just published in England, Brevet-Colonel J. F. C. Fuller takes occasion to point out that the first "stroke of genius" in the late war was the use of poison gas! Then he proceeds to picture the horrors of the next war in these terms: "Fast-moving tanks, equipped with tons of liquid gas, will cross the frontier and obliterate every living thing in the fields and farms, the villages and cities of the enemy's country. Whilst life is being swept away around the frontier, fleets of aëroplanes will attack the enemy's great industrial and governing centers. All these attacks will be made, at first, not against the enemy's army . . . but against the civil population, in order to compel it to accept the will of the attacker." Is this what science is for? Is it for the merciless horrors of destruction, murder, and waste that our universities exist? Is architecture merely a plaything at the mercy of chemistry? No! but science must be wrested from the hands of those who now control its use or else we must prepare for the ordeal of a holocaust of extermination. Laws and treaties will not save us. Only science, functioning truly in the service of mankind, can arrest the doom that lies before us.

Architects and the Professional Movement

Commenting upon the proposed National Federation the *Architects' Journal* (London) asks:

"What are architects going to do about the new professional union that is being formed? It is to be, of course, 'undenominational,' so to speak—an inept expression used for want of a better to imply that all denominations are included. At present the objects of the union are nebulous, but it is perfectly obvious that such a union, properly managed, could do much valuable work for the country as well as for professional men, who, with further opportunities for fraternizing, and for taking an interest in each other's work and ideals, would not only learn to understand each other better, but would be in a much better position both to assert their rights and to develop knowledge and skill in the sciences and the arts they practise and represent. There are of course clubs enough already; but in them all—except perhaps the Rotary—it is a crime to talk shop, unless one's trade happens to be politics. We gather, therefore, that architects would find it worth while to join this union, which should become a sort of focusing screen for professional ideas, or, to put the matter more ambitiously, a clearing-house for professional opinion, or a sort of mental Labor Exchange. Free exchange of views and ideas is essential to reconstruction on a sound basis; and the professional union should be of special value to the architect, who of all men ought to hobnob freely with his fellows, because it falls to him more than anyone else to translate the public mind into substantial form."

We hope that this conception of what architects might contribute to and gather from such a union will develop far beyond the point indicated in this suggestion. Whether architecture be considered an art or a science, it is an inseparable part of the whole scheme of life and it cannot be greatly bettered until art and science are recognized as the forces which should guide and direct all development in the interest and for the welfare of mankind. As mere servants of the profit-making system, architects can play but a very limited part. They are prevented from utilizing more than a fraction of their potential power. To join in any movement which will seek the rescue of science and skill from their present servile state ought to be the first impulse of any professional man who really respects his calling and knows the worth of what that calling might contribute to society were it free to function purely in the common interest. Architects know this well, although one sometimes fears that they do not wholly understand that "commercialism," the effects of which they so greatly deplore as destructive of their best powers and noblest dreams.

In the United States, the Inter-Professional Conference movement differs a good deal from that in England, where there seems to prevail a very general desire to seek a common ground with the trades union movement. That is a question later to be determined in this country.

Bearing directly on this aspect of the question, we quote from the address of President Kimball on the subject of the Inter-Professional Conference, at the annual meeting of the Nebraska Chapter:

"Theodore Roosevelt once said, 'The public never defends itself.' Whether it has ever tried to or not, I do not know," said Mr. Kimball. "Certainly, it is a simple conclusion, judging from recent history, that it does not succeed. The fact is, the public has no champion and never before had one.

"Each year throngs of well-trained young doctors, lawyers, engineers, and other highly specialized professional men and women are turned out of our educational institutions all over this land equipped to face the hardest of life's problems in their own interest, and to function for pay in

the interests of others. It is not stretching it to say that the wheels of commerce, yes of life itself, are today in the hands of the graduates of these technical schools, and that they are being professionally operated for pay. This is all quite well until there arise questions between the individual and the public, questions involving public welfare—until the young professional is forced to choose between the interests of the client who pays him and of the public to whom he is indebted for his free education.

"No reading man can have failed to recognize such situations frequently in the recent past, and none can have failed to see how completely the public is unprotected today, and how for a fee any of her free-taught children stand ready to turn their education against the very source from whence it came. Yes, and for money.

"Only yesterday I witnessed a significant example, wherein a professional man was forced to represent both himself and client in a certain matter wherein their interests clashed, and wherein his professional purity was vindicated by his unselfish care of his client, but where the public welfare was sacrificed when its protection had been the only worth-while consideration in the whole matter. It is to cure just that sort of thing, and to give a bigger and better place in society to its professional members, that the new national body of professional men and women came into being last November at Detroit.

"If any one wonders how this new instrument is to be used, and to what end, let him look to his own professional group and answer whether or no its house is in order, and if not, why not? I can answer freely for mine, 'Not in order,' and 'for lack of an effective instrument.'

"Then let him consider whether there are any professional ills that will not yield to an ethical court on which sit representatives of each professional group, and where a clean house is sought as a first professional contribution to the public's welfare."

In reading this last paragraph, I am much moved to quote from a review of Mr. Cram's "Walled Towns." The review appears in *The New Age* and was written by A. J. Penty, the well-known English architect, guildsman, and a contributor to this Journal. Those who have read "Walled Towns" will remember that Mr. Cram approaches the problems of civilization from the point of view of renunciation. Mr. Penty says: "It is difficult to pass a verdict upon 'Walled Towns,' for who can say that Mr. Cram is wrong? When I think of the magnitude of the problem that confronts us, the forces of disruption that are at work, the difficulty of securing unanimity of opinion on any except the most generalized issues, the short time that remains to us to make up our minds, the six months it takes to get any book published, even on the most urgent matters, the apparent impossibility of getting ahead of the event, I often incline to Mr. Cram's point of view, feeling that the only way is the way of withdrawal. But if such be the case, I can scarcely regard it as an alternative to the path of Bolshevism or the path of capitalist reaction for which Mr. Cram presents it. On the contrary I incline to the thought that it may follow Bolshevism, the form which the reaction against it may take. For the great need is a change in the heart and mind of man. The guild propaganda is changing the mind, but there is yet no change of heart. Perhaps that can only follow suffering. If so, Mr. Cram is right."

The organization of science, knowledge, and skill for the service of man cannot be too long delayed. There is enough of all three to change the desert of a mechanized world into a garden of healthy and happy humanized activity.

Architecture would come into its own.—C. H. W.

Architects—War Memorials—Competitions

SPEAKING at the University Club in Omaha, on the invitation of the Nebraska Chapter, Mr. H. Van Buren Magonigle said in part:

". . . After many years there has been born in this community and in this commonwealth of Nebraska a new influence. I call it a new influence because it is now an ordered and an organized influence. I refer to the organization of the Nebraska Chapter of the American Institute of Architects, of those architects in the state of Nebraska who have worked among you—a great many of them quite unknown to you—so many years, and who now, as members of the American Institute of Architects, have an opportunity to render a more complete and perfect service to your commonwealth because of the fact that they are organized and that the power of one hundred men combined is greater than the power of one man, however strong he may be, or that of one hundred men whose efforts are diffused by individual preoccupations. You may be interested to know that the membership of the Nebraska Chapter is greater in proportion to the total number of architects practising in the state than in any other state of the Union. And I appeal to you, the citizens of Omaha, members of this University Club, university-bred men, to learn to know the architects in your midst, to look upon them with new eyes, look upon them if you will in the light I have tried with great brevity to throw upon the profession of architecture and upon the ideals of that profession. Forgive us if we do not measure up to the standard we have erected and of which we all fail of accomplishment. But learn to know these men. Be as much interested in their work as you are in the work of the man who has just put through a big real estate deal; be as much interested in them as in the man who has reclaimed a part of the shifting banks of the Missouri for park purposes; be as much interested in them as you are in any of your other citizens who are doing the work of your community. They deserve it and they will repay your confidence with interest.

"I am requested to speak to you briefly upon the subject of a possible war memorial for Omaha. Some time ago I had the honor of being asked to go to Kansas City and speak to the committee of citizens on the subject of war

memorials at considerable length, and I can only give to you what I gave to them in the way of counsel. The architect is the guardian of that spirit of beauty without which no people can long exist unless they be as beasts of the field, and this spirit of beauty is, to my mind, the only proper expression of that other spirit of which, during the past four or five years, we have had such tremendous examples—the spirit of sacrifice which sent our boys across the sea. It seems to me that the movement toward community buildings as war memorials throughout the country has been a little over-enthusiastic, a little misguided. A community building, in a very small place of five or ten thousand souls, perhaps, serves very well the purpose of perpetuating in a community form and in a community center that spirit of service which distinguished our people throughout the war, but in a town of over ten or fifteen thousand the significance of that community center becomes submerged and lost. They are trying to do something of that sort in New York City. New York has five boroughs and six million people and covers an immense territory, and it is impossible, I believe, for the sentiment of the whole city to crystallize itself around a building in one borough or a structure of mere utility, however big it may be. In the course of years, the purpose for which a utilitarian building was originally built is almost invariably lost sight of, but one never forgets the purpose for which a beautiful monument was erected. But if, as I told the committee in Kansas City, one does wish to erect a building, a public library, an art museum, a community building if you please, as a memorial of the great sacrifice, there should be somewhere in the building, in the heart and kernel of the structure, some definite holy place where one may stand and say, "This represents what our people feel in respect to that sacrifice." The danger is in the dissipation, by all the eminently necessary functions of a community building, of the central thought which should be in everyone's mind. And so I return again to my fundamental conviction—that it is only by and through the spirit of beauty made visible that we can really commemorate the marvelous beauty of that spirit of sacrifice which animated our boys.

"The reason I am here today is because I have the honor to be one of the architects who have been invited to compete for your State Capitol, and I have just come from a conference between the Capitol Commission, their professional advisor, Mr. Thomas R. Kimball, and the competitors, looking toward the establishment of a program which shall guide the competitors through the term of the competition. I will not go into the details of that, but as citizens of Nebraska you will be interested to know that this competition, for the first time, I think, in the history of competitions—and I think I know something about competitions, as Mr. McDonald has kindly indicated—that this competition is being run entirely upon the basis of fair play and sportsmanship. There is no restriction placed upon the competitors except their honor. There is nothing which says that one shall not make a drawing as big as one likes or render it in any way one pleases. There is no limit on the cost, no limit except one's commonsense, and that is extraordinary—nothing has ever been left to the commonsense of the competitor up to this time. And I am delighted to be able to report that the spirit exhibited at that conference is going to assure the state of Nebraska the best capitol building that has ever been built in this country. When I first saw the list of men invited to compete and realized their speed and their class I shook in my shoes. Mr. Kimball has paid the highest compliment he could possibly pay to the architects of Nebraska by inviting men of the class he has invited to compete against them in this final stage of the competition, and we are all going into this thing in the spirit Mr. Kimball has indicated he wants us to go in. He and the commissioners and competitors have met upon the same ground—the ground of service to the state—and I am going back to New York, and every other man with whom I have talked from the various parts of the country, will go back enthusiastic, to work like Trojans. We must win it, every one of us—and only one of us can. But I believe that every one of us is prepared to be just as happy as he can be under the circumstances if he loses."

The Architectural Exhibition at the Next Convention May 5, 6, 7, Washington, D. C.

The Convention Committee of the Institute is arranging to hold an exhibition of the work of members of the Chapters of the Institute. The Corcoran Art Gallery has very kindly consented to lend the space for such an exhibition, which will be viewed by a great many people, including members of the Cabinet, members of the House and Senate, Federal officials generally, and representatives of the press. It is intended to make the opening night, Wednesday, May 5, a public function of importance for which many formal invitations will be issued.

One of the plans for making this exhibition count as a useful influence on the architecture of the United States is to have the Congressional delegations from each state view the work of the architects in their constituencies.

The exhibition is being worked out through the officers of the Chapters under a plan devised by the Convention Committee. Full details of the space available to each Chapter, the character of exhibits, the cost of the exhibition (which involves only transportation charges on the part of individual exhibitors) may be had from the officers of Chapters.

Book Reviews

New Ideals in the Planning of Cities, Towns, and Villages. By John Nolen. American City Bureau, New York City, 1919.

The title raises one's hopes! It is promising. Mere "ideals" have, until recently, been sufficient to satisfy, but when "new ideals" are dangled before one it arouses curiosity. One becomes inquisitive. One wonders what old ideals have been discarded, and what can be the nature of the "new ideals" which have come to take their place. Let us see what the Preface says:

"This book on New Ideals in the Planning of Cities, Towns, and Villages was prepared and set in type as one of a series for the Overseas Army, A. E. F., by the Department of Citizenship, Army Educational Commission. The purpose of the book was "to present fundamental principles, and stimulate intelligent study of the problems of citizenship."

It is therefore that we may examine this volume, not alone from the standpoint of new ideals, but also from the standpoint of what constitutes education—for education obviously is the purpose of publication. At the outset it is fair to state that the author has brought into the small compass of 140 pages a remarkably complete and a very accurate statement of what constitutes the city-planning movement in America. The aims of the movement, the arguments in favor of city-planning, the attitude of the spokesmen of the movement, the nature and range (as conceived) of the "problems" involved, the "standards," the "fundamental principles," in a word, the habitual outlook of those interested in the movement is drawn with a very accurate hand. It is as accurate a description of what the city-planning movement stands for in America today as one could well desire.

It is true that one discovers, as one proceeds, that the author alternately blows hot and cold; there are alternate layers of a sort of hopeful pessimism and a qualified optimism which makes it somewhat difficult to come by a clear understanding of whether we are going forward or backward. One experiences, at times, that sensation which occurs when on a train with another train running at another speed upon an adjacent track; if it be dark it is difficult indeed to know which train is really going ahead. Possibly Einstein's theory of relativity may yet be used to throw light upon the actual direction of the city-planning movement. What I am trying to say, in other words, is that it is not at all clear that the city-planning movement is moving more rapidly than is a certain other movement which moves toward the accomplishment of a still more thoroughgoing condition of chaos and mal-adjustment in our urban centers. Apparently the author is not as doubtful, for in the majority of cases, where opposing tendencies or forces are considered, his optimism is sufficient to tilt the scale upon which he weighs the evidence.

But to return to a consideration of the subject matter from an educational standpoint. The book was prepared for the Overseas Army, A. E. F. It may therefore be said to have been compiled for young lay readers who are interested in the subject. As such, it raises the issue as to how may we educate our citizens to an apprehension of the value of an adequate material environment? This is a baffling question, but I am ready to venture the guess that the hoped-for result will not come about by hurling at the head of the ill-advised-in-such-matters lay citizen an entire volume of questions and problems, the simplest of which is such as to utterly baffle mature students.

What, e. g., the lay reader could get out of such a discussion as that related to "Local Data as Basis for City Plan" is a blind guess; but I opine that he would not get much out of it, for it appears to me from the reading of numerous reports relating to this particular subject that no more than a handful of those who are supposed to know all about basic data are really able to understand what "basic data" really means, let alone knowing what to do with it once it has been trapped. Our surveys of "basic data" may be likened to the pressure gauge on a boiler; we note the pressure rising; modern enterprise keeps right on stoking and producing more pressure while the vested interest sits on the safety valve. Of course this phase of the matter is not made at all clear and hence its value as education must be rated as somewhat dubious.

The chapter on "Basic Data" is typical of other chapters as regards the vast scope of subject matter dealt with. One wonders what the student or the lay reader would gain by such a general treatment of the problem. Viewed from the standpoint of what should constitute an educational process, it appears as a failure. The problem is not "developed" as the educator would say. Would it not be more in line with real education to have dealt with a single concrete situation, developing within it as many of the phases of the problem as would be afforded by the situation under consideration?

It is probably true that the general treatment, the broad statement of the situation, would give the lay reader or the advanced student an inkling of the fact that there is a "problem" involved in the adequate arrangement of our material environment. Difficulties might be vaguely realized and a nebulous picture of hoped-for results would be evoked. But, judging from the content of the volume and the dearth of evidence of a nature to sustain the conclusions, and the fact that both the "problem" and the "solution" are confined within the covers of a book, it is probable that the lay reader would learn little or nothing as to how to deal with a concrete situation or even to recognize a "problem" when one confronted him next door.

There are two reasons at least for this pessimistic assertion. No opportunity had been afforded for dealing with specific problems—nothing in reality had actually been discovered. And, of still greater importance, nothing could have been learned regarding the causes which make for the present disordered conditions. This statement may be questioned. Well! Consider this typical example of stating a situation under the "Right Way to Do It:" "Some of the underlying principles of land subdivision generally accepted as sound," . . . "The interests of the real estate operator, of the prospective owner or user, and of the general public, should be harmonized as far as possible.

In most cases this is not so difficult as it seems. While the immediate interests of the three parties are not identical, they are not in the long run normally in conflict." The interests of the cat and the mouse are not identical, and I suppose that a cosmic view of their relationship would show that they were really not in conflict. But that is not very comforting to the mouse.

This glossing over of the problem, this imputation of a teleological character to the operations of the real estate speculator, this manifest avoidance of any reference to the forces which make for congestion, is not education at all. It is a concealment of the facts of the case.

Again, one finds a very similar case under "Housing:" "From the point of view of economics—and I believe that the ultimate solution of this problem is to come mainly in that direction, housing is big business, and should be handled as big business is handled." . . . "The first step in the solution of this problem is to recognize that the subject is primarily one for the right application of broad economic principles. We must in some thoroughgoing way convert the great forces working through regular channels which now produce bad housing, to produce good housing, and we must do it by bringing into control and coöperation with them the forces that believe in good housing and will gain from it, which are mainly the manufacturing and business interests that depend upon the efficient and happy workman. This great change in housing methods will come, if it does come, from the substitution for exploitation and excessive return of the reasonable profits of business, from the transfer of housing from the field of speculation to that corresponding to legitimate manufacturing. We shall then proceed in very much the same way that the manufacturer proceeds. We shall want to know the facts as to the nature and extent of the demand. We shall have definite aims as to the product. We shall use skill and experience and factory methods. We shall back the enterprise with adequate capital and count upon a fair rate of interest." This suggestion is sufficiently broad to find acceptance by either Gary, Gompers, or Lenine. From the context I take it that it is Mr. Gary's interpretation which is implied. All this is based upon the groundwork of economic theory developed by Adam Smith. Our attitude is based upon a group of preconceptions which prevents us from viewing the problem from other than that of the classical economists.

What in the name of sense is the value of production if it does not aim primarily at producing an adequate environment for those who produce? We have hopelessly confused "business" with "production," with the result that goods have come to be simply a by-product of business enterprise.

This paragraph warrants close scrutiny. What is meant by "We must. . . . convert the great forces working through *regular channels* which now produce bad housing"? "Regular channels," I take it, refers to speculation in land, the manipulation of the money market—in a word, investment for profit—speculation. If these are to be made into beneficent forces by "conversion," we surely have some task before us. Why is it said that "the manufacturing and business interests" are "mainly the forces which will gain by it" (good housing)? A simpler statement might be: The producer and his family would mainly gain by good housing. But, unfortunately, we cannot think in other terms than "business." With business as now organized, what the producer (workman) gains by it is precisely what is left over after the aims and purposes of business have been satisfied. With respect to these economic considerations, what the city-planning and housing movement needs is a large dose of Veblenian commonsense, to counteract the humbuggery of the Adam Smith way of rationalizing.

What is meant by "substitution for exploitation" and a return to "legitimate manufacture" if it does not mean a program of *radical change?* Here I agree with the author, but what is really meant would take on quite a different character if it had been followed by a more hopeful formula than "we shall use skill and experience and factory methods."

In the range of things discussed and considered, this voiced hope of finding a substitute for "exploitation" may very well be spoken of as a "new ideal"—at least so far as the suggestion falls *within* the range of a program of city-planning action.

A substitute for exploitation! *But what does it mean?* What does it mean to Mr. Gary, to Mr. Gompers, to Mr. Foster, to Mr. Veblen, to Speaker Sweet, to Attorney General Palmer? Or what does it mean to Mr. Lloyd George, to Mr. Arthur Henderson, to Mr. J. H. Thomas, to Mr. G. D. H. Cole, to Mr. Sidney Webb, to Mr. J. A. Hobson? What to Messrs. Lenine and Trotsky? Is it a "new ideal"? It seems to me that it is a very old notion. And up to this date, the city-planning movement has sought to dodge the issue. It has referred to exploitation as a "natural force;" it has had nothing at all to say regarding how it could be curbed. It is in this respect that the volume runs true to form.

But as to education! Surely, if we may judge by the nature of the matters emphasized, and the "general" quality of the argument, it is probably true to say that the casual reader would be led into the belief that the hoped-for-results were largely to be brought about by the application, by experts, of a great variety of technical formulas.

The planning and the replanning of cities, towns and villages requires technique, it is true. But what is required far more than technique is a thoroughgoing revision of our economic and industrial system. And this revision must run in the direction of lifting production of goods right out of the field of investment for profit. It is not plain as to how this revision may be brought about, but it is very plain indeed that we shall not get very far on the road toward finding a substitute for exploitation until we create a counter force of sufficient strength to arrest the movement. What we have been clinging to in the past is the idea that if better housing could be obtained through making the industrial corporations "see the light" there would be no great harm in a little more exploitation. The trouble is that we dare not "let go" of the system.

Of course, the way is not plain, but we would be much more likely to discover the way were we to study, e. g., the social and industrial situation in Great Britain. I do not refer specifically to the programs of guild socialism nor the so-called "nationalization" schemes. I refer merely to the state of mind that has more recently developed as to what constitutes the aims of industry. Possibly England may answer the query: What may we substitute for exploitation?—F. L. A.

The Coöperative Plan of Buffalo Architects

EIGHTEEN SCHOOL BUILDINGS TO BE DESIGNED BY A VOLUNTARY ASSOCIATION OF FIFTY ARCHITECTS

THE city of Buffalo, N. Y., is preparing to construct eighteen school buildings, for which an appropriation of $8,000,000 has been made. The building program includes twelve intermediate, or junior high schools of a typical plan, three elementary schools, also of a typical plan, two additions to elementary schools, and one primary school. For carrying out the architectural work of this notable building program, the Board of Education has employed Mr. William B. Ittner, of St. Louis, as Consulting Architect, while a coöperative association of local architects, known as Associated Buffalo Architects, Incorporated, has been employed to carry out the production and supervisory service.

This Association was organized primarily for the purpose of affording the Board of Education a convenient means of utilizing the local professional talent and facilities, but it is authorized under its articles of incorporation to engage in business as architect and designer of buildings of all kinds. It is incorporated as a stock company, by which means the personal liability of the stockholders is limited, but it is, to all intents and purposes, a personal service corporation, as the stock pays no dividends, each stockholder has only one vote regardless of the number of shares held, and participation in earnings (or losses) will be apportioned on what might be called a modified membership basis, as will be explained later.

All of the thirty-five stockholders are practising architects, many of them partnerships, so that the number of individuals who are thus associated, is about fifty. The corporate business is handled by the usual officers in the usual way, except that the officers serve without pay. The governing body is a Board of Directors of seven men elected by the stockholders, and from this Board an Executive Committee of three is chosen, which Committee has direct charge of the professional operation of a central office, which has been established, and control over such architectural work as is assigned to the membership offices.

All finished plans and specifications will issue as the product of the Associated Buffalo Architects; thus individuality of the members is merged into the collective achievement of the Association as a whole. Contact of the Association with the Board of Education, the Consulting Architect, and with contractors is through the central office. The central office prepares standardized details of construction, the first or key plans of a group of similar buildings, all specifications and all engineering data, and controls all supervisory service. The membership is drawn upon for assistance in connection with the work under way in the central office and is utilized for increasing production facilities beyond the capacity of the central office by means of assigments of drafting work and design, which are done in membership offices.

The method which was adopted for establishing a fair and equable basis for the participation of thirty-five offices —large, small, and intermediate—in the work of preparing drawings and specifications for half that number of buildings, and in the compensation therefor, will be of greater interest perhaps than all the other features of this unusual undertaking. It will no doubt come as somewhat of a shock to some of our more conservative brethren to learn that fifty architects in the city of Buffalo consented to have seven of their number pass judgment upon their professional qualifications and rate them as to their estimated value in relation to a certain building project. But that is precisely what was done, and, strange to say, but few complaints followed the announcement of the ratings. The ratings were made on a percentage scale and resulted in a minimum of 10 per cent and a maximum of 90 per cent. The spirit of coöperation of all the members has been splendid, and the organization is functioning in even a more satisfactory manner than its promoters anticipated.

COMMUNICATED.

News Notes

IT IS requested that all members of the Institute, intending to visit Europe during the present year, be kind enough to communicate with the Secretary of the Institute.

THE Minnesota Chapter has voted against the proposal to organize more state societies and has submitted an alternate scheme to the Board, with the request that it be laid before the Convention for consideration.

A SPECIAL committee of the Washington State Chapter reports the possibility of organizing Chapter groups at Spokane and Yakima.

In connection with its proposed architectural exhibition, a special meeting of the Washington State Chapter voted nine in favor and five against, to solicit funds from those interested in the building industry, and that a moderate fee be charged for the entry of exhibits.

ACCORDING to reports the building operations of Canada for 1919 were double those of 1918, and the outlook is reported as very good for a great increase during the coming year.

ON April 22, the Cincinnati Chapter will celebrate the fiftieth anniversary of its incorporation, and will entertain its members and guests at dinner.

NEWS NOTES

THE first annual dinner of the Nebraska Chapter is recorded as a most happy culmination of the first year of Chapter life. President McDonald, in his annual address, referred to a list of Chapter activities of which the youngest Chapter may well be proud, and which even the oldest Chapter might envy. In addition to the assistance rendered by the Chapter to the Board of Commissioners for Douglas County and to the school authorities of Omaha, described in the last issue, there is record of the fact that the Chapter, with great unselfishness, initiated the movement for a competition for the new capitol; that it fostered a bill to incorporate professional societies, coöperated with the City Planning Commission, and (favoring the new zoning ordinance but opposing its passage in piecemeal), secured the appointment of an Advisory Board to serve with the Building Department of Omaha, on which George B. Prinz, a member of the Chapter, has been made its representative.

THE Cleveland Chapter has recommended, by formal action, that the Ohio state association be disbanded and that a new Ohio state society be formed into which may be admitted all architects who are honorable men. The Columbus Chapter has dissented from this view.

THE Pittsburgh Chapter has voted to recommend the dissolution of the Pennsylvania state association and the formation of a new state society.

THE Washington (D. C.) Chapter has made a contribution of $1 per capita, for each active member of the Chapter, to the Department of Public Works Association, and has a committee working to bring the subject before all kindred organizations and to urge them to help in its accomplishment.

Having no suffrage in Washington and no representation in Congress, the efforts of the Chapter to aid are necessarily restricted, and confined chiefly to what contributions it can make and to any beneficial publicity.

RESPONDING to suggestions from the Boston Society of Architects, the Boston Public Library has set apart a special alcove for architectural books, and a selection from the library's shelves has there been brought together under the direction of Frank A. Bourne, head of the library of the Fine Arts Department. This is a new departure in library arrangements, and the alcove is arranged not only for easy reference work on the part of architects and draughtsmen but for the general reader as well. It avoids the tedium of consulting a long and usually rather uninforming catalogue and provides a more pleasurable method of exploring the architectural field. The extent to which these shelves are used will perhaps influence changes in other fields, and may tend toward a larger general usefulness of all public libraries.

THE world is familiar with the swift changes now being wrought in many English customs. A correspondent of a London daily newspaper gives a rather graphic description of what is happening to the "stately homes of England." "They are in a bad way," says the correspondent. "The old semi-feudal times have gone, never to return, and the landlords who were good, after their kind, to everybody save poachers, Dissenters, and Radicals, are seldom able in these days either to exercise their wonted hospitality or to retain more than a part of the family home for themselves. The costs of upkeep have gone skywards almost as fast as scouting aëroplanes in wartime, while income-tax has helped landlords' property tax, tithe, and repairs to weigh very heavily upon landowners, whose rents have halved in value. Expensive as it is to live, to die is an undertaking that may well terrify the multi-millionaire; in fact, it may be said that death nowadays is a luxury for all save poor men. . . .

"I know of cases in parts of the country with which I am fairly familiar, where owners of large country houses are living in one wing or on one floor; and a great part of buildings that were once teeming with active life are now given over to darkness and cobwebs, and to rats in search of secure and comfortable houseroom. At the same time there is a considerable demand for large establishments for agricultural education, and there are plans in being at this moment for buildings that are really needed, and can only be set up at an almost prohibitive cost. Now, if the landowner who is dependent for the upkeep of an old family home on the rents he derives from agricultural land finds that his income will not approach his expenditure, he has to accept the inevitable. So, too, must the old home. It stands untenanted, and many of us know to our cost what it means to own even a small place that remains empty for some time. I think houses need human association, and that for lack of them they tend to decay, although perhaps the more prosaic and correct explanation is that when a house is in use, small defects are not allowed to becomes great ones. . . .

"Be this as it may, the needs of country education, agricultural and otherwise, might well serve to enable landowners, who are the nominal masters of great country places, to live in some less pretentious house on a more modest scale, but with a larger degree of comfort and comparative freedom from anxiety. County Councils are faced with the problem of putting up new buildings at prohibitive prices; it would suit them much better to rent large places on a basis that would be satisfactory to all parties. I believe it is a fact that there are at the present moment few County Councils in England that would not be prepared to consider very carefully indeed any offer of premises suitable for educational establishments or institutions under Government organization. It would be a pity if England were to lose any of 'her stately homes;' it would be an excellent thing for those homes, or some of them, to develop their full possibilities in the larger interests of the country they adorn."

THE architectural library of the Avery Library of Columbia University has been directly linked to the School of Architecture. William B. Dinsmoor has been appointed librarian and is also a member of the staff of the School of Architecture. The architectural library consists of some 25,000 volumes and is the largest in the United States. Mr. Dinsmoor holds a degree from the Architectural School of Harvard, has specialized in the history of architecture and art, is the author of a number of books and articles, and has pursued archeological studies in Greece.

It is said that owners of costly building-sites in London are beginning to murmur at the restrictions imposed by the building regulations, which prohibit buildings higher than 80 feet. The provision is based upon fire-hazards, we are told, since any increase in height would require new fire-fighting methods. A news report says: "A London architect, who calms public fears by professing opposition to American 'skyscrapers,' but who has all the same a strong regard for their 'magnificent architectural results,' suggests the extension of the limit to 200 feet." This would permit a sixteen-story structure, and it is pointed out that such a height would not be objectionable on the Victoria Embankment, for example. Sir Martin Conway, speaking recently at the dinner of the London Society, advocated the construction of high buildings as the only means of dealing with the increasing population of the metropolis.

"The only hope I can see for London," he said, "if it is going to spread like a hideous wen over the whole of the Home Counties, is by constructing the buildings widely and making them high. If I had my way I would knock down all the main streets, acres at a time, and in the great open spaces which would be left I would build the highest buildings it is possible to erect. I would like to see the whole of the East End laid flat and set up on end."

Sir Martin drew a picture of London containing communal buildings, thirty to forty stories in height, covering large areas and housing thousands of people. These buildings would be surrounded by spaces, and would be heated from a central source.

"Let us make London a town that people can live in," he said, "and not one which they must live outside." Garden cities necessarily accommodated only a small number of people to the acre. The effect of the continual construction of garden cities would be to multiply railways and tubes and intensify their congestion.

The National Public Works Department Association has made important progress in the past month in its campaign for better business methods in the Federal Government. The convention held in Washington on January 13 and 14 (referred to in our last issue), had a very helpful effect, as there were delegates from all over the country, the Pacific Coast and southwestern states being represented as well as the nearer states; an opportunity was presented there for the delegates to sense the attitude of their congressmen towards this measure. The results of the visit to Capitol Hill were announced on the convention floor and were quite encouraging. Very few men admitted any opposition to this measure. A great many were non-committal, but a surprisingly large number saw the big significance of the measure and endorsed it.

The real difficulty in the way, in their view, is the crowded condition of the congressional calendar, but it is believed that if sufficient pressure is brought to bear on these men from their constituents, this measure will be given precedence over others. The work of the Association then is, first, to keep up the pressure on the congressmen and senators by their constituents, and, second, to provide the necessary funds to do this. This latter question is being partially met by the individual interest of some of the larger construction firms and manufacturers who are sending in contributions ranging from $100 to $1,000 each. This, however, does not relieve the individual professional man, be he architect or engineer, from contributing in support of this measure, both by writing to his congressmen and senators and by supporting it with his money.

A general summary of the situation seems to indicate that the measure stands a very excellent chance of being enacted, but requires, during the next few months, that constant pressure be kept on individual members of Congress and that sufficient funds be provided to keep the Public Works Association going at its present speed and effectiveness. (Communicated.)

Obituary

W. S. Purdy

Elected to the Institute in 1912
Died at New York City, March 13, 1920

Edward P. Russell

Elected to the Institute in 1916
Died at Pittsburgh, Penna., January 15, 1920

Mr. Russell was born in Canton, Ohio, on Feb. 6, 1868, and was educated in the public schools. On being graduated from high school in 1886, he began the study of architecture and in 1891 entered the office of Alden & Harlow in Pittsburgh. Later he associated himself in the firm of Rutan & Russell, of which he was a member at the time of his death.

Clarke Waggaman

Died at Washington, D. C., October 3, 1919
Elected to the Institute in 1917

Mr. Waggaman was born in Washington on Nov. 16, 1877. He was educated at Georgetown University and at the Catholic University, afterward spending several years abroad with a tutor, under whom he gained his early training in architecture. He began practice in Washington in 1907, and in 1917 he formed, with George N. Ray, the firm of Ray & Waggaman. His work consisted mainly of residences.

The Washington Chapter, in recognition of his life and work, adopted the following resolutions:

Whereas, Death has claimed for its own a much-loved and highly esteemed member and fellow architect in the person of Clarke Waggaman, and,

Whereas, The community in which we live, by his passing beyond, has suffered a great loss, and the architectural profession a scintillating personality and an original thinker and doer, therefore, be it

Resolved, That the Washington Chapter of the American Institute of Architects, deeply feeling this loss, extends to his widow and the other members of his family their great sympathy and, be it further

Resolved, That these resolutions be spread on the minutes of the Washington Chapter and printed in the permanent records of the American Institute of Architects.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:
BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

To the Architects of the United States

Jurisdictional Disputes in the Building Industry

The National Board of Jurisdictional Awards, composed of representatives of the American Institute of Architects, Engineering Council, Building Trades Department of the American Federation of Labor, and the Associated General Contractors of America, all of which organizations have entered into an agreement binding their members to a strict compliance with the National Board of Jurisdictional Awards, has begun its work of making decisions. This undertaking marks a very important progress in the building industry and will result in saving much time and money which has hitherto been lost in jurisdictional disputes.

The decisions will be recorded in the Structural Service Department of the Journal of the American Institute of Architects, where they will also be indexed for quick and easy reference in writing specifications.

Members of the American Institute of Architects are bound to observe the following decisions in writing specifications, under penalty of suspension from the Institute. In the interests of the building industry all other architects are morally bound to observe these jurisdictions.

The last Convention authorized the Board of Directors of the Institute to enter into agreement with the National Board for Jurisdictional Awards. Under the terms of this agreement all members of the Institute are bound strictly to observe the decisions of the Board of Jurisdictional Awards in all of their building undertakings. The Board has organized and has rendered the following decisions. (For further particulars on this subject, members of the Institute are referred to the Proceedings of the last Convention, pp. 72–76.)

Air Coolers. Section I. All sheet metal work of No. 10 gauge, or lighter, used on air washers, fans, blowers, or the housing of same, shall be recognized as being the work of the members of the Amalgamated Sheet Metal Workers International Alliance.

Section II. All pipe fitting in connection with the above Section I shall be recognized as being the work of the steam fitters, members of the United Association of Journeymen Plumbers, Steam Fitters, and Steam Fitters' Helpers. (This agreement was reached by the two organizations, and was affirmed by the National Board.)

Corner Beads. In the question of jurisdiction as between the International Union of Wood, Wire, and Metal Lathers, and the Operative Plasterers and Cement Finishers International Association, the plasterers were awarded jurisdiction over metal corner beads that are secured to the structure with a plastic material.

Cutting Chases in brick, tile, etc. In the question of jurisdiction as between the Bricklayers, Masons and Plasterers International Union and the International Brotherhood of Electrical Workers, the bricklayers were awarded jurisdiction over the cutting of grooves, channels, chases, etc., except when channels do not exceed 2 inches by 2 inches in size or require labor not to exceed eight hours' continuous time, in which case the work is awarded to the electrical workers.

NOTE.—*In making this decision the Board established the principle that all cutting of masonry that might impair the stability of the structure was to be done by masons. This particular phase of the question was between the masons and electricians only. It is expected that at a future meeting of the Board, the plumbers and steamfitters will ask for a decision.*

Electrical Work on Elevators. In the question of jurisdiction as between the elevator constructors and the electrical workers, on the question of all electrical work on elevators, the electric work on flashlights, electrical annunciators, lamps, and feed wires to the controller is awarded to the electrical workers. All other electrical work is awarded to the elevator constructors, in accordance with the conditions under which the charter was issued to the Elevator Constructors' International Union by the American Federation of Labor.

Low-Pressure Heat. In the question of jurisdiction as between the International Union of Steam and Operating Engineers and the United Association of Plumbers and Steamfitters on the question of heat in buildings during the course of construction and completion of the heating system, jurisdiction shall rest with the steamfitters until the initial test is completed, immediately after which time, whenever necessary to maintain heat, a stationary engineer shall be employed either by the contractor or the owner.

Metal Glazing. In the question of jurisdiction as between the Amalgamated Sheet Metal Workers' International Alliance and the Brotherhood of Painters, Decorators, and Paperhangers of America, the award is as follows: All glass set in sheet-metal sash, frames, doors, or skylights, shall be set by members of the Brotherhood of

Painters, Decorators and Paperhangers of America, according to their claim on jurisdiction granted by the convention of the Building Trades Department, A. F. of L., at St. Louis, in December, 1910; all sheet-metal work on sheet-metal sash, frames, doors, or skylights shall be done by the members of the Amalgamated Sheet Metal Workers' International Alliance.

Pipe Railing. In the question of jurisdiction between the United Association of Plumbers and Steamfitters, and the Bridge and Structural Iron Workers International Association, the award on pipe railing consisting of standard sized cut and threaded pipe not used in connection with structural or ornamental iron work, is to the United Association of Plumbers and Steamfitters.

NOTE.—*Under this decision architects shall specify pipe railing that is threaded and screwed and is not an integral part of structural or ornamental iron under steamfitting or plumbing.*

Reinforcing in Concrete. In the question of jurisdiction as between the Iron Workers' International Association and the International Union of Wood, Wire and Metal Lathers, the Board decided that all iron and steel work for reinforcement in reinforced concrete, cement, and floor construction should be done by the iron workers.

NOTE.—*In such cities or localities as are covered by existing agreement with employers under which the lathers have control over reinforced concrete construction, these agreements are to be maintained inviolate until their expiration, after which date the above decision shall prevail. The metal lathers have agreements with employers in New York City and in one or two cities adjacent thereto.*

Vitrolite and Other Opaque Glass. In the question of jurisdiction as between the Bricklayers, Masons and Plasterers' International Union and the Brotherhood of Painters, Decorators and Paperhangers of America, on the setting of vitrolite and similar opaque glass, the work was awarded to the Bricklayers, Masons and Plasterers' International Union.

The Board of Jurisdictional Awards declared that the decisions were to go into effect immediately. It is of the utmost importance that architects bear these decisions in mind in writing their specifications. Failure to do so makes members of the American Institute of Architects liable to suspension, and would also result in tying up work under construction.

The New and Larger Structural Service Department

The Growing Demand for Structural Information. The idea of "pooling" our experience, or of "pooling" the knowledge acquired at the relentless hand of experience, is sound. We are more convinced of its soundness now than last October, when we suggested the idea, because the volume of inquiries addressed to the Journal and the Committee on Structural Service has been steadily increasing. The questions asked relate to every phase of the industry, and those who ask them are not all architects. A manufacturer wants to know if a flooring material he proposed to put on the market possesses characteristics that entitle it to consideration by architects. An engineer asks for information as to the quality of a particular brand of iron. A contractor applies for a statement on the various types of mill floors and their relative merits. Architects write for the names of experts on indoor tennis- and racquet-court construction, data on concrete tanks for tannic acid, floors for shops in which rubber tires are cast, electric heat for japanning ovens, paint for walls of dairy buildings; they ask where draughtsmen can be found, and so on and on to "Shoes and ships and sealing wax, and cabbages and kings."

Beginning with the May issue, the Structural Service Department will contain, in addition to the discussions on classes of materials and their uses, reviews and digests of:

(*a*) Bulletins published by the various Government departments. (Arrangements have been made with a number of these departments for advance copies, so the Journal notices will be published before the bulletins are released for general distribution by the Government Printing Office.)

(*b*) Reports and recommendations issued by organizations engaged in research and standardization activities.

(*c*) Trade literature and "direct-by-mail" advertising, with constructive criticisms of the technical data reaching the architect through such mediums.

(*d*) Articles published in the technical and trade press.

Co-operation between the Journal and the Structural Service Committee. As the program develops, the close relationship between the work of the Structural Service Department and that of the Structural Service Committee—a relationship which was evidently in the minds of those who put forward the resolution at the Fifty-first Convention which made the Chairman of the Committee also editor of the Structural Service Department—becomes more and more clear. Indeed, the work of each is indispensable to a discharge of the duties of the other. The Structural Service Committee becomes not only a very large part of the supply system feeding the Journal's reservoir of information, but it must also use the Journal as its official mouthpiece and as a means of informing the profession.

Advertising in the Journal. The Journal and the Committee are, in reality, the liaison mediums between the architectural profession and all other interests focusing in the building industry, and the vehicles for coöperative effort. Acting in this capacity, the Journal and the Committee will not overlook the fruitful field of advertising, and, in connection with advertising in the Journal, a determined attempt will be made to improve the character and value of copy. Many advertisers have sought, through the Journal, the advice of the Committee in the preparation of copy. The practice will be encouraged, for it works a double benefit—the advertiser gets a greater return on the price of publicity and the architect gets the kind of information he needs.

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Shadows and Straws

THE REPORT of the Housing Committee of the Reconstruction Commission of the State of New York is an illuminating document. It recites a condition in New York city which can be considered as nothing less than a ghastly reproach to civilization. In that, it offers nothing new, it is true, for we have already had the Pittsburgh survey and many others of varying degree. It is not that side of the report which provides the illumination, but rather must we turn to the constructive ideas advanced. These are confused, it is true, yet the recommendations for legislation are based on constructive lines.

In another respect, also, the report is helpful. It serves to clear away one illusion under which this country has labored. "Restrictive Legislation—such as the New York Tenement House Law—when operating alone— does not supply the worker with a better home," says the report, and for that clear statement there are many who will be thankful. It also adds that "The effect of such laws is to increase the original cost of buildings. This means that for a given cost a workman will obtain a smaller house." The report does also say that "Such legislation as the tenement house law has done much to improve living conditions," but this merely means that a certain class of people having higher incomes than the low-paid class, cannot be exploited to quite the old extent. It does not mean that the lower paid class are any better housed than before.

In the recommended legislation, the principal items are the provision for state loans for housing at low rates of interest, and an enabling act "permitting cities to acquire and hold, or let, adjoining vacant lands, and if necessary to carry on housing. This legislation should be such as to permit conservation of the increment of land values for the benefit of the community creating it." Such was the principle advocated by the Board of Directors of the American Institute of Architects in its memorandum on war housing to the President and Congress, published in the Journal of January, 1918. It is encouraging to hear an official body of a great state supporting the one principle which can have any permanent effect in improving housing conditions.

The report carefully states, however, that the recommended legislation does not mean that the State itself shall build homes, or own and operate houses, or offer a subsidy for the construction of homes. It does mean that "the State shall be enabled to loan money on its credit to limited dividend corporations or to individuals or to organizations, to build houses of such standards, as to light and air as the State or community may determine to be desirable, the rentals of such houses to be controlled."

IT WILL BE INTERESTING to observe the manner in which the State of New York will extricate its citizens from the housing conditions into which they have fallen, without granting a subsidy. Even Holland, perhaps the most advanced nation in the world in relation to housing, where her municipalities have provided for a supply of cheap land by buying it up on a considerable scale, has found it necessary to subsidize houses for some time. The subsidies previously have been divided between state and local authority on a half-and-half basis, but now the state has assumed 75% of the subsidy and left only 25% for the local authority. More than this, the Central Building Materials Supply Company, a corporation formed by the Dutch government, the cities of the Hague, Amsterdam and Utrecht, and the Association of Dutch Municipalities (of which 120 small towns are shareholders in the Central Company) has succeeded in furnishing building materials at the lowest possible prices. Even so, there still has to be granted a subsidy averaging about $50.00 a year on a small house of five or six rooms. England pays a subsidy, as has already been recorded in these columns, of from $630.00 to $780.00 per house outright. Where is there a country which

is making any progress in its housing problems without paying a subsidy? Where is there a country granting state aid at low interest which has succeeded in solving its housing shortage? Perhaps the State of New York can meet this emergency without resorting to a subsidy. It is to be hoped that it can, for subsidies are invoked only when private initiative has brought the State or the community to a condition from which private initiative cannot extricate it. They cure nothing.

Of course the subsidy might take the mild form of an exemption from taxation, as suggested at the Mayor's conference in New York City, where an official identified with one of the important money lending institutions observed that if building loans and mortgages up to $40,000 were not freed from taxation, the housing situation was "fraught with peril and disaster." But this only serves to disclose another reason why money is not available for house building. It prefers to seek investments that are tax free, such as state and federal securities, which again reveals the evil of subsidies, for the moment exemption appears in one place, money deserts other channels. It is a palliative which appeals to the investor, but which does not relieve the economic disease. In the case of housing, it does not appear that even tax exemption would very much relieve the situation, and it can certainly be regarded as no more than an expedient.

More than that, is it not also apparent that were large sums of money made available for building purposes, competition in materials would ensue and thereby again effect a raise in prices? The whole situation is full of complexities and uncertainties, and we shall not extricate ourselves from it easily or cheaply. We could very well make some careful studies of Dutch legislation, and learn from their patient and thorough methods, what the problem involves. More than that, we must learn to look at it in broader fashion. It is today a localized issue. It is really a great national question. For example, why should more people be housed in New York City? Is it to anybody's real interest that such a community should continue to grow? Is it in the interest of the national welfare? How far can we carry the desertion of the country and the piling up of the city? How many farms were deserted in New York State last year? Where did the people go? Who is taking their place as food producers? The truth is that we are creating a problem vastly greater than the housing problem when we try to find out how to house more people in centers that are already full to overflowing.

THE HOUSING PROBLEM does not begin in the cities. It begins in the country. The history of all nations tells the story with unfailing clearness. We shall not escape their calamities unless we can find some way of distilling synthetic food from the air or of translating ourselves into a foodless existence. The State of New York could well turn its attention to the small communities, the farms, the isolated sections. If it would discover—and it could, if it wished—how to offer contentment to country dwellers, it would have done itself a real service. Until it looks at the housing problem as the basis of its welfare, it can scarcely hope to do more than administer a little alleviation to the growing pain which it does not even take the trouble to understand. The temporary problem is pressing. It must be dealt with, but it is a pity that the report of the housing committee did not take cognizance of the social significance of our artificial and unhealthy urban extension. Therein lies the real problem.

"THE BASIC REASON for the congestion of our cities," continues the report, "is the high cost of land. Only the wealthy can afford to live at such a distance from our urban centers that land is cheap. As population increases, so do land values. The man of moderate means is driven into the suburbs. The poor man is forced into smaller and smaller quarters in the congested areas. * * * * The increased values of land which result solely from the fact that individuals are crowded together are of no benefit to those who create them. This land increment, in most cases, is wasted in land speculation. If the city pays for a subway to distribute the population over a wider area, the land along the subway immediately increases in value. This increment, the result of the action of the community in building a new subway and in making use of certain parts of this new territory for residential purposes, generally goes to speculators. It is charged as part of the cost of the house either as rent or selling price. This increased value that comes from the causes above mentioned is sufficient to deprive a large part of the workers of this state of the chance to get decent homes. * * * * To a great extent the problem of housing is a land problem. The influx of a population into a new area immediately augments the value of the land. The newcomers pay the increase in rent or cost of house. Any improvement in housing has the same results. Neighboring land goes up in cost. Further improvements are stopped by increased costs."

Surely it is hopeful when an official report sponsored by no less an authority than the State of New York, can begin to tell people the truth about housing.

THE LINCOLN MEMORIAL may be visited by delegates to the Convention, although the statue of Lincoln has not been formally unveiled. The work of grading and planting is proceeding apace and the

eye of the imaginative visitor will mark the lines of the long lagoon below in the placid waters of which the memorial will one day be mirrored. The retaining wall is slowly setting to its final resting place. Its foundations do not go down to bedrock as do those of the memorial itself. To avoid so considerable an expense it was deemed best to allow for settlements and later to correct any variations by changes in the masonry. So far it appears that the settlements are in almost perfect accord with the calculations and that the correction will be slight.

C. H. W.

Industry, Homes and Architecture. II

By THOMAS ADAMS*

"There is an instinctive sense, however obscure and yet inarticulate, that the whole constitution of property, on its present tenures, is injurious, and its influence on persons deteriorating and degrading; that truly the only interest for the consideration of the State is persons; that property will always follow persons; that the highest end of government is the culture of men; and if men can be educated, the institutions will share their improvement, and the moral sentiment will write the law of the land."—EMERSON.

THE ideal state of Emerson and Ruskin—one that seeks first the interests of persons and has as its main objective the culture of men—may be regarded as the ever-present ideal of all thinking citizens in our western democracies. In practice we follow as far behind that ideal today as in the day of the New England transcendentalist. But, in considering policies and in advocating reforms it is an ideal we should ever keep in front of us.

In the first† article on this subject it was submitted that the defects of our social and industrial organization were the outcome of the too-general acceptance of false economic standards and the absence of moral sentiment in the domain of government; that cooperation, or what Emerson called the union that is "ideal in actual individualism," was the safe anchorage to be sought for the ship of industry, now storm-tossed in the waters of competition and menaced by destruction on the rocks of ultra-socialism; that the problems of housing and industry in democratic communities could only be effectively solved by government leadership in extending opportunities for cooperation and in controlling property in land. It is necessary to develop the argument a little further to indicate what is meant by the control of land in relation to industry, homes, and architecture.

Land and Industry

We are accustomed to think of land as the source from which we obtain all necessities of life, and of human energy and skill as the means by which we convert the products of land to human use. For instance, land grows food, wool, and lumber and provides brick, earth, and mortar; while the arts and manual labor of the husbandman, lumber-jack, the and the lime-burner harvest these things for the benefit of themselves and others. To the most primitive mind this connection between land and primary production is clear.

Under modern conditions of society, however, the production of raw materials from the land is only a half, or less than half, of the industry of a country. The development of manufacturing machinery, and the consequent creation of the factory and the city, has made it difficult to follow the connection between land and the various graduations of production, manufacture, and distribution. While it is easy for us to see the connection between land and wool or cotton, it is not so easy to follow its continued connection with production through all the processes of manufacture and distribution as clothing. Yet the efficiency of these processes may largely depend on the proper location and cost of site of the manufacturing plant; on the character of the means of communication; on the health and spirit of the workers in the plant and, therefore, on their homes and surroundings; and on many other things, all of which, in turn, depend on the way in which land is planned, developed, and controlled.

The Objective of Communities in Controlling Land Development

It should be the objective of progressive communities to plan, develop, and control land for use as an instrument of production. If this is done, health, order, and amenity will result in large measure without conscious effort—since nature demands attention to these three things as a means to secure greater production. The failure of much so-called town-planning is due to attempts to superimpose conditions which nature demands to promote health, order, and amenity on a weak, artificial foundation of land development that has no regard to these conditions *ab initio*. If we begin from the beginning with the right object in view, that object will be largely achieved by natural evolution; if we begin with the wrong object, or with no object, our ener-

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†December, 1919.

gies will be spent in restricting the worst effects of bad conditions that will follow, and no opportunity will be left for the designing of what is good. Land development may be called the root of the tree of structural development. If the root is unsound, the branches can never be made healthy by trimming. We must begin our town-planning with the proper cultivation of the root, and a great deal of our artificial treatment of the subsequent growth will be unnecessary.

Lack of Community Control to Blame for Injurious Speculation

The failure of a community in having the right objective in the development of the land is, in effect, as bad as having a wrong objective—because the absence of any good social objective leaves the way open to individuals to pursue a series of selfish ends, in conflict with each other, with aggregate results of injury to themselves as members of a community. In any case where the object of a community is not to develop land, definitely, in the interest of health, order, and amenity, then the individual is free to speculate in values given to land by the unhealthy use of it. Then arise the monsters of vested interests in slums, in congestion, in disorderly industrial development, and in the possession of power to destroy the beauty of natural features. Much is written with regard to the evils of land speculation. Land speculation cannot be inherently wrong so long as men must buy and sell in the expectation of gain; and with equal chances of loss and gain. What is certainly wrong is that the object of speculation should be promoted by any given system of land development, or that the want of control of land development should permit speculation in improper uses of land. Subject, for instance, to the limitation that land could not be overcrowded with dwellings to the injury of health of the inhabitants, or of the amenity of a district, there is nothing wrong in buying and selling such land for dwellings, so long as private property in land exists. The bad effects of speculation in land are caused by the failure of communities to regulate the use and prevent the abuse of land.

It is in proportion as the ownership of land carries with it the right to limit the provision of reasonable air-space and sunshine, and to prevent the freedom of movement of persons in a community, that it is bad ownership. It is also in proportion as individuals may profit from such unwholesome limitations, and speculate in the money values they produce, that speculation is bad and wrong. It is therefore the sin of omission on the part of the community if it does not prevent that improper or unhealthy use of land which is responsible for the evils of bad development —not any sins of commission on the part of the land speculator. We have already seen that the same statement applies to industrial housing—and that it is the public authority and not the employer of labor who is responsible for good or bad housing conditions. Thus, the whole problem of land, housing, and town-planning development becomes one of better local government. Better local government, however, can only be obtained in a democracy on the basis of education of the governed. The first object to be sought in promoting a sane and healthy system of land development and industrial organization is thus to educate the people—and the first step toward the achievement of that object is to educate those who lead the people.

The Need of Education Greatest in Democratic Countries

In this matter of adequate control of land development in the interest of health and orderliness in industry and home, we have at least one thing in respect of which the western democracies have seemingly made no progress in comparison with the more advanced of the feudal nations of Europe. The greater freedom given to the mass of citizens in democratic countries to acquire ownership in land has perhaps mitigated against rather than encouraged the application of sound principles of development. As against the great social benefits derived from the extension of home ownership there has unfortunately to be put the fact that the cities and towns that have the largest ratio of owners of land to population are frequently the most sluggish in promoting necessary public improvements and in permitting the restriction of their property rights. In such cases the owners, as taxpayers, have to weigh in their minds the known factor of immediate cost with the unknown factor of the value of any scheme of improvement; and even when the latter value is apparent to them, if they are not satisfied that their personal benefit is proportionate to their own contribution, they are likely to oppose the scheme. The person of average intelligence is not able to visualize the ultimate social value of controlling land, but is apt to greatly magnify the immediate effect of such control in restricting his imaginary rights. Education is the only means by which we can raise the average standard of intelligence on this, as on any question, and in a democratic country education is a slow process because it has to reach the mass of the people.

A Scientific Foundation Needed for Land Development and Town-Planning

But it is apparent to the student of land development in town and country that before the education

of the masses can be begun there must be a science to teach and men to interpret the science. What is the extent of our equipment in the science of development of land for purposes of industry? We have a growing literature, and there has been much uncoordinated study and experiment in city- and town-planning. Some of the universities are nibbling at the subject, and a group of specialists is emerging from the architectural and engineering professions. On the whole, however, we have only the beginnings of a science and no adequate scientific equipment. It is generally recognized that the study of underlying conditions must precede the preparation of a plan of a city, but to many this consists of merely studying the existing physical conditions of the locality to be planned. Something deeper and wider than that is needed for purposes of scientific investigation and for arriving at settled principles. The social and political aspects of land development and industrial organization as a whole need to be investigated and analyzed.

What we want in relation to land development and town-planning is what Huxley describes as the "growth of knowledge beyond imaginable utilitarian ends which is the condition precedent of its practical utility." Huxley was writing of the progress of science in relation to the processes of manufacturing industry. He referred to the awakening of the captains of industry to the value of science and continued:

"It has become obvious that the interests of science and of industry are identical; that science cannot make a step forward without, sooner or later, opening up new channels for industry; and on the other hand that every advance of industry facilitates those experimental investigations upon which the growth of science depends. We may hope that, at last, the weary misunderstanding between the practical men who professed to despise science, and the high and dry philosophers who professed to despise practical results, is at an end."

It is true that the practical men have become convinced of the value of science within the factory; it is also true that they still despise science in relation to the urbanized social organization which industry has created outside the factory. Yet science is as much needed to build up that social organization as to develop the mechanical processes of industry. When the captains of industry are sufficiently awakened to that need we shall have more reliance placed by them on constructive methods of land and town development, on promoting healthy living conditions in home and factory, and on the application of preventive measures to social evils as a means of raising the standards of civilization.

But the education of the captains of industry, the politician, and other leaders of men must be preceded by further education of those who practice the art of city- and town-planning particularly in the investigation of the underlying factors that have to form the foundation of city- or town-planning as an art. Whether our problem is to build a new city or to replan the building of an existing city, we must have regard to control of land—and to the principles that constitute its proper use for health, order and amenity. It is these principles—and not the so-called principle of expediency, as Mr. Ackerman has said—that should guide us in the practice and policy of city-planning. They are the principles that in the long run are sound from the point of view of practicability, as well as of ethics, for they conform to the demands of nature—and nature is a tyrant whose law we cannot despise with impunity.

The art of city- and town-planning is being developed in our schools of architecture and landscape architecture—but without adequate scientific data as a basis. Until we know more of the underlying facts and their mutual relation, we shall continue to draw conclusions from wrong premises and waste much of our time and energy. The research that is needed cannot be undertaken without large funds. Extensive regional surveys need to be made in all areas of special character, and particularly in industrial areas. We need investigation of:

(*a*) The origin, working and results of different systems of land development;
(*b*) The proper or improper forms of zoning or classification of industries and residences;
(*c*) The relation between industry, dwellings, and transportation;
(*d*) The tendency of manufacturing plants to penetrate new areas and the problems thereby created;
(*e*) The best economic uses of land in given localities;
(*f*) The standards needed to govern the character and density of structures for different purposes;
(*g*) Housing—comprising sanitation, convenience to places of employment and amenity;
(*h*) Forms of transportation;
(*i*) Sources and forms of distribution of power;
(*j*) Water supplies and sewerage schemes in relation to regional areas as distinct from arbitrary local areas;
(*k*) General amenities,—parks and boulevards.

The rational order in which these things should be studied and the geographical limits of areas is a matter for preliminary consideration. The immensity of the problem is indicated by the above short summary, but the importance of dealing with it in a comprehensive way, in spite of its size and complexity, is proved by the futility of the results achieved by the practice of city-planning in separate compartments, with too much regard to expediency.

State Legislation

The mere setting up of planning commissions in cities will not go far to achieve effective planning and control of development. State legislation, to give adequate power to local councils and to facilitate cooperation between councils in adjacent areas, and state assistance in making comprehensive regional surveys are needed. There is no necessary power required for city or regional planning that cannot be given to local authorities in America, subject to joint action of the state and the local authorities. Nor is there anything objectionable in the state legislation needed for this purpose, or in the joint action which is desirable, to the advocate of more local autonomy.

Land cannot be effectively controlled without special state legislation—nor without means to permit and even to enforce some form of joint action of incorporated bodies in regional or metropolitan areas. Special powers are needed to enforce any scheme effectively; to secure for the community part of the increased value given to land or buildings by the making or execution of a scheme; to make zoning regulations permanent and elastic and not capable of being overridden by the caprice of changing personnel of local councils; to acquire land compulsorily without cumbersome or expensive procedure, including land in excess of what is needed for a particular improvement; to do all things necessary *according to modern standards*, for health, safety, and injury to private rights—that are in conflict with these things; to prevent building on unsuitable land and to classify such land for reclamation, agriculture, parks, or other purposes.

In the subsequent preparation of schemes, comprehensive areas should be chosen, no new subdivision of land should be permitted within the area unless where approved by a city-planning commission, and, where possible, the commission should cooperate with owners of land to obtain a revision of existing subdivisions that are not properly planned.

Stabilization of Real Estate Values

City and town-planning should stabilize real-estate values, and there is nothing objectionable in their doing so. Injurious speculation in land and profit-making in forms of abuse of land will be prevented, but the general stability of land ownership will be improved. The real-estate shark is the worst enemy of a sound system of land ownership as well as of land development. Any revision in the system of taxation should be designed with the object of promoting good development rather than punishing bad development, or destroying ownership under proper conditions. Bad development should be prevented. As I have stated elsewhere:

"The planning of land for right use and development should precede any taxation reform so that the tax would have some relation to the use to which land was to be put in the same district; whether, for instance, it would be used for building skyscrapers, or workmen's dwellings, or for growing fruit or vegetables."*

The assessment of land for purposes of taxation should also have a relation to these uses and should not have the effect of sterilizing or forcing the subdivision of agricultural or nursery land within or adjacent to municipal boundaries. The community value given to the latter can be collected in bulk when its conversion to building use takes place, without real injury to the owner.

Architecture and Control of Land Development

Order in planning land postulates order in buildings. Architectual incongruities in cities are more often than not the indirect results of bad beginnings in land development. The architect, professionally as well as a citizen, is interested in securing a sound system of land development, implying as it does the control of the use of land for health, order and amenity. It is erroneously assumed by some that the interests of the architect in city-planning are confined to the design of the buildings, and that all surveying and engineering work in connection with the plan can be completed before the architect is called in to take part. No satisfactory plan of land dealing with the street system, the lot subdivisions, the building-lines and densities, the classification of land for different purposes, can be prepared by any person or group of persons however skilled, unless they have the capacity to visualize the structural development to follow the plan.

In the absence of an architect in the group of specialists preparing a plan, there should be someone having vision and artistic feeling and some degree of knowledge of architectural forms to adjust the plan to suit the completed development. The safer thing is for the architect with town-planning sympathy and training to be one, if not the dominating figure of the group,

The architect is a creator of buildings according to plan. The utility as well as the beauty of the structure he creates depends, not merely on its form and the correct proportion of its parts, but also on its conformity to purpose and natural laws and its harmony or propriety with its surroundings. An architect engaged in building in a city, town, or village must also be a town-planner, for he is creating

*"Rural Planning and development," p. 124.

a part of a community structure. No matter how able he may be in his art and dominant in his personality, he is the slave of natural law. His freedom of expression is limited by nature.

Being the slave of nature himself, he should not be required to compromise with artificial conditions of land development that are laid down for him by others who have ignored nature. What is meant here, as already indicated, is not merely the physical conditions of nature, but the conditions imposed by nature as the price of health and amenity. When a surveyor or landscape engineer prescribes the layout of land in some rectangular, radial, or other geometrical form, without regard to either topography or human purpose, he is creating artificial obstacles for the architect as well as for the engineer and the community. The architect cannot overcome these obstacles; he has to make compromises with them. He may design houses to look well on lots 25 feet wide and with adequate provision for air-space and light, but here again he is compromising with artificial limitations that are imposed by others without adequate reason, except that of facilitating profit-making out of the sale of the land or that of suiting an engineering or landscape purpose that has no regard to structure of buildings. The architect has therefore a duty in connection with the control of land development and an interest in promoting that control. The real foundation of his structure is not the piece of land on which he builds, but the general system of laying out the land for industries or homes.

It is not so essential that the architect be the town-planner as that his opportunities to comply with natural law, and have freedom of expression subject to that alone, be not restricted by artificial limitations imposed by any plan of the land. His own compliance with that law should not be hindered by non-compliance with natural conditions of those who plan the land.

Nor should the architect himself forget that when he becomes town-planner he has to become a dual personality. As architect of a building he should have freedom to express himself and to pursue his own ideals as an artist; as town-planner he has to express not himself nor his own ideals, but the purposes and ideals of the community through himself.

Finally his share of responsibility for laying a saner and more scientific foundation for the development of industry and homes depends, with him as with all, on the knowledge that is power.

Ancient Cottages and Modern Requirements.

WITH AN ARCHITECTURAL OPINION FROM Mr. BERNARD SHAW.

Under the above title, the Royal Society of Arts recently listened to a paper by Mr. Alfred H. Powell and then joined in a discussion of the subject. Both were very interesting; they exhibit a deeper knowledge of and affection for the domestic architectural achievements of England than one is apt to find in either reading or listening to the modern house reformer. They offer pleasure and refreshment to those who are bored to extinction with laws, standards, and the dreary list of inventions, devices, and expedients, put forward as a solution of the so-called housing problem. Both the paper and the discussion reveal—it may be only a dying gasp—the possibilities that should lie in house building and home making as healthful outlets for mankind. The world, in its blundering frenzy about a problem which it is too lazy to analyze and understand, is in serious danger of forgetting why we have houses.

Said Mr. Powell: "One thing appears very clearly at the outset, that, whereas the new houses will be just new houses, the old ones have for many generations been *homes*. However well, however thoughtfully we architects go to our work of housing, however nicely planned and outsided the new houses may be, they cannot all at once become homes. It takes long association and use to make a house into a home, and age, which is the reward of wise building, is the perfection of architecture."

"There is, perhaps, no country in the world that can show in so small a space as England so great a proportion of ancient cottages, well built and beautifully gardened, and still in wonderful working order. . . . We who live with them always and see them daily may easily come to take them as a matter of course. . . . Often during these years of the war I have thought of soldiers and sailors scattered over the world in all kinds of difficulty and danger, and felt how strongly must the thought of these ancient homes have upheld the courage and steadied the faith of thousands.

"Another point we may bear in mind in considering the possible fate of old cottages is that our modern architecture, in spite of all the pains we architects take, is not a popular art with a real message to the people, and the host of new buildings in all our renewed towns and cities practically passes without notice or comment; they are buildings innocent of power to move our hearts—they have little food for the spirit. But with ancient buildings it is not so, and I do not think this is entirely due to their being ancient. . . . The deeper reason for this is no doubt unrecognized in a general way, but whereas new work of our time is bound to be the result of individual effort in a sophisticated age, ancient and medieval building was democratic in the sense that it made folk-speech. The common energy of men ran to fine building and the arts, and these became under their hands a language very widely understood by the whole people. . . . I cannot refrain from asking if it may not be this that is at the root of our present labor distress? From our work there has departed something that we recognize as present in the work of the old builders. We see that their work was able to give them a life within a life, a poetic edge upon all effort. In a word, work

appealed to them because it tapped the springs of invention and conscious enjoyment, so that through all their continual struggle for social recognition they kept on making things that still fill us with a pleased wonder. In their buildings, as Professor Lethaby tells us, there was magic even to their makers. I am convinced that by workmanlike consideration of old work, by close looking at the actual substance and form of it—not as critics, still less as imitators, but as interested to the point of doing it, in all work well done—we might learn a new ideal of work and see it as the rational and sufficient outlet for all human activity. . . . All the arts are sprung of use, and are thereby the most direct guides to the long story of the use of houses. . . ."

"As to defining a cottage I find little help in the dictionaries, but if I were asked for a definition I think I would call it a building whose main purpose was to be convenient for workers and work—so small as to be in constant touch with the out-of-door world and the elements—by no means a place to be idle or ill in. . . . In thinking of the outdoor workers' attitude towards a cottage of this kind, I always call to mind the words of an old carter I once knew in Surrey. We were talking about two old men, well known in all that county (one was called 'Uncle' and the other 'Teapot'—I never heard any other name for them), men whom we should call tramps, but whom I always found ready to be helpful if wanted. I asked him where they lived, for I had seen them at tea in a neighboring ditch that afternoon with a kind of tent thrown over the hedge to protect their fire. He answered, 'Oh, they never use no houses, you know.' Before that I had never thought of a house as a small object to 'use', and I felt the precarious nature of a cottager's life in a new way."

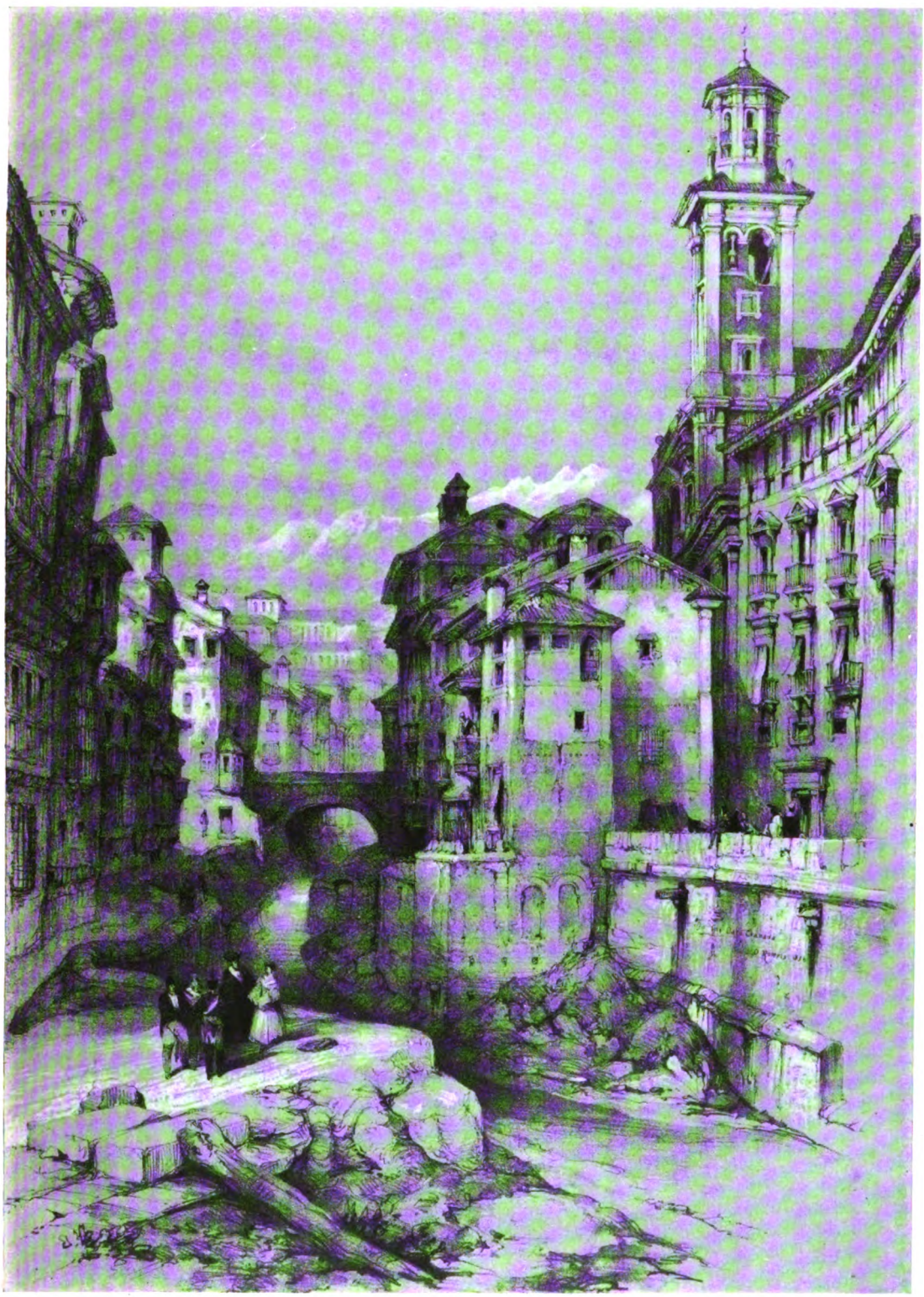
Mr. Powell went on to discuss many of the problems involved in the preservation and alteration of old cottages and concluded his paper as follows: "My plea for ancient cottages is bound up with the thought that they are the places where England was made, the homes of all country handicrafts, the explanation and the history of the people, an object lesson for our own time in simplicity of life and straightforward building that has been the basis of England and English life through so many centuries. It is surely no small part of English history that here in these humble dwellings has grown up the knowledge of all agriculture and all building. No one can say from what remote antiquity this knowledge came, but we need to remember that it was only serviceable to workers, in their doing of work, only indeed comprehensible to them as rules of work."

Mr. Bernard Shaw, opening the discussion of Mr. Powell's paper, said: "He was not sure that a great deal of mischief had not been done within his own lifetime by building which was purely literary and nothing else. He had lived in some literary buildings, and had felt intensely relieved to go back to an eighteenth century house, a sensible sort of house made by simply putting a number of rooms together and making a passage by which to enter them. The literary and artistic house—a place where everything was made as dark as possible, where there were as few windows as possible, and as much of those windows as possible was filled up with lead—in which one lived with an exalted sense of its artistic qualities, was really a sort of architectural hell. He had come to the conclusion that what is wanted is a law that every building in this country shall be knocked down at the end of twenty years and a new one erected in its place. Of course that would get rid of the old cottages; but what right had the people of this country to possess old cottages? One of the reasons why so much of our building work was bad was that we had got into the habit of sponging on the past. People made a tremendous fuss about the destruction of cathedrals, such as Rheims; but in a competent state of the arts and crafts the sensible thing would be to get a new cathedral and stained glass, and do the whole thing over again, and see if it could not be done better. If we were a genuinely active people, producing decent habitations and decent art, it would be very hard for an old building to keep alive. An architect in the fourteenth century regarded a Norman cathedral simply as a building out of which he could hew something perfectly new. Personally, he had all his life had the feeling that every generation ought to be able to produce its own art, and that the worship of the past that people of the present day had been driven into was a disease that could be cured only by the wholesale destruction of all the monuments of the past, so as to force us by a kind of starvation to produce our own art. People tolerated ugly buildings and ugly surroundings, and then during their holidays went to look at a beautiful old house as something unique. It was certainly pleasant to look at some old English villages and cottages; but what a horrible thing it was that a pretty cottage or village should be a spectacle which people travelled a long distance to see? It ought to be a matter of course, so that no single person in the country should look twice at a decent cottage. If the wholesale destruction of human beings involved by war could be avoided he would be glad to have a dozen wars, so that all old buildings could be destroyed and replaced by new and perhaps better ones."

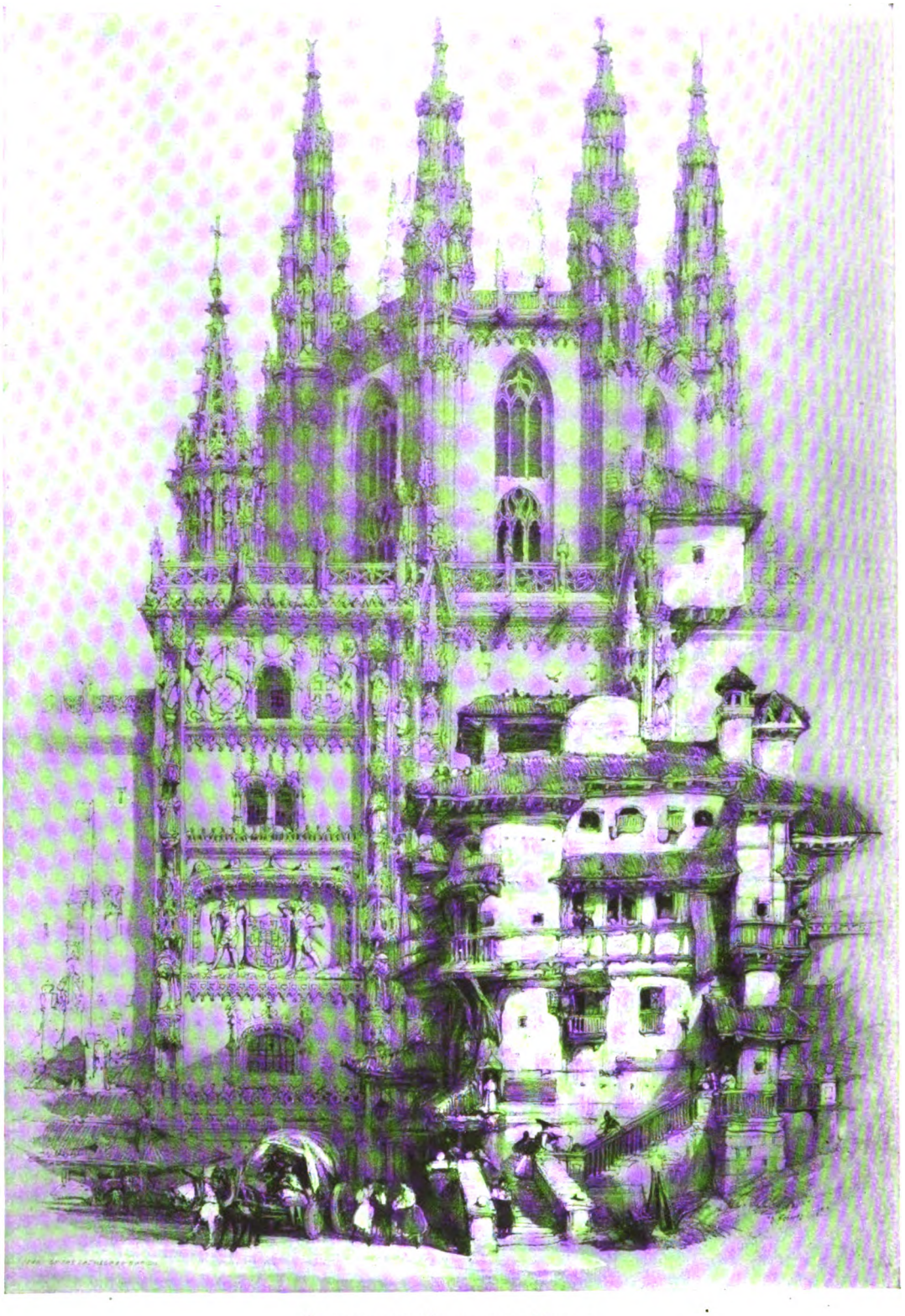
The chairman pointed out that "Mr. Shaw, the destroyer and Mr. Powell, the preserver, were in a way very much akin, because they both looked at the matter from the human end. Mr. Shaw's remarks were simply a paradox by which he wished to emphasize that we had got to do really good work at the present day. The moral of most of the remarks made at the meeting was that a cottage was a good thing when it started at the human end. If a man tried to build something which was artistic, he only produced something artistic, and it had no really permanent value about it at all; but if he started at the human end, and his aim was first and foremost to make a home for a person who deserved one, he would make a really good home."

Such simple truths, pointing as they do toward a restoration of art by the enfreeing of workmen, and toward the creation of homes through the pleasure of building them, are quite refreshing in the midst of so much barren waste of speech about "art," "housing," and "educating the public."

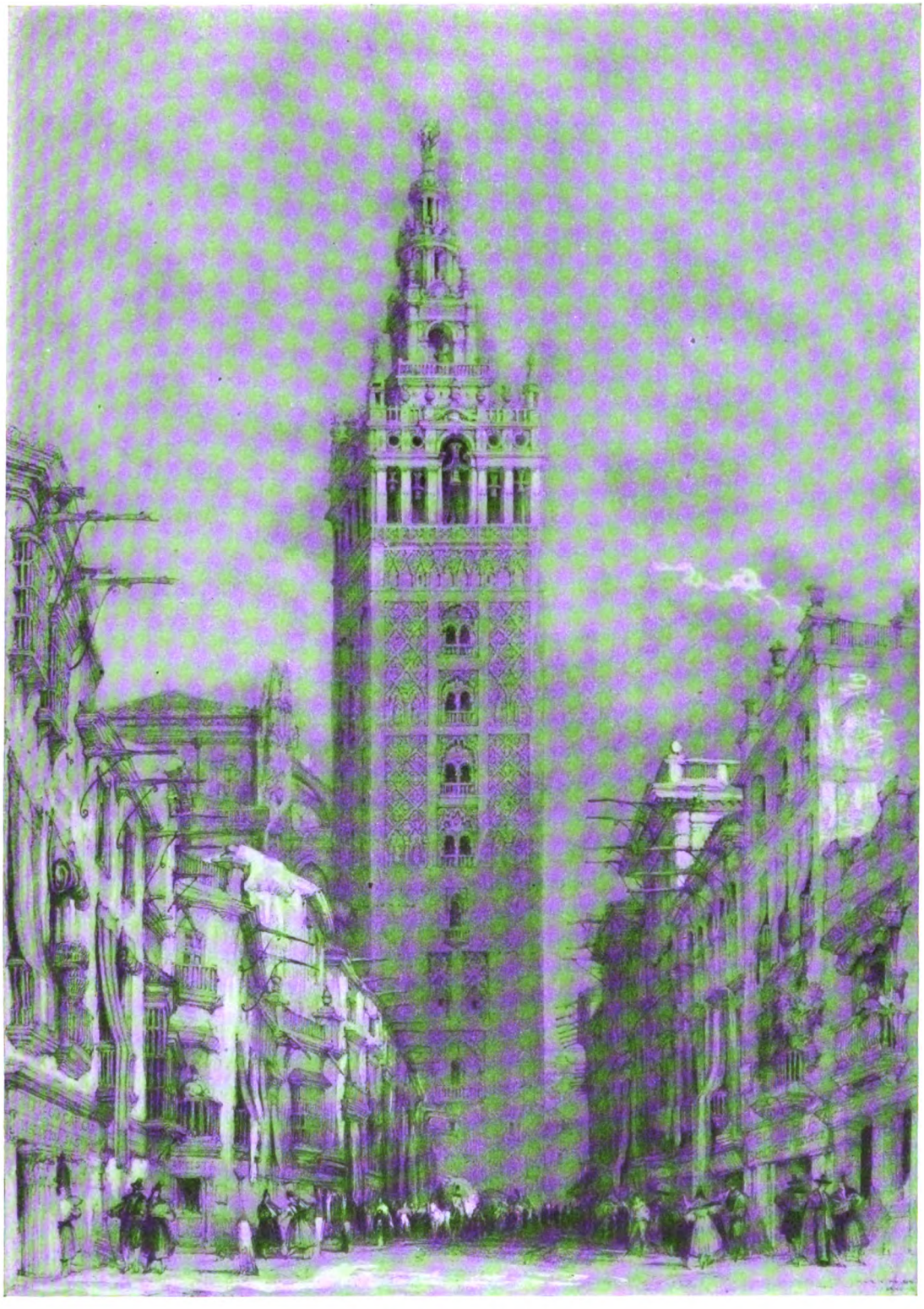
It is interesting to know that the Society for the Protection of Ancient Buildings has taken active steps to preserve the ancient cottages of England by offering to repair them at a cost of a hundred and fifty pounds or thereabouts. It has addressed a memorandum to that effect to the Ministry of Health.



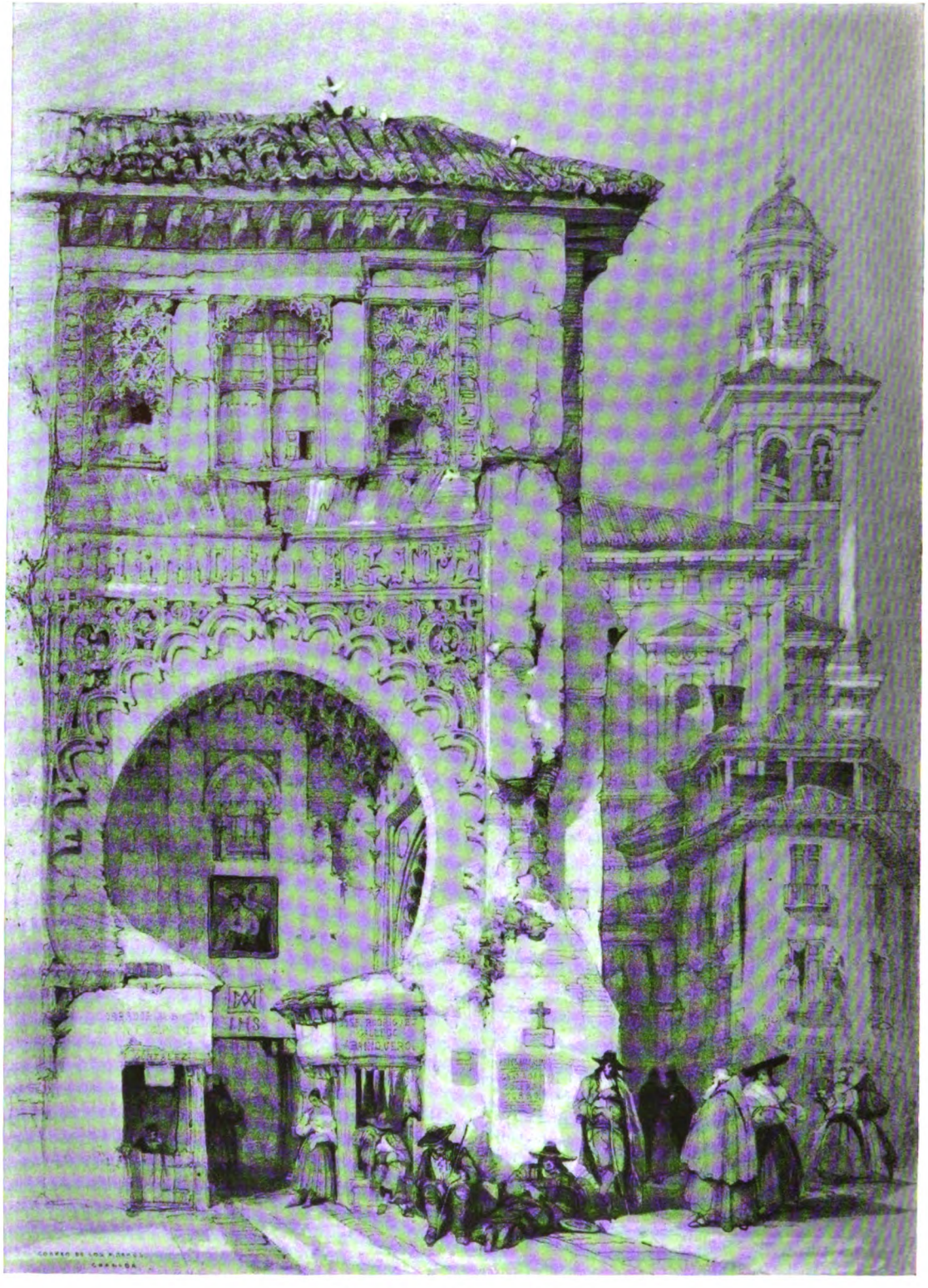
Old Buildings on the River Darro—Granada
After the Lithograph by David Roberts



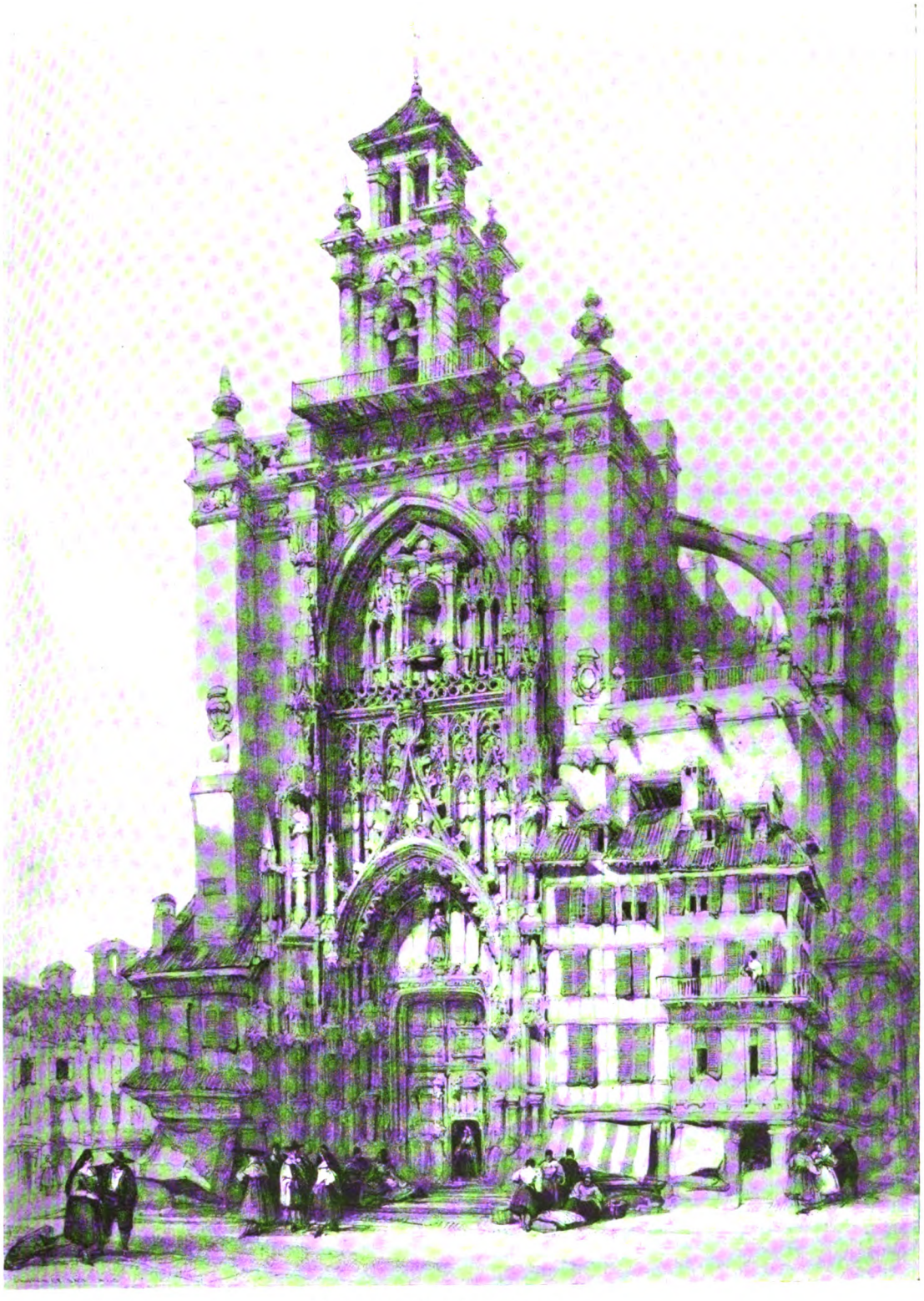
PART OF THE CATHEDRAL—BURGOS
After the Lithograph by David Roberts



The Giralda—Seville
After the Lithograph by David Roberts



CORREO DE LOS MORROS—GRANADA
After the Lithograph by David Roberts



CHURCH OF SAN JACO—XERES
After the Lithograph by David Roberts

GATE OF THE WARRAMBLA—GRANADA
After the lithograph by David Roberts

The Question of State Societies

In the following communications to the *Journal* the subject of State Societies is presented by Messrs. F. E. Davidson and Charles St. John Chubb, members of the Institute, together with resolutions adopted by the Minnesota Chapter. These are presented and made available to the delegates to the Fifty-third Convention as having an important bearing upon the subject there to be discussed.—*The Editor.*

Mr. Davidson's Argument

A review of the efforts in recent years to increase Institute influence by an increase in Institute membership will disclose that notwithstanding the operations of the revised Constitution of the Institute, approved at the Minneapolis Convention, which provided for a new class of membership known as Associates of the Chapter, in addition to the special drives for new members conducted by the past two Institute Administrations, the increase in Institute membership hoped for and expected has not been secured.

This result was foreseen by the Illinois Chapter, which after careful and mature deliberation finally approved and presented a resolution to the Board of Directors of the Institute previous to the Nashville Convention in which was suggested the importance of having the Institute interest itself in the formation of State Societies of Architects in order to extend Institute influence. This resolu tion was adopted by the Convention. The resolutions submitted by the Illinois Chapter relating to State Societies were as follows:

> "Whereas, there are now organized in several states in the union State Societies of Architects, the object of which is to promote the business interests and efficiency of its members and generally admitting to membership all honorable practicing architects of their respective states, and some of whose objects are identical with or similar to the objects of the American Institute of Architects and its Chapters, which societies are worthy of the respect and assistance of and co-operation with the American Institute of Architects; and,
>
> Whereas, the work of the several Chapters would be more effective in local professional, industrial and public affairs if they were in closer reciprocal relations with these State Societies and other such organizations; and,
>
> Whereas, the American Institute of Architects would be more representative of the architectural profession and more influential in national affairs if it were in closer co-operation with such organized architectural bodies outside of its present membership.
>
> Therefore, be it resolved, that the Illinois Chapter of the American Institute of Architects recommend to the Fifty-Second Convention of the American Institute of Architects, that the Board of Directors of the Institute be directed to encourage the organization of state architectural societies and invite such organizations to be represented at the National Convention of the American Institute of Architects, with such status as the Board of Directors may determine, and to maintain correspondence with the Secretary or other officer designated by these societies; and,
>
> Be it further resolved, that the Illinois Chapter recommends to the Fifty-Second Annual Convention that the Board of Directors be instructed to encourage Chapters of the American Institute of Architects to cooperate with such state societies and local organizations engaged in the promotion of the arts and industries allied to architecture."

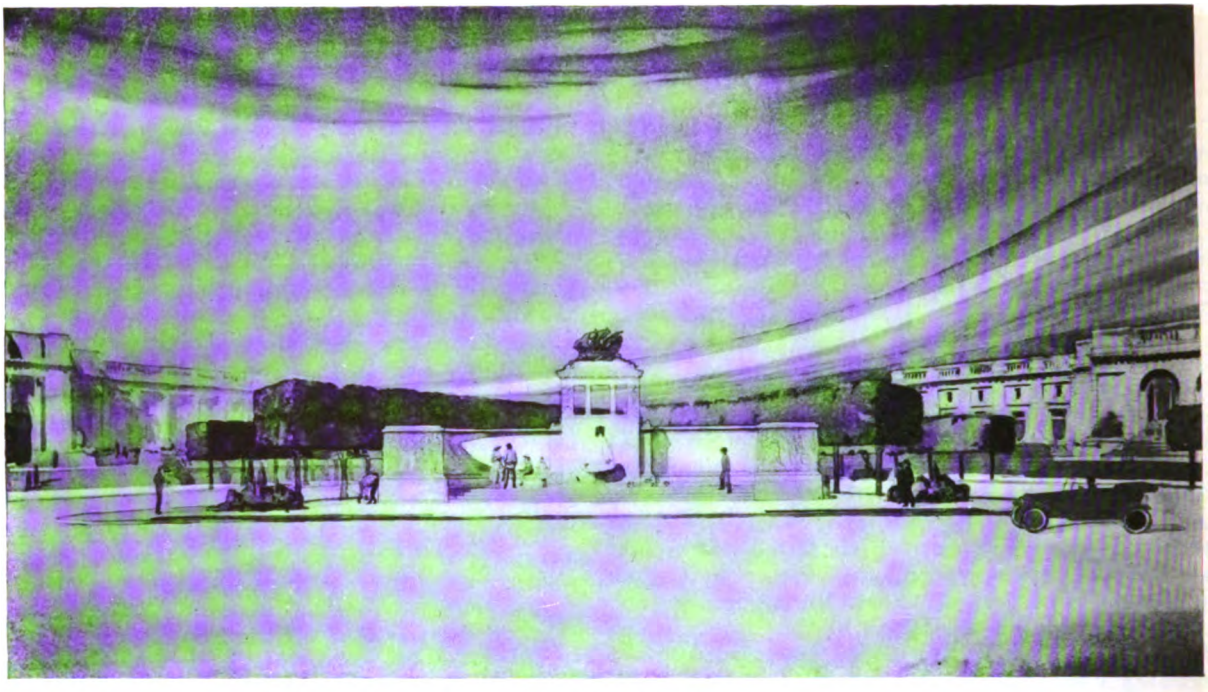
After the organization of the Post-War Committee, following the National Convention, that Committee determined to learn, if possible, whether the profession throughout the United States, as represented by the Post-War Committee, held similar views to those expressed by the Illinois Chapter resolution. A questionnaire was prepared and sent to each member of the committee. The replies received convinced the National Committee on State Societies that the Illinois plan as outlined in the resolution of the Illinois Chapter was in general the most practicable suggestion that had been made in recent years to extend the influence of the Institute. (The passage of the Resolution at the Convention at Nashville also indicated the approval of the representative Architects in attendance at the Convention.)

The Committee then prepared a tentative form of Constitution and By-Laws that was modeled after the Constitution and By-Laws of the State Societies of Michigan, Indiana, Iowa and Illinois, these having been proven workable by the experience of time, and after securing the criticism of the Executive Council of the Post-War Committee sent copies of this suggested document to all members of the Post-War Committee. This document was not printed for general distribution, but rather to furnish a concrete basis for discussion and criticism.

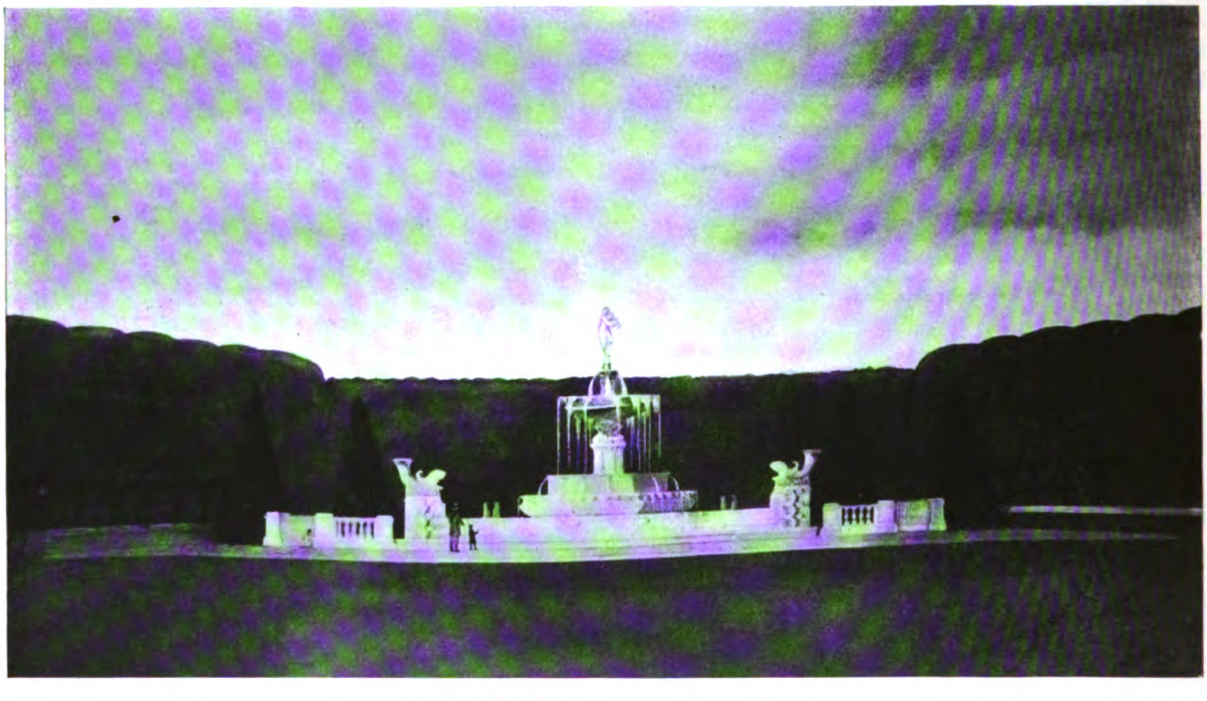
After sufficient time had elapsed to permit a careful study of the document, another letter was addressed to members of the Committee inviting criticisms and suggestions, and from the entire membership of the Post-War Committee only two members offered constructive criticism. It may, therefore, be reasonably implied that in the opinion of the members of the Post-War Committee, State Societies are desirable and should be fostered by the Institute.

The writer stated at the Philadelphia Convention that "State Societies should be considered as training schools for the Institute," and observation and study of this important subject since that date only confirm his then publicly expressed opinion. The Institute should give its encouragement and use its best efforts to assist in organizing in each and every State, a State Society of Architects, admitting to membership every registered or licensed architect in those States where registration or license laws are in force, and in all other States every honorable practitioner. (It is recognized that in certain States, owing to peculiar local conditions, it may be inexpedient to encourage immediate action—but ultimate action should be a result to which to look forward.)

It seems also to be desirable for the State Societies to provide an Associate Class for Architectural Draughtsmen and Superintendents. Let each State Society be absolutely self-governing. Let it write and adopt its own by-laws and code of practice, suitable to its own special needs. Let each Society establish its own standards of professional conduct, scale of fees, and other procedure. Let each and every member of the Institute in the several States join these local State Societies and by their influence and example become to their brother practitioners a "shining light." Let the Institute invite all State Societies to affiliate with it as Societies, allowing each State Society representation at the Annual Conventions in proportion to its membership, but providing that every society so affiliated shall pay to the Institute a per capita tax on its membership. Delegates from the State Societies should be permitted to vote on all questions at the Conventions



First Prize—Adiel Martin Stern.



Second Prize—Sigmund J. Laschenski.

The Cope Memorial Prize Competition—1920. Conducted under the auspices of the T-Square Club, Philadelphia. The program called for a municipal comfort station of stone, decorative in character and following classic precedents. The members of the jury were Messrs. Leicester B. Holland, Milton B. Medary, Jr., and George Howe.

except strictly Institute business. Permit the State Societies to honor any of their members who may have rendered some conspicuous service to society or to the profession by nominating them for election to Institute membership. Make membership in the Institute an honor to be sought after as well as a license to serve society.

Let the Institute ever jealously guard its good name by at no time ever lowering its standards for the sake of increasing its membership, but let its standards become ever more difficult of attainment to the end that the greatest honor that may be conferred upon an architect will be his election to membership in the American Institute of Architects.—F. E. DAVIDSON.

Mr. Chubb's Argument

As a result of the deliberations of the Fifty-second Convention at Nashville a year ago, it seems to have become the proper thing to give rather widespread publicity to the ills and weaknesses of the Institute, and of the profession of Architecture as a whole. The consequent indecision in the public mind as to the status of the architect in his various relationships as designer, engineer, professional and business man, has, as a result, become even more vexed. The reason is obvious—the architects themselves have come to no agreement on these matters. It is in the hope that, at the next Convention, our own minds may be more fixed in these relationships that the following study of Institute Organization is recorded.

No doubt the self-searching inquiry of the Post-War Committee has given rise to the criticisms, constructive and otherwise, of both Institute and Profession. The pity is that these critical discussions could not have been kept in the family, so to speak, and the results only, in agreements reached, made public. The *Journal* should have been the forum of Institute members and not the architectural press, where contributed articles have inspired editorial comment ranging from how the Institute should be run, to "insidious influences" in control of the Convention. Again, the Institute has been assailed by its own members in the official organs of the State Societies. To the voyager on the ship of the Institute the Strait between this Scylla of "insidious influences" and Charybdis of "destructive criticism" has been reached; and he will sail through safely at the Convention, for our Scylla and Charybdis are myths, as of old. They are but the familiar "conservative" and "radical" of all organized society, and each will give and take at the decree of the majority of Institute voyagers. They are both necessary; the one to produce growth, the other to conserve strength. We must therefore cease calling the one "insidious" and the other "destructive."

The Institute and the practice of architecture as a result of the studies of the Post-War Committee are going through a process of reorganization. The work of the Committee has been for great good. Some of its conclusions will of course be debatable, but they will be for the delegates of the Convention to decide, and decisions will not be prevented or reached by "influences that have been so insidiously in evidence in the past," as is charged editorially in one of our weekly architectural publications. The Institute membership is competent to reach its own conclusions without the aid of that publication.

A glance back through the lists of past Institute Officers does not suggest a cause for changing our method of organization in that respect. That there has been a "failure of the Institute to keep the profession prominently before the public eye" is no doubt true, but that is not the object of the Institute as expressed in its Constitution. The Institute is not an advertising medium for its members. Its expressed ideals are above the modern conception of business and industrial efficiency and of limelight publicity.

The officered organization of the Institute is designed to serve its members in the Chapter organizations by promoting their professional advancement. It can only serve society at large indirectly through its members and Chapters. If it has failed as an instrument of social service it is because its members and Chapters have failed. An architect may plan and design his building but a contractor builds it. It would seem that the critics of the officered organization desire that the officers be both architect and contractor. Again, the United States is so large that the architects' service to society in one locality must differ from that in another. Here it is housing, there it is city planning, next it is farm houses, and yet again city tenements. These problems must be solved locally by the Chapters. In the public eye, then, the Institute must be known through its members and not through its officers.

Certainly no one contends that architecture in the United States is not improving. A comparison of the work of a generation ago with that of today will show that we have made tremendous strides in plan, design, and construction. though our business methods have not kept pace with progress in these lines. Fine buildings will ever be the silent advertisement of the profession and the index of its efficiency; and who will say that the Institute has not contributed in large measure to present-day results?

In numbers, the Institute, during the past five years and in spite of the war, has enjoyed the greatest period of growth. More than four hundred new members have been added in this period as against three hundred in the thirteen years previous. Why, then, the humiliating public self-criticism?

Let us examine the charges of our critics and their proposals for curing our ills.

"What is the matter with the Institute?" asks the Bulletin of the Illinois Society, editorially, and answers that "it is not, in so far as its membership is concerned, actually representative of the entire profession. . . . As to why there has not been a greater tendency to join the Institute, the answer would seem to be very plain. It is simply because of the ultra-aristocratic attitude toward all matters pertaining to the entire field of architecture."

Mr. Glenn Brown presents the other side of this question as follows: "I believe that quality is far more important than numbers. One member of the Institute whose standing and character is a light to the country is of more value than a dozen men who are unknown or not favorably known."

One writer, then, desires greater democracy in the Institute; the other desires it to be a professional aristocracy. The former charges that the Institute is "too good" for the great body of American architects; the other that the great body of American architects is not good

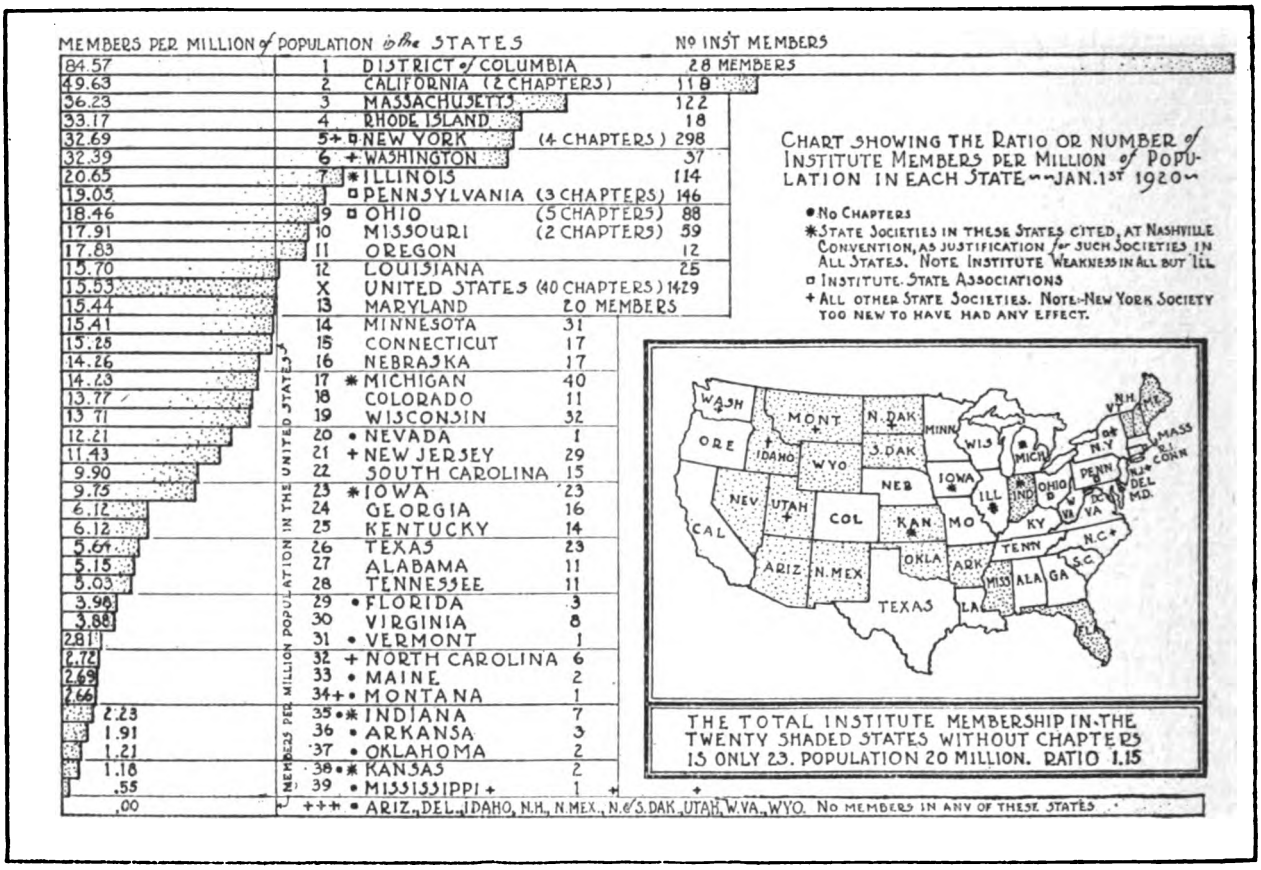


FIGURE I.

enough for the Institute. In a sense both statements are the same, so both writers propose the same remedy, that of encouraging the organization of State Societies. If aristocracy is desirable the reasoning is sound. If democracy is desirable the reasoning is unsound, for if lack of democracy is the Institute's malady, the cure proposed is that of inoculating another "body" with the serum of democracy. Usually, when one is sick, the serum is injected into his own system, and that is what the Institute needs. In other words, let us democratize the Institute by democratizing the Institute, and not by organizing democratic State Societies. The latter action can only make the Institute more "Ultra Aristocratic"—if *ultra* can be *more*. Is that what either writer, or the Institute, really desires?

Democracy in the Institute

As long as the Institute sticks to its present standards and remains a body of the aristocracy of the profession, there is room for another kind of architectural society. Adhering to present standards, however, is exactly what the Institute cannot afford to do; for the "standard of practice" is variable in each community. That the standard of practice is of greater competence in great centers is not debatable. There are better architects in Greater New York, Boston, Philadelphia and Chicago than in a city of Kansas. The Chapters in these four great centers constitute nearly forty-two (42) per cent of the total Institute membership. Is, then, the Institute truly the *American* Institute? Who is to fix the professional standards of the Institute?

We cannot create a yard-stick that will measure professional ability and standardize it for all sections of the country. What standards are we going to accept as a basis for Institute membership? If it is to be fixed and measured by the standard in the great centers, then it would seem that State Societies should be encouraged. If it is to be relative and measured by the present standard in any given community then there is no room for State Societies. Every honorable architect of professional ability above the average of his community should be in the Institute. If he is not, the Institute deprives itself of any influence whatsoever in increasing the standard of practice in his community, and what is even worse, it deprives itself of the very attainment of the objects for which it is organized:

> **"The objects of this Institute shall be: To organize and unite in fellowship the Architects of the United States of America, to combine their efforts so as to promote the aesthetic, scientific, and practical efficiency of the profession, and to make the profession of ever-increasing service to society."**

Certainly that is democratic enough, and yet there are twenty states in the United States of America which have no Chapter. (See Fig. I.) The total Institute member-

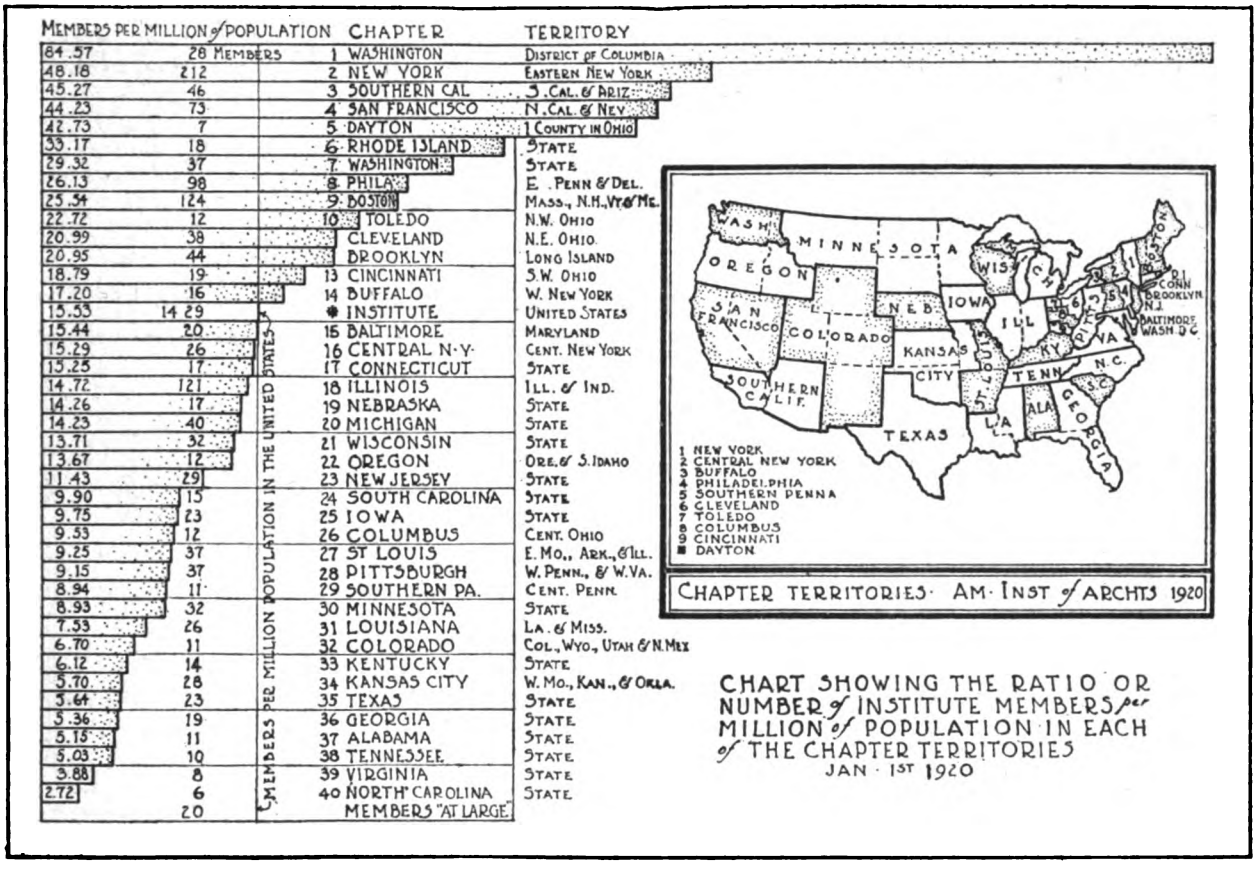


FIGURE II

ship in these States is twenty-three, and the total population in excess of twenty million. The Institute serves society here at the rate of about one member per million of population. These states are for the most part architectural deserts. To make them bloom we should have sowers of seed right on the ground, and not a thousand miles away in a center of architectural aristocracy. Chapters should be at once established in many of these states, and in establishing them we must remember that, though the standard of practice is low at the outset, it too is capable of growth.

There are hundreds of eligible architects in the United States, where Chapters exist, who could be admitted to the Institute without reducing its present standard one iota. The additional hundreds, who are perhaps below that standard, and yet above the average ability of their community, should be sought out and invited by the Chapters to become at least Chapter Associates. Until this is done there can be no "fellowship" for them, and the Institute cannot "promote their aesthetic, scientific and practical efficiency."

If either a professionally aristocratic Institute or State Societies, or both, are desired by the Institute, the objects for which it is organized, as stated in the Constitution, should be changed. In seeking to make the Institute more democratic by adopting a relative standard of membership to meet local conditions, we should remember that a most desirable form of aristocracy is still possible within the Institute; that of the election of "Fellows of the Institute." Certainly to be thus honored by the profession is far more desirable than any honor the public will ever hold for an exclusively aristocratic Institute. A more democratic way of nominating Fellows should be found, however.

State Societies of Architects

At the Nashville Convention the Illinois Chapter resolutions regarding State Societies were passed under most peculiar conditions. The first resolution directed that the Board encourage the organization of State Societies, and the second sought Chapter co-operation with such societies. The Board presented both to the Convention with the approval of the second resolution only. The Convention then passed both, without one word from the Board as to why it refused to encourage the organization of such Societies, and without a word of debate on the floor. (See Proceedings Fifty-second Convention, p. 35). At least five Chapters have since taken action against the organization of State Societies.

Mr. Davidson, in an editorial in the Bulletin of the Illinois Society entitled, "What is the Matter with the Institute?" distributed at the Convention, asks the following questions: "Will the Institute encourage the formation of State Societies of Architects, admitting to

membership every honorable practitioner? Will the Institute encourage the Federation of State Societies?" The Institute blindly answered "yes" to the first question, in spite of the fact that mere honorability is an absurd basis for membership in any professional society. Why should we be willing to encourage any society, the professional standing of whose members we confess is that of incompetence? Is that an ethical way to serve society?

The second question need not be answered, for State Societies once organized in the several states will answer it for us. Such a Federation will be inevitable; and we will have created, as the President of the Institute puts it, "A tail big enough to wag the dog." In fact, the tail will be four times as big if the ratio of State Society to Institute membership in Illinois is maintained throughout the country. Let us hope that the tail will be "honorable" but that the brains will remain in the head.

Mr. Hammond, in "Constructive Criticism," in the same number of the Bulletin, in advocating such a Federation, writes: "Well regulated competition between the Institute and Federation would tend to enliven the Institute and should be welcomed rather than avoided." Architectural competitions seem to be hard to regulate at all. But why competition? The objects of two such organizations are identical. The only competition will be for members, and it must ultimately end in a decision. In whose favor will it be—the Institute's or the Federation's? Assuming no decision, the effectiveness of the profession, nationally, will be materially diminished. The suggestion of such a competing body is not constructive criticism.

Quoting again from Mr. Davidson, the State Societies' chief advocate at Nashville, as at Philadelphia the year before, we find the following: (p. 104, Proceedings): "Indiana formed a State Society, modeled after the Illinois Society, and you know what happened to the Indiana Chapter. The only organization in Indiana today is the State Society." Is this supposed to be a recommendation for encouraging State Societies? The Michigan and Iowa State Societies were lauded by the same speaker, as was the Kansas Society by Mr. Goldsmith. More will be said later of the effect of these societies on the Institute in the five States named.

Much has been claimed for the State Society as a training ground for the Institute. Three short years ago at Minneapolis, the Chapter Associate Class was adopted. This class of Institute membership has, properly used, every advantage claimed for the State Society. It provides "fellowship" for small annual dues. It brings a larger number of architects to the service of society from the Institute viewpoint. It provides a period during which the Institute members of a Chapter may observe the professional attainments and ethics of the Associate. It is a balance in which he may be weighed, and if at the end of three years he is found wanting he automatically drops out of the Chapter. The professional existence of an architect which cannot be justified in that time should be no longer sponsored before the public in either Institute or State Society. The possibilities of this class of membership have not been seriously considered. It is our real training school and recruiting ground. The idea of organizing State Societies "to get members into the Institute" is most unwise. If it can be done that way, it can be done by the direct action of the Chapters.

Departing from argument, let us look at some facts regarding the Institute in those States where Societies exist. If service to society is an object, a fair basis for comparison of Institute strength in the various states would be the ratio of members per million of population. In the chart (Fig. I) that ratio is determined, based on the last census and on Institute membership as of January 1, 1920.

This ratio for the five states whose Societies were extolled at Nashville would seem to show an Institute weakness in all but Illinois, which is just above the ratio for the United States as a whole. Michigan is just below, Iowa well below, while Kansas and Indiana are hopelessly so. These four important states, with over ten million people, should be Institute strongholds. Kansas and Nebraska offer a fair comparison. Kansas, with a Society, has two Institute members. Nebraska, without one, and with a much smaller population, has seventeen members. From the Institute viewpoint, encouraging State Societies seems a strange policy.

Six other states with Societies fall far below. In all of the thirteen states with Societies only two exceed the ratio for the Institute as a whole, namely, Washington and Illinois, the New York Society being too young to have had any effect either way. It is interesting to note that the three states in which State Associations organized under the Institute By-Laws show a ratio above that of the Institute as a whole. That these Associations have their weaknesses, there is no doubt. They should have been reorganized rather than disbanded.

The writer can see no incentive for State Society members to join the Institute. They derive all the benefits of the Institute accruing to the interest of the profession through co-membership with Institute members in the Society. Membership in both organizations necessarily diminishes the service given either. In general, we must conclude that State Societies are, and have been, an element of Institute weakness, with Illinois, perhaps, the exception that proves the rule.

Chapter Territories

Fig. II is a similar study based on the Chapter's service to society in the territory under its jurisdiction. Twenty states have no Chapter organizations. They are added for convenience to the territory of Chapters in other states. A more ineffective method of organizing the Institute in these states could not be devised. The fact that there are twenty-three members of the Institute in twenty states with a population of over twenty million is a conclusive proof of the failure of the system. What possible incentive is there for the Boston Chapter to secure Institute members in Maine, New Hampshire, or Vermont, where every legal condition of practice is different? There are three Institute members in these states. What possible interest has the Kansas City Chapter in the laws governing practice in Kansas or Oklahoma, or in housing, city planning and architectural education in those states? Why should the Illinois Chapter desire to increase the effectiveness of the Institute in Indiana?

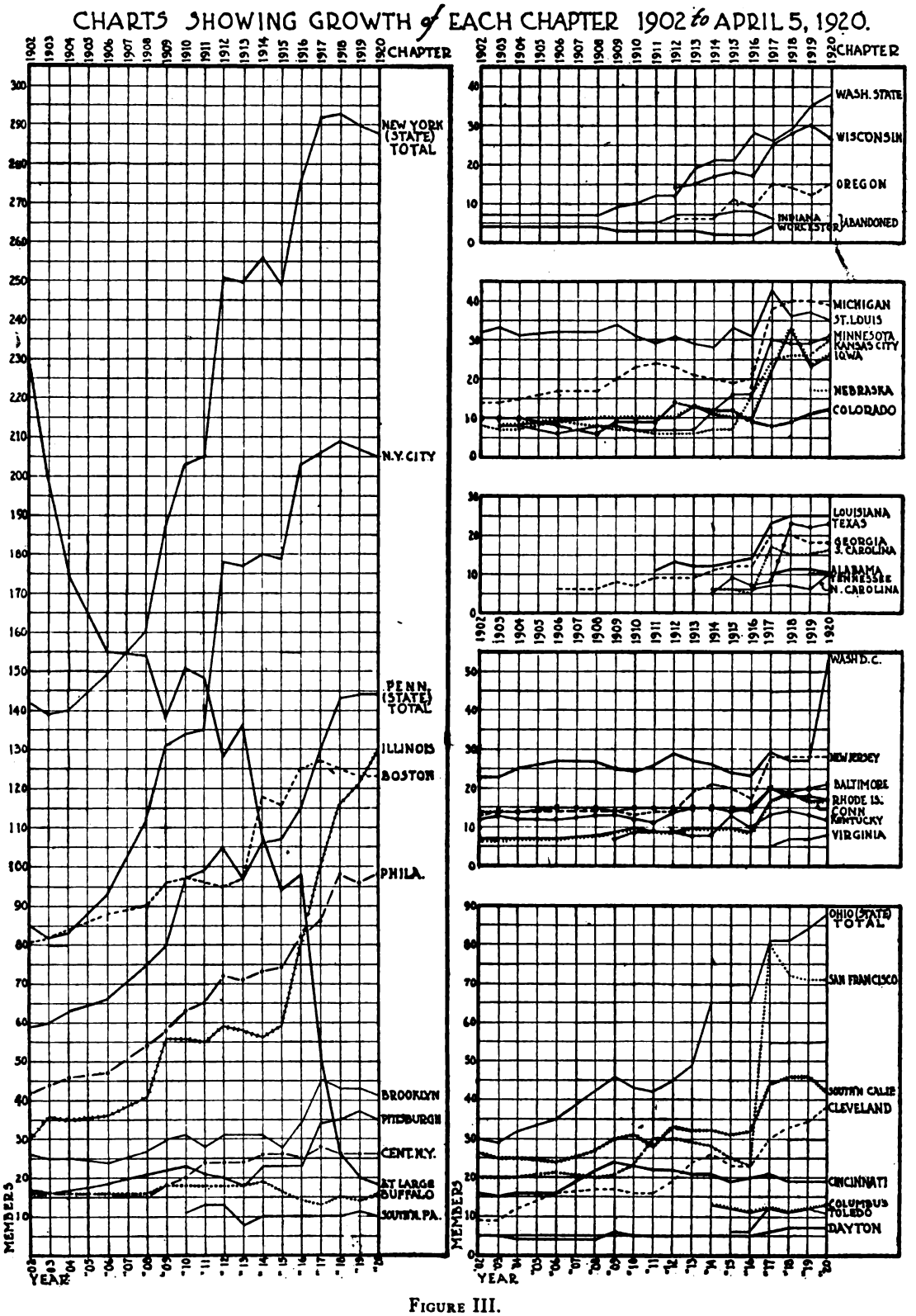


FIGURE III.

It is interesting to note that the Illinois Chapter serves society in its territory at a ratio below the average of the Institute. Is it turning over to the two State Societies the work that the Institute should do in Indiana and Illinois?

There is one answer to this sorry condition. Chapters should be organized in at least eight more states if the professed objects of the Institute are to be attained. In the remaining twelve the "at large membership" should be re-established, for a man in far away Montana can have no interest in joining the Institute through the Minnesota Chapter. He will never attend its Chapter meetings, there is no "union in fellowship" and his professional standard is in no way improved by such a system.

Increased Institute Membership

If what has been here written is not followed by a few suggestions, it will have served no purpose. Increased membership is alone the only method of democratizing the Institute. The Institute must have a vigorous membership campaign in those localities where it is weak. These may be easily determined from the data presented in Figures I and II. This brings up the question as to what the Chapters in these localities are doing to improve this weak condition? To answer this question, a study of the growth of all the Chapters since 1902 to April, 1920, is presented in Figure III, and the relative rank of the Chapters in rate of growth is presented in Figure IV.

Obviously a Chapter which ranks above the Institute as a whole in Figures II and IV is in a most active, healthy condition, and is doing its full duty by the Institute. The Washington State, Southern California, San Francisco, and Cleveland Chapters are then to be congratulated.

If the rank is above in one table and below in the other, the higher rank should be in table IV as this indicates that the Chapter is increasing its service to society at a more rapid rate than the population in its territory is growing. If the rank is below the average of the Institute as a whole in both tables, its condition is not good. Does your Chapter rank in this class?

Of course, there is a Chapter factor which should be considered in studying these statistics. For instance, the membership per million of population in the Southern States would be below normal due to the large colored population. Each Chapter will have to determine its own factor in determining its strength in the Institute. The great variation in these vital statistics of the Chapters would indicate that much is to be desired from many Chapters.

Mr. Glenn Brown has recently proposed abandoning all local Chapters, and having State Chapters only. For some reason society has a habit of collecting in cities. If the Institute is to be of "ever increasing service to society" it must be so, through local organizations or Chapters, in actual contact with the local needs of every city. Rather than abandon city Chapters, their number should be greatly increased. Every city of 100,000 people should have its Chapter. Such a city is large enough to demand architectural competence in the solution of the architectural problems through which the great mass of society knows the profession. Such competence is there, perhaps in

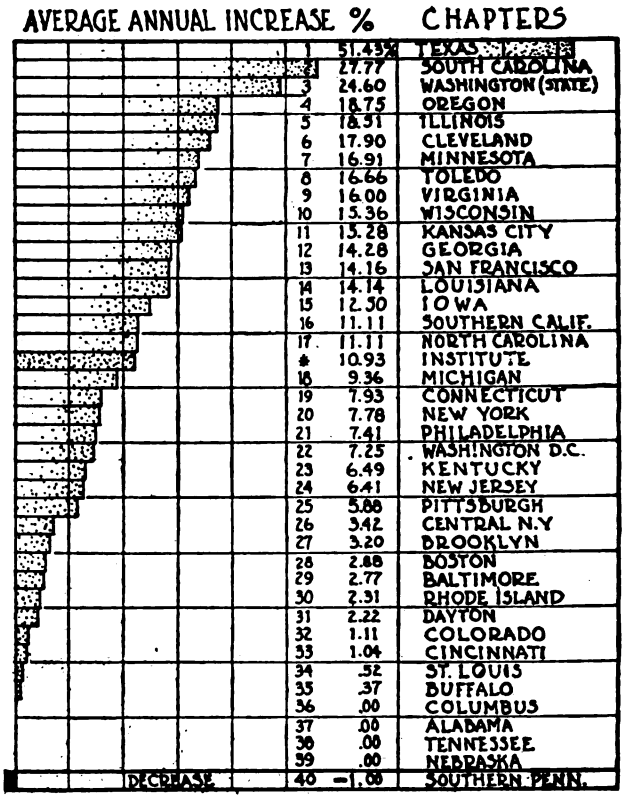


FIGURE IV

small numbers, but it takes only five members to form a Chapter. Why was the number set so low? In this connection it should be noted that the Washington State Chapter, herein rated high as a live Institute Chapter, is proposing two new city Chapters in that State.

State Chapters

State Chapters are of two types: Those in states with a single large city, such as Illinois, and those in states with no large city, such as North Carolina. In the former, the city Chapter will not organize the state and there is room for either a state association organized by the Institute, or, if the Institute will not act, a State Society. In the latter the Institute State Chapter can perform every service claimed for the State Society. Its membership is scattered well over the State and is, therefore, in touch with the local conditions. These Chapters should have a large number of Chapter Associates in training for Institute membership.

Institute State Associations

Several states have two or more local Chapters, either city or district. Here again the Institute is in touch with local conditions. New York, Pennsylvania, and Ohio have, or have had, State Associations organized under the Institute By-Laws. These Associations are, like the Indiana and Worcester Chapters, being thrown into the

Institute discard, and State Societies advocated in their place. No effort whatsoever has been made to correct their faults, principally that of lacking democracy. Article VI, Section 5, of the Institute By-Laws should be amended to provide membership in the State Association for every Institute, Chapter, and Chapter Associate in the local Chapters. In addition to these, every registered architect in the state, if such are legally resident in the state, or every architect of average competence, should be full voting members in the Association. These Associations should be given a voting privilege at the Institute Convention.

Assuming the establishment of Chapters in Albany, Rochester, and Syracuse, in New York State, in place of the present Central New York Chapter, would not an Association of the six local Chapters, plus the extra-Institute membership suggested, be of as great value to the Institute, as is the State Society recently organized? It will be interesting to see the effect of this new organization on Institute membership in New York after a period of five years.

One must wonder where the "tail" of the State Society will wag next and topple over on Institute organism. The Indiana Chapter and the New York State Association are gone. The Ohio and Pennsylvania Institute State Associations will either live or have perished before these lines are in print.

The professed objects of the Institute do depend upon a more democratic Institute, which in turn is a function of membership. To be sure, quality is better than quantity, but we need a little of both more and better architects. State Societies can produce no democracy in the Institute, and their membership, based on honorability, or on a state license to practice, of no real standard as yet, totally ignores the idea of quality. Do not let us say to the small practitioner: "You are not good enough for the Institute, so we will encourage the organization of an architectural society to which your degree of competence, or lack thereof, will admit you."

Increased Institute membership through a membership campaign in every Chapter, through the organization of new Chapters, both city and state, and through the greater use of the Chapter Associate Class of membership is what we need. When we have it, the problems of democracy, state societies, and dues, will no longer vex the Institute Conventions.

In conclusion, let the Chapters and the members accept their share of the burden of criticism. In the final analysis, they alone can carry the principles and objects of the American Institute of Architects into effect.—CHARLES ST. JOHN CHUBB.

The Minnesota Program

The Minnesota Chapter has submitted to the Board of Directors of the Institute the following program of reorganization, and has requested that it be laid before the Convention for Consideration.

1—The Minnesota Chapter wishes to endorse previous suggestions of the Nebraska Chapter emphasizing the need for greater consideration of the local problems of the profession throughout the country.

2—The Minnesota Chapter feels that there is a great danger to the Institute itself, as well as to the profession at large, in the formation of other societies in the architectural profession. Local questions could be and should be solved better by the Institute than by State Societies.

3—To achieve this desirable end the Institute must give more attention to the local needs. Conditions vary in all parts of this country. To speak only of what we know in our territory: The Minnesota Chapter is supposed to cover the states of Minnesota, North and South Dakota and Montana. This is larger in area by 4000 square miles than the territory covered by the states of Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Maryland, Ohio, Indiana, Illinois, Michigan and Wisconsin. According to the census of 1910 the four states of the Minnesota Chapter had a population of 3,612,705, while the twelve states of the other territory had a population of 43,884,739. In the one case one lone Chapter covers the entire territory of four states while in the other case twenty Chapters cover, approximately, the same territory in square miles but including twelve states. How can conditions or standards be the same in these cases? Another interesting difference is that according to the 1910 census there were four cities in the Minnesota territory with a population of over 25,000 while there were 147 such cities in the other territory.

4—In the widely scattered, thinly settled parts of this northwest country it must be obvious that such men as try to practice architecture cannot practice it on the same rules of procedure as in the older parts of the country. Their standards must, of necessity, be different and cannot approach the set standards of the older parts of the country, though, fundamentally, they may be, and in most cases are, as high and fine in principle as those of the best in the Institute.

5—This calls immediately for a different set of standards. This, immediately, calls for LOCAL treatment. We contend that local jurisdiction should therefore be given to the Chapters of the Institute to handle these matters.

6—The answer is not, in our opinion, to try to organize and help these remote cases by the establishment of other societies. If the profession of architecture is to be fathered, helped and advanced it must be through the Institute, unless the Institute is to be merely a name, a prerogative of the few, and its true influence lost to a number of separate societies.

7—We wish to offer the following suggestions:

(*a*) That the country be districted geographically.

(*b*) That each district, under the rulings of the institute, be self-governing and set its own standards of membership.

(*c*) That each of these districts hold its own Convention each and every year, and appoint its delegates to then attend the Annual Convention of the Institute.

(*d*) That every reputable practicing architect be induced to join the Institute and take his part in the work for his particular district.

(*e*) This would raise the membership of the Institute to such a size that the dues could be reduced to the size such as is contemplated by the proposed State Societies and so remove the first and biggest objection to Institute membership.

(*f*) The self-governing feature would insure the LOCAL interest that is now lacking in the Institute and which is the second, if not the first, great reason for the creation of State Societies.

(*g*) That the district and national conventions be devoted to other things than routine business, that being handled by the Board of Directors of the National Body and the District Bodies.

(*h*) That the District Sections of the Institute start a series of educational moves along technical and artistic lines with the idea of helping architects who are isolated geographically and financially so that, by improving their service and its results, the standards of the entire country may be raised and the standing of the entire profession very materially improved.

(*i*) Until the profession has educated itself it is the merest waste of breath to speak of educating the public. It is an axiom that proper service and professional ideas will bring that recognition of the profession which it is now attempting to claim.

Therefore, we, the members of the Minnesota Chapter, ask you to submit the following resolution to the Convention:

Resolved, that the Board of Directors be requested to immediately appoint a committee, one member from each Chapter, to consider the re-organization of the Institute in such way as to make possible the proper local development of all parts of the country; that this committeee proceed to work at once and to prepare a program that can be submitted to the next Convention of the Institute for action at that time; that the fundamental idea, on which this committee shall carry out its work, shall be to make possible a working American Institute of Architects, including all reputable practicing architects without regard to their geographic location or the amount and class of work they may be doing.

A Sequel to the Bricklayer's Party

Following upon the action of members of the Philadelphia Chapter, as recorded in "The Bricklayer's Party," published in the Journal for March, in which was recorded the establishment of a class in plan reading under the direction of Mr Abel, the Institute has received the following appeal:

"Whereas, in conformity with the spirit of reconstruction and Whereas, we are desirous of erecting better and safer buildings in order to attain our object, and Whereas, there has been demonstrated in the class of plan reading for Journeymen Bricklayers of our city, under the supervision of Mr Victor Abel of the American Institute of Architects, the necessity of standardizing the symbols on all drawings, Therefore Be It Resolved: That we, the members of Bricklayers' Union No 1 of the city of Philadelphia, at our regular meeting, unanimously appeal to your learned association to interest your members in bringing about a uniform standard of symbols on all plans so that we may be in a better position to understand them more plainly and thereby secure better results for all parties."

To this resolution the Chairman of the Structural Service Committee has replied that the Committee has been at work for more than a year on standard indications for materials of construction, and that it hopes that the Convention of the Institute will authorize the Board of Directors of the Institute to promulgate these standards as soon as the Committee has completed its labors.

The New School of Architecture at Princeton University

Princeton University announces the maturity of a plan which has been in process of development for several years and which now takes definite shape in the new school of architecture. While the school is not to be formally opened until the beginning of the fall term this year, the presence of several students desiring to take the course has made necessary the opening of most of the courses prior to that date.

The formal announcement states that it is proposed to build the architectural work on the required basis of a Princeton Bachelor of Arts degree, and to that end the school of architecture has been established as a branch of the Department of Art and Archaeology. Thus the school is "designed primarily to coordinate the undergraduate studies of the men electing this Department who look forward to architecture as a profession, to graduate them with the Bachelor of Arts degree in four years, and to fit them for the professional degree in architecture in two additional years"

"It will be observed," says the announcement, "that Princeton University aims to produce an architect with a broad liberal education, trained in his own art, and well grounded in the history of the arts throughout the ages. Practical details, which can be really learned only by experience in an office, are eliminated from the curriculum in order to allow the student to devote all his time to the acquisition of that broad knowledge and point of view which constitute the best training a school can offer him. Quality, not numbers, is sought, and the close personal supervision of each student's work which is made possible by the comparatively small size of the student body. The design problems of the graduate years are criticized, in personal interviews with the students, by prominent architects who have consented to share each year's work in this field and who form the Advisory Board of Architects."

The Advisory Board is as follows: Messrs. Chester Aldrich, Henry Bacon, Ralph Adams Cram, Burt L. Fenner, Frederick A Godley, Thomas Hastings, Charles Z. Klauder C. Grant La Farge, Benjamin Wistar Morris, S. B. P. Trowbridge, and Lloyd Warren.

The Draughtsman's Page

GEORGE BAIN CUMMINGS, Associate Editor

STUDIES IN CO-OPERATION AND DRAUGHTING ROOM MANAGEMENT

To assist in the movement to create a better understanding between architects and their employees the writer has undertaken an inquiry into existing policies of co-operation and methods of management. Some of the most interesting of these are outlined in the paragraphs that follow. Contribution to, and discussion of, these findings are invited. Let us pool our experiences for the common good.

One of the most interesting co-operative plans is being worked out by a group of young men, each endeavoring to establish his own practice. Office space is rented from an older practitioner. Each man has his draughting and desk space, and shares in the use of the reception rooms, and in the services of stenographers, bookkeepers, office boys. When one man has little work of his own to keep him busy, he helps his busy neighbor who cannot handle alone all his own work. All are thus kept continuously employed, overhead expense is held down, each man shares in the experience and ability of the others, there is sufficient flexibility to care for a growing or fluctuating practice, and each man exhibits the apparent possession of a suite of offices much more impressive than he could hope to engage privately. Admission to such a group has to be on an elective basis, of course, because the benefits of the arrangement can be realized most profitably only when all the participants are perfectly congenial.

This plan suggests the possibility of amplification. It would seem profitable for the older practitioners to co-operate in the use of office space and assistance. The combination and concentration of facilities would assist in materially reducing overhead, in solving the serious problems of expansion and contraction as the practice fluctuates, and in keeping the draughtsmen continuously employed, through a reservoir from which all the architects participating in the plan might draw in accordance with their needs. It is conceivable that substantial savings could be effected by placing contracts for blue-printing, stationery, supplies, and telephone service for the whole group.

Another interesting co-operative plan has been worked out to permit of very full participation by the employees in the work and interest of the firm. All the employees who demonstrate their ability and loyalty have a voice in the councils of the principals and heads, and problems of policy and procedure are settled by the vote of all. Matters of design are settled in the same spirit, after open discussion, criticism, and voting. A very large measure of self-government and individual responsibility is allowed the employees who respond splendidly, as would be expected. Any employee may have an interview with any principal or head whenever he wishes, and there is a sincere attempt on the part of all to understand the other man's point of view, and appreciate the good in him. Time is taken at more or less regular intervals to sit down "around the table" and discuss matters of all kinds that affect the profession or the larger life. It is a perfectly free and unrestrained forum, and all work is laid aside for it.

Another feature of this plan is the arrangement by which employees may introduce work into the office, and share in the profit from it. Every member of the organization is encouraged to secure work and bring it into the office. The work is handled like all other office jobs, the one introducing it working upon it in accordance with his ability, and sharing otherwise in the conduct of it. His name appears with the firm's on all instruments of service, and after the job account is closed he receives a percentage of the net profit, which is in addition to the salary he has been regularly paid while the work was in progress.

Profit sharing and bonus plans have been worked out in other instances. In the one case a distribution of a portion of the net profits, when above a certain sum, is made to employees on the basis of length of employment and salary earned. In the other case if a job earns a profit over a certain sum, the job captain or man in charge receives a bonus; or, under a squad system, the members of the squad receive proportionate bonuses. Under such an arrangement a budget is sometimes set up at the beginning of the job, allowing so much cost for each stage of the work. Whatever the captain saves on that budget, is his bonus.

There are at least two objections to either plan mentioned in the above paragraph. One is that effort is stressed away from service and upon profit. Instead of making the service of architecture cost the public less, the tendency is to seek higher fees. Instead of making primary the quality of the service rendered, the tendency is to skimp on that service in order to secure the greater profit. And the second objection is that the average draughtsman, who is trying to order his life in a sensible manner, would prefer a dependable and adequate income to a somewhat smaller regular salary and the speculative prospect of a bonus or an uncertain share in profits. Gambling is unscientific.

Compensation is probably the most usual bone of contention between architects and their men. Where the least trouble over this matter is found, it appears that draughtsmen are paid just salaries—just relatively, as regards the ability of the members of the same organization, and as regards salaries in other organizations; and just absolutely, as regards the cost of living; that their deserts are carefully noted and their salaries adjusted accordingly without pressure from themselves; that a fair allowance is made for sickness, and for making up time lost for legitimate reasons; that the usual holidays are allowed without loss of pay; and that vacation in proportion to length of service during the year is allowed with full pay. It is pretty generally admitted by now that time clocks and systems of checking in and out defeat their own purpose, and that much more can be accomplished with a loyal, spirited organization coming and going according to the clock of its

conscience, than with a herded group who check in and out and watch for a chance to "get even."

The question of time lost through jury duty is answered in some offices by making up to the man the difference between his salary and the amount received for the jury duty. It is recognized in this as in other similar matters that a man must occasionally take time away from his work to care for his personal affairs, and if his attitude and record are good, this time is allowed him without loss of pay.

An enlightened policy in laying off men is being adopted in many offices. Of course, any laying off is to be regretted as a loss in efficiency and a source of economic waste; and it is conceivable that under a broad plan of co-operation, this can be considerably reduced, if not wholly eliminated.

But where it still is necessary to dismiss a man he is given every opportunity to make a new connection without loss of income, no time limit being fixed at the end of which he must leave whether he has secured employment or not. In this same connection, let honor be given to those architects who have the courage to advise those of their employees who have proved that they can never rise in the field of architecture, to apply their effort in the field in which they seem better fitted. The temptation is great to continue to profit by their steady work at low wages. Few resist the temptation. May their tribe increase!

Proposals regarding the training of draughtsmen in offices are being revived. In most offices the men are allowed free access to the books and plates in the firm's library. But in very few is there any attempt made systematically to train and develop the draughtsmen. In many instances there is a definite program of work and study laid down for an office boy, ending in promotion to the draughting room. But then his further development is left to himself, or to the friendly guidance of his older draughtsmen associates.

In a few notable cases a sincere effort is made to give the draughtsmen training in every phase of the work—design, draughting, detailing, engineering, specification writing, superintendence and accounting. This should be more generally done if only to justify our claim to be classified as "professional." A suggestion related to the above has proved of great mutual advantage where tried out; that is, to afford the draughtsman opportunity to visit the work executed from his drawings. It is of the greatest educational value to the draughtsman, and in his increased enthusiasm and more intelligent conception of the meaning of the lines he draws he is of greater value to his employer.

Little details of equipment and service which seem relatively unimportant to the architect may seem quite large to the draughtsman. They all contribute to his environment, they all influence the quality of his work. You will find them in the offices where the employees are contented, loyal and enthusiastic. I refer to such items of equipment as standard, individual drawing tables with private drawers; comfortable stools of the right height; a floor surface or covering that does not chill the feet; clothing lockers, clean toilet facilities, with hot water; individual towels and soap, pure, cold drinking water and individual cups; and to such items of service as the use of the telephone for personal matters; the use of stenographic and typewriting service, and postage and stationery at cost; facilities for receiving callers, mail and packages; financial accommodation in cashing checks, and extending loans where the case is worthy.

One office, appreciating a draughtsman's interest in his finished drawing, presents him with a blue-print of every important or noteworthy drawing made by him. Another office has adopted a wise policy with regard to overtime. On the theory that everyone needs rest and recreation, no employee is asked or permitted to work longer than a total of ten hours overtime in any one week. Most offices close entirely on Saturdays during the warm months of the year, the employees making up the time in accordance with some mutually convenient arrangement.

The more study and thoughtful consideration given to these matters of co-operation and *human* management, the better. With the world so generally upset, it behooves our little vocational group to do all we can to solve our own problems, as a considerable part, and certainly the first part, of our contribution to the solution of the larger problem.—GEORGE BAIN CUMMINGS.

The Architects Small House Service Bureau, Inc., of Minnesota

What with so-called "plan factories;" lumber yards establishing draughting rooms to make "free" plans for buyers of their wares; material manufacturers and associations holding competitions for model houses to advertise their products; the inability of the average architect to design small houses at a price that can tempt the man of small means; and the general lack of knowledge and understanding on the part of the greater public in regard to appearance, taste, comfort and value, the entire architectural situation, in so far as it relates to small houses, seemed, to one group of architects, to be getting into very bad shape. Moreover, due to able but unscrupulous advertising on the part of certain interests, this situation is spreading rapidly to large homes and buildings and is making very definite inroads on the legitimate professional practice of architecture.

To meet this situation a group of Minnesota architects. all, as it happened, members of the Minnesota Chapter of the American Institute of Architects, conceived the idea of a co-operative effort to provide accurate, carefully thought out plans for small houses of 3, 4, 5 and 6 rooms. And so, in the early part of 1919, Articles of Incorporation and By-Laws were drawn up for the "Architects' Service Bureau of Minnesota, Incorporated."

Each architect, or firm of architects, subscribed to one share of stock, at par value of $100.00, and agreed, in addition, to contribute for a stated length of time, sketches of various types of small houses, each member providing two sketches per month on a definitely arranged program. A central office was arranged for wherein those sketches approved by the special Sketch Committee were drawn to scale along certain approved standards and presentation

drawings were made. Working drawings, specifications and bills of material followed in due course until each design was ready for the market.

In the mean time the American Institute of Architects, in Convention at Nashville, expressed itself in favor of the Institute taking action on the small house problem. The results of the small House Committee's work are given in its report to the coming convention at Washington. It is enough to say here that the committee based its plan on the Minnesota idea and that the Board of Directors and Executive Committee of the Institute gave its indorsement to both. Credit should be given the Minnesota Bureau for holding back its plans till the committee was able to work out the national scheme and the approval of the Board was given. The name, Articles and By-laws of the Minnesota Bureau have been changed to conform to those suggested by the committee for the national plan.

The name is now, "The Architects' Small House Service, Bureau, Inc., of Minnesota." Mr. Maurice I, Flagg. perhaps best known through his connection with the Minnesota State Art Commission and the Minnesotan Magazine, is the Director of Publicity and Sales. The first issue of the Bureau's publication is now going to press and will appear in time for the Convention.

The Bureau proposes for the present to give what might be called a limited service. It will have a goodly number of attractive small house plans for sale to prospective builders. By the sale of many of these it can provide them at such a low figure that anyone can afford to use them. Its service will consist of complete working drawings, details, specifications and bills of material including forms of bids and all necessary safeguards for its clients. It will be ready to advise with its clients in regard to finishing, furnishing, and decorating, as well as landscape planning. In making the plans the utmost care is being taken to avoid any useless expenditure. Sizes and dimensions are determined from the stocks carried by the manufacturers and dealers in its territory. Stock designs for millwork are used. Advice as to plumbing, heating, and lighting is included.

The publication of the Bureau will be for sale at a moderate price and will contain, in addition to the pictures and plans of the various designs of houses a large and carefully written amount of editorial matter relating to the financing, planning, and building of homes. A certain amount of carefully selected advertising matter will be carried as a help to those interested in building. The Bureau has been fortunate, for the idea appealed so strongly to the different manufacturers and business houses that were approached, that the Bureau is able to regulate the kind and class of advertising it carries and so can be sure that its clients get from its pages only the best advice and suggestions.

There is no way of judging how far the work of the Bureau will progress. Up to the release of the first issue of its publication it will have done absolutely no advertising, lest it be swamped. So much favorable comment has come in from all those who have heard of it that there is no doubt of its success. It has already turned down many applications for work as it desired to make its start slowly and rightly.—EDWIN H. BROWN.

Inter-Professional Movements Abroad

By ROBERT D. KOHN.

Throughout the war, all over the world people seem to have been thinking along parallel lines. It is interesting to note the starting of Inter-Professional movements in England, France, and in this country apparently in the same month and almost on the same day, each without any knowledge of the other. *The American "Inter-professional Conference" organization was accomplished at Detroit, November 29, 1919. In England a preliminary Conference was held on November 22, 1919, and on February 7, 1920, the "National Federation of Professional Technical, Administrative and Supervisory Workers" was duly formed at a meeting held in †London. In France the "Societe des Auteurs et Compositeurs dramatiques" addressed to the Architects in November last an invitation to join in the creation of a "Union Generale des Professions Intellectuelles ou Liberales," which invitation was accepted on December 11, 1919.

There must have been a common impulse back of these simultaneous beginnings, in three countries, to establish co-operation of some sort between professional people, but the impulse expresses itself in strangely different terms in each case. The English movement was organized by more or less official representatives of thirty or more societies. Its draft constitution continues the principle of providing for a Federation of Societies represented by official delegates. The American Inter-professional Conference provides for a continuation of the principle of individual membership rather than a federation of delegates. This was done by unanimous consent to avoid what was considered to be the danger of unprogressive policies likely to result from the co-operation of merely officially appointed delegations from the conservative professional associations of the country.

The attendance at the initial meeting was also quite different in London and in Detroit. The latter included doctors, lawyers, engineers, architects, dentists, librarians, educators, trained nurses, journalists, social workers, landscape architects and research scientists, but the English meeting included representatives of organizations as widely scattered as the Engineering and Shipbuilding Draughtsmen, the Chemists, the Orchestral Association; the Actors, Journalists, and Railway Clerks' Associations, and the National Union of Dock, Wharves and Shipping Staffs. Indeed, the list is so broad in its inclusiveness that one is inclined to notice that while the program called for a "Conference of Professional Associations," there was really effected a "Federation of Professional, Technical, Administrative and Supervisory Workers." The London papers referred to it as a conference of the "Non-manual workers" and "the black-coated workers." The architects who were so much in evidence in the American movement were apparently distinguished by their absence at the inception of the English association: (Indeed the R. I. B. A. is not even mentioned), but this may be due to the difference in the character of the two movements.

For those who are interested, a perusal of the reports of

*See the Journal for January, 1919.
†See the Journal for April, 1919.

the two meetings†† will be very illuminating as to present day national group psychologies. One very evident difference is that the American Inter-professional By-laws make no mention of "classes" anywhere. Doubtless some of its promoters had in mind that eventually this group would spread out and establish relationships with groups of workers in other fields, but for the time being the American movement is trying to bring into co-operation people who belong to groups that have at least a partial development of the professional sense—the sense of an obligation for service transcending the demands of those that pay for it.

As for the French Inter-professional movement that is still apparently in embryo and the accounts that come to us do not clearly define its purpose. "*L'Architecture*" of January, 1920, states that Monsieur Alexandre Bruel had reported at length to the "Societe Centrale des Architectes" on the advisability of having that Society co-operate with the Dramatists and Authors in their move to form a union of the liberal professions. Indeed, this report is printed in full, but while it is evident that Monsieur Bruel recommended a qualified acceptance of the Authors' invitation, (and it appears that this was done), it seems impossible to discover what the worthy architect was trying to say in his report (we must assume that he knew), or to what we may ascribe the qualification in the acceptance, unless it be due to what Monsieur Bruel says is the peculiar and distinctive professional position of the architect: "He is a cultured man; he is an artist; he stands as arbiter between the owner and the contractor and his workmen, hence because of this position he may not take part in any movement which might make him take sides in a conflict between the two." In the next breath Monsieur Bruel seems to say that "the architect has a hard time making a living if he wants to be honest" and he wonders "if he will not presently have to step down out of his 'beau cadre tout a fait inconnu du public.'"

An examination of the reports of these three Interprofessional movements in different countries is certainly very worth while. It is much too early to say which country is on the best path, given the problem of the distinctive national characteristics of each. It is certain that the movements never could be exactly alike and be effective, yet each will unquestionably profit from a study of the other.

Architectural Competition for the Remodeling of a New York City Tenement Block

In the Journal for March there was a summary of the then forthcoming report of the Joint Legislative Committee on Housing and the Reconstruction Commission of the State of New York, with an announcement of the competition to be held as above described. The program for this competition has now been issued, and a copy may be had on application to the Reconstruction Commission, Room 302, Hall of Records, New York City.

††The report of the English Inaugural Conference of Professional Associations is published in the Supplement to the *New Commonwealth*, London, February 13; The history and Abstract of Proceedings of the Organization Meeting of the American Inter-Professional Conference is obtainable from the office of the Executive Secretray, 56 West 45th Street, N. Y.

The Problem is stated as follows: "The remodeling of a characteristic old tenement block in the City of New York, so as to make it a decent place to live in. The object of the competition is two-fold; first to find the best method of improving living conditions in the old-law tenements without entirely destroying the buildings; second to find a plan of remodeling that will encourage such alterations by the demonstration of its economic wisdom and the value that will come from the improvement. The relation of costs to results obtained will be a predominating factor in determining the judgment.

The purpose of the competition is to find solutions that will be applicable not only to the block, which is the subject of the study, but also to similar blocks throughout the city. It is a competition of ideas as well as design.

The remodeling of one house in a bad environment is of little value. The improvement of a group of tenements is of real value. But the solution of the problem of the block as a whole would be of the maximum value to the tenants and owners of each house, to the neighborhood and to the community as a whole.

For the purpose of this study, the block bounded by Rutgers, Madison, Jefferson and Monroe streets, on the lower east side of Manhattan has been chosen. Living conditions in this block are not the worst in the city. Conditions here are characteristic of those to be found in hundreds of other blocks throughout New York.

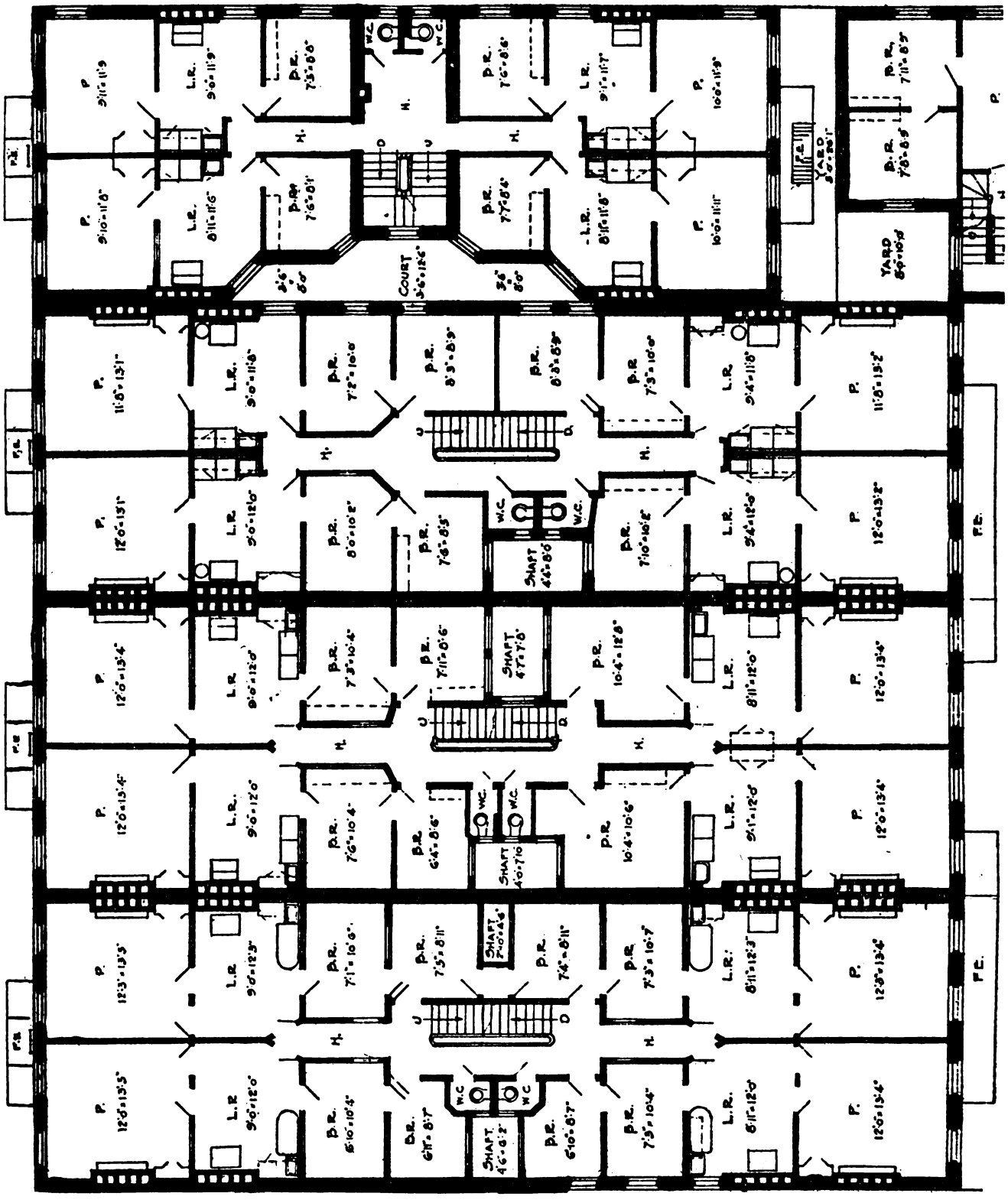
The competition is open to any person or persons. There are two prizes of $1,000.00 each, four prizes of $500.00 and four prizes of $250.00. The competition will close at 1 o'clock, June 15, 1920. The Jury is as follows: Messrs. Allen Robinson, Alfred E. Marling, Edgar A. Levy, Frank Mann, Clarence S. Stein, Charles C. Lockwood, Senator John J. Dunnigan, Andrew J. Thomas, Burt L. Fenner, Robert D. Kohn, Alexander M. Bing, and Miss Lillian Wald.

On the opposite page there is reproduced a section from the scale drawing of the block chosen as the basis of the competition.

Institute Business

New Members Elected

Name	*Chapter*
John Swing Willis	Baltimore
Edwin S. Coy	Brooklyn
Lawrence H. Bley	Buffalo
Louis Greenstein	Buffalo
Duane Lyman	Buffalo
William G. Kaelber	Central New York
Richard Owen Parry	Colorado
G. E. McDonald, Jr	Columbus
Robert Frost Daggett	Illinois
Henderson Kenneth Franzheim	Illinois
Merritt Harrison	Illinois
Albert A. Honeywell	Illinois
D'alton Bacon Shourds	Illinois
Ralph Waldo Yardley	Illinois
Virgil D. Alden	Kansas City
Leonard H. Bailey	Kansas City
James H. Forsythe	Minnesota



A Section of the Block selected for the Tenement House Competition in New York City, 218-224 Madison Street.
This is not representative of the worst housing conditions on Manhattan.

Frank C. W. Kuehn	Minnesota
Henry J. McGill	New York
M. E. Boyer, Jr.	North Carolina
A. Heath Carrier	North Carolina
Albert A. Chadwick	North Carolina
Willard G. Rogers	North Carolina
Harry J. Simmonds	North Carolina
George M. Post	Oregon
M. Edmunds Dunlap	Philadelphia
John Horace Frank	Philadelphia
Joseph Patterson Sims	Philadelphia
Charles Willing	Philadelphia
Robert Bruce Atkinson	Washington, D. C.
William P. Bealer	Washington, D. C.
Frederick H. Brooke	Washington, D. C.
John M. Donn	Washington, D. C.
A. Burch Fitz Simons	Washington, D. C.
Benjamin Courtland Flournoy	Washington, D. C.
Parke P. Flournoy, Jr.	Washington, D. C.
Philip R. Hooton	Washington, D. C.
Luther Morris Leisenring	Washington, D. C.
Joseph A. Lockie	Washington, D. C.
Victor Mindeleff	Washington, D. C.
Thomas A. Mullett	Washington, D. C.
Orlie J. Munson	Washington, D. C.
Walter B. Olmsted	Washington, D. C.
Frank G. Pierson	Washington, D. C.
Irwin S. Porter	Washington, D. C.
George N. Ray	Washington, D. C.
B. Stanley Simmons	Washington, D. C.
Delos Hamilton Smith	Washington, D. C.
Albert Speiden	Washington, D. C.
Francis Paul Sullivan	Washington, D. C.
Julius Wenig	Washington, D. C.
Leonidas Polk Wheat, Jr.	Washington D. C.,
Karrett C. White	Washington, D. C.
A. Hamilton Wilson	Washington, D. C.
Earl C. Parke	Washington State

Housing Conditions in France

Under the title, "Do You Know Under What Conditions a Part of the French People Live?" *The Journal of the Central Society of French Architects* reprints the following, written for the *Grande Revue* by Monsieur Pierre Hamp:

"The war has accelerated the slow sinking of humanity in the industrial regions. Never did brick so profit its owners. The Department of the Loire offers examples to be set down: Firminy, Unieux, Saint-Chammond have not the slightest shelter to offer. Saint-Etienne had about 160,000 inhabitants in 1914; the war has brought the figure to 210,000 and increased equally the housing wretchedness.

"In the Soleil quarter, where the miners live, the lodgers' beds serve not only one man by day and another by night, but often two sleep together, making four occupants each four and twenty hours The bed is never idle; neither is the bed nor room ever made; the room is always full. The child is generally absent from these hovels for men, which have been established by those who sell the most wine and the least food possible. One should go and see the lodging of a family in the Rue ——, or the family, D——, father, mother, and eight children from six months to twelve years, living in two rooms. In December, 1917, one saw there a little girl with her feet in the oven; but the fire is gentle, and she will not burn herself. She has no shoes with which to go out. Her tangled hair falls over her neck and hides a tuberculous ganglion. The eight children are alone in this wretched hole all day. Their father is a teamster. The mother is a washerwoman. The father and mother are not tuberculous. The children are, with the exception of the little one of six months, who will become so, like the others. Here is a family healthy in its origin and sent to its death by housing.

"A heap of filth in the Rue Roannelle reaches a third of the way up the facade of a house from which the detritus of seventy persons is thrown out. In the ground floor lives a family of six, mother and four children—fourteen, ten, five, and five months. The boy of fourteen is ophthalmic from the pestilence and humidity of the room. A thick gum covers his red eyes. He will probably lose his left eye. In a recess in the wall are four shelves. There is another above the stove. Besides these five shelves, there are two beds, a bench, a table. Before the stove there is an empty space of two square meters."

"In the same street, the family M—— is lodged free, in a second-story room, by the Committee of Assistance for Refugees. There are three beds and six children—eighteen, sixteen, thirteen, ten, seven, and one. Three are tuberculous. The others might be saved if they did not sleep with the contaminated. The girl of thirteen has become tuberculous and is dying with infinite slowness. Her bed is at the back of the room, opposite the windows; she keeps always in her place next to the wall, leaving the rest of the bed for the child who shares it with her by night. Only the clearness of her eyes lives in her pinched, dry face, about which clusters the untidy hair of the children of misery.

"Therefore, why complain, instead of approving, that among the 3,000 workers in the National Arms Works of Saint-Etienne, most of them young, there were only thirty births in 1916, while the doctors estimate the number of abortions as high as 70 per cent. Why ask women to bear children who must live six or eight in a room where the mother merely sits by and watches them die? Monsieur the under-Secretary of the Service of Health did not dare to ask, in the Senate, on the 14th of December, 1914, when apropos of tuberculosis in France, he said:

"'We must look farther than giving care to the sick; we must go to the bottom and destroy the insanitary hovels, dry up the source of so many of our social and individual ills, alcohol; surround maternity, the first days of infancy, with a protection intelligent and thorough. Gentlemen, the essential wealth, the veritable capital of a country, is its population. Let us safeguard resolutely from the peril of tuberculosis if we have any care for the future of our country.' (*Loud and repeated applause.*)"

"Anti-tuberculosis rhetoric creates a great satisfaction, but during the long time in which it has flowed, no one is better lodged. Let us distinguish the three orders of the fight against tuberculosis; rhetoric, medicine, building. The Minister in the Senate speaks and is applauded; the doctor in his dispensary treats and instructs the sick; but who will demolish the buildings? Parliamentary dis-

course has about as much value as a remedy for social evils as rice powder sprinkled on a cancer.

"France is rich enough to keep herself healthy and clean. The danger of war made her find the money necessary to pay for armament. If she had employed it in making herself healthy, she probably would not have been attacked. She would have been too strong. . . . With a tenth of what she spent in war she would have been able, during the last fifty years, to purify her cities and towns and save from death hundreds of thousands of men, women, and children, who had only a premature death to anticipate.

"Why has she not done it? Why does her money emerge only in face of an absolute emergency such as war? Because of economy. France will die of stinginess. She is committing suicide with a woolen stocking. Misery is a consequence of the spirit of economy. Few men prefer to die rather than to give their money. France does. She applies herself to death through avarice. She has a fear of debt. She prefers death.

"French architecture needs above all to apply itself to the art of destruction. We must demolish the tuberculous house and the sale of alcohol. Caring for the sick will not keep them alive if the spot where death attacks them is left in its filth. Will France decide to clean herself? Let us not wholly despair, but hope that it will be soon if she is to save herself. The Frenchman who takes no interest consents to the risk of his own life. Tuberculosis propagated in misery extends to the houses of the rich. The laundress who washes and irons the clothes of the fine lady, coughs death. The young girl of the fortuned man is attacked because he has not fought to save the children of the rotten ruins in which they are born. The wind that blows from the poor quarter to the rich quarter distributes its germ of death in the homes of those who could have helped to save their race, but who would not. They are chastized by their own iniquity; destiny obliges them to suffer justice, or death, for no one is certain to be saved by himself alone."

Book Reviews

The Design of Factory and Industrial Buildings

By Ernest G. W. Souster, Scott, Greenwood & Son, London

This is a brief treatise of the essential principles of the design of factory buildings, with illustrations of some of the recent important industrial plants of England. After touching upon the changed conditions relative to industrial buildings since the war with particular reference to the speeding up of production and the necessity of welfare work among employes, the author treats the subject by a presentation of the main types of industrial buildings, the essential considerations in connection with the selection of a site and the construction, lighting, heating, ventilation and sanitation of factory buildings. There are also several chapters devoted to such subjects as welfare work, scientific research work, fire protection, and the architectural character of industrial buildings.

The author announces in the preface that there seems to be a well defined demand in England for a "short book dealing with modern factory design." As far as brevity is concerned, this book will undoubtedly meet this demand because its treatment of many important features of this subject might very properly be classed as mere illusions, or suggestive hints of the various aspects of the different parts of the subject. It is to be regretted that the book does not devote sufficient space to a concise and forceful presentation of the really important principles upon which the design of modern industrial buildings are based. The book lacks force or conviction because of the absence of those reasons and facts upon which most of its important statements are based.—GEORGE C. NIMMONS

News Notes

AT its March meeting the Philadelphia Chapter adopted the following resolutions on Quantity Surveying:

"1. That any system of duplication of effort in estimating wherein each bidder separately estimates the quantities, should be condemned."

"2. That all competitive bids should be based upon a detailed schedule of quantities prepared from a survey of the plans and specifications and submitted therewith, the cost of the preparation of such survey of quantities to be borne by the owner."

"3. That while the owner should furnish a quantity survey as the basis of bids and contracts, and should submit them with the plans and specifications, and should pay for same, the bidders should make no charge to the owner for submitting proposals, based on said plans, specifications and quantity survey."

"4. That in general competitive bids should not be invited nor submitted on projects, the plans and specifications for which are not accompanied by a quantity survey, unless the owner agrees to pay a predetermined fee to each bidder for preparing the quantities and submitting an estimate."

These are the resolutions adopted at the Annual Convention of the Association of General Contractors, in Chicago, in March, before which Mr. Henry K. Holsman, President of the Illinois Chapter, delivered a paper in advocacy of the quantity survey. The *Journal* takes a good deal of pleasure from the fact that it has constantly kept this subject before the profession, which now seems on the point of adopting the quantity survey pretty generally.

AS THE Committee on Buildings of the Chicago Council recommended that the height of buildings be increased from 200 to 260 feet, the Illinois Chapter passed a resolution at its March meeting requesting the Council to refer the matter to the newly-created Zoning Commission. Opinion seems unfavorable to a change in the height restriction, and the experience of New York City is cited, with its memorable result upon land values.

ONE of the signs of the times is the projected ordinance in Chicago for taxing the professions under a license system. Manifestly we have merely begun to feel the inevitable necessity with which our municipalities are confronted as they contemplate the increased cost of carrying on all kinds of work. The phenomenal rise in taxation in England will no doubt find its counterpart here, but it is surely to be hoped that it will not be a hit-or-miss method.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY W. KERN, *Assistant*

In connection with professional societies, organized bodies, and the following committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:
BASIC BUILDING CODE. CONTRACTS. FIRE-PREVENTION. STRUCTURAL SERVICE

Brick

Building Brick

The word "brick," as commonly used, refers to a rectangular block of burned clay, but in recent years much brick has been made of other basic materials, such as sand-lime, silica, slag and cement. These are consequently designated as sand-lime-brick, silica-brick, etc.

Classification.—With respect to their intended use, brick are roughly classified as (1) Refractory, (2) Paving, and (3) Building brick. Brick may be classified also according to the method of manufacture as Machine-made or Hand-made; according to the method of moulding, as Soft-mud, Stiff-mud, Dry-pressed and Re-pressed; according to color as Clear, Mottled, Fire-flashed and so on; and in some instances according to size as Norman, Roman, English, and Standard.

Refractory Brick.—Refractory or Fire-brick are made of materials selected especially for their resistance to the action of fire and high temperatures. They are intended primarily for lining fire-places, kilns and furnaces, and many of them, while highly resistant to high temperatures, possess but little resistance to the elements, and they are therefore unsuitable for face brickwork or building purposes.

Paving Brick.—Vitrified and hard Building Brick are sometimes used for paving, especially for walks and terraces. The term Paving Brick, in a technical sense, however, refers to a brick specially made of shale or fire-clay for road and street paving, although used occasionally for heavy wall construction and face work. In the kiln these brick are burned to the point of incipient vitrification and annealed by slow cooling. They are tougher, denser, stronger and more resistant to abrasion than ordinary building brick, and through improved methods of manufacture now satisfactorily fulfill the requirements of a heavy traffic paving material. Until very recently paving brick were made in two standard sizes, 2½" x 4" x 8½" and 3½" x 4" x 8½". The American Society for Municipal Improvements on October 3, 1918, recommended that the manufacture of the smaller size be discontinued and adopted the 3½" x 4" x 8½" size as the standard size for all paving brick.

Building Brick—Building brick fall into two classes, Common Brick and Face Brick, according to their place in the structure. Common brick are intended generally for use in backing up face work, for fire-proofing, and for the construction of rough walls and piers. Certain kinds of common brick, especially if carefully selected, are employed for facing purposes, in which case the work is said to be faced with common brick. Common brick made in some localities are well adapted for such use. Some manufacturers list their selected common brick as face brick. The term of "front" brick, as generally understood, refers to a brick especially made or selected for its color, texture, the regularity or irregularity of its surface, etc., and intended for use where exposed to view.

Basic Materials.—The basic materials for building brick are clays (silicate of alumina) and shales, and in small and varying quantities silica, oxides of iron, lime, and sometimes magnesia, potash, soda, and traces of other salts.

Various clays and mixtures of clays and other materials are used for making brick, depending on the product desired. But, of course, the character of the clay available largely establishes the type of brick and the process of manufacture. The surface clays, which are easily and economically obtained, are generally well adapted to the manufacture of common brick, while the deeper clays and shales, containing less impurities, are used where special effects or a better quality of brick is required. Shale is a clay reduced under geological processes to a condition approaching slate, and because of its characteristics is used principally in the manufacture of wire-cut face brick and paving brick.

If alumina is present in too great proportion the clay is referred to as "fat" or plastic and brick made of it will shrink, warp and crack badly during the process of manufacture. The addition of a proper proportion of sand to the clay will overcome this tendency. But if too much sand is used the mixture becomes "short" like a mortar that is too lean and the brick are weak and brittle. In some clays the right proportions of alumina and silica occur naturally and the addition of sand is unnecessary.

Iron oxides, lime, magnesia, potash and soda act as fluxes in fusing the clay when burned. But if present in excess quantities the clay is unfit for brickmaking because the brick, in the process of burning, melt and lose their shape. A moderate quantity of lime tends to lessen the shrinkage of the "green" brick in drying. It should be present, however, only in a finely divided state, as lumps of lime cause the brick to break and pit on exposure and constitute a serious defect.

Iron oxide gives the brick its reddish color which varies in shade according to the proportion of oxide present and the temperature at which the brick is burned. Some clays contain but little oxide of iron and while brick made from such clays may be light in color, they may yet be hard and durable. The quality of a brick, therefore, cannot

be judged by its color alone. Limonite and pyrite, sometimes present in the clay, are classed as impurities. Limonite will cause fused blotches or weak spots, and pyrite burns away leaving flaws.

Processes.—Today but a small proportion of brick are hand-made. During the past twenty-five years great improvements and progress have been made in machine methods of manufacture. Many of the smaller plants have given place to large plants, some of which have a capacity as high as 100,000 face or 500,000 common brick a day.

The process of brick manufacturing is divided into three principal phases, *i. e.*, mixing, moulding, and burning. Details in connection with methods vary to some extent but in principle they are the same. The quality of the finished product depends to a considerable extent upon the skillful handling of the processes of manufacture. The characteristics of brick are dependent not only upon the materials used but also upon the method of manufacture employed.

Mixing.—The basic materials are mixed in power-driven machines in large plants and in horse-operated mixers in small plants. The consistency of the mix and the materials used depend upon the method of moulding to be employed and the surface texture desired. The terms soft-mud and stiff-mud are accurately descriptive of the consistency of the mix. When a rough torn surface is desired a quantity of aggregate is added to the stiff-mud mix to be converted into wire-cut brick.

Moulding.—By the Soft-mud or Slop-process soft plastic clay is pressed into moulds. Practically all hand-made brick are manufactured by this process, but it s not so largely used for the manufacture of machine-made brick. If the moulds are dipped in water just before being filled with clay the brick are known as "water-struck." If sand is placed in the moulds to facilitate their removal the brick are known as "sand-struck." Water-struck brick have comparatively smooth surfaces, slightly rounded edges and corners and are usually more or less irregular in shape and color. They are of pleasing appearance and were at one time manufactured in considerable quantities in New England, but are now only made to a comparatively limited extent. Sand-struck brick are similar to the water-struck brick except that they have a coarser surface texture.

Dry-pressed brick are machine-moulded by heavy pressure upon reduced and finely granulated clays in a nearly dry condition. They are regular and uniform in shape, have sharp, true edges and smooth surfaces. Hydraulic-pressed brick are made by this process.

In the manufacture of stiff-mud brick the clay or shale, mixed to the consistency of a stiff mud, is forced through a die. A mud bar is thus formed having the cross-section of the brick, and this bar is automatically cut to the required size. These brick are known as "End-cuts" or "Side-cuts" according to whether the cut surface is on the ends or the sides of the brick. They may be distinguished from the soft-mud and dry-pressed brick by the rough texture of the cut surface. Stiff-mud brick are sometimes referred to as "Wire-cut" brick.

Re-pressed brick are usually a stiff-mud brick that after being cut has been pressed in a mould or press box and thereby made more regular in shape. Soft-mud brick, after being partially dried, are also sometimes re-pressed. The re-pressing of soft-mud brick increases the regularity in form of the brick and sometimes its strength, but stiff-mud brick are improved rather in form than in physical structure.

After moulding and before burning brick are known as "green" and are allowed to dry until sufficiently hard to be stacked in the kilns. Dry-pressed brick can be placed in the kiln immediately after moulding.

Texture of Surface.—The surface of texture brick varies from the smooth surface of the soft-mud and dry-pressed brick to the rough texture of the wire-cut surfaces of the stiff-mud brick. A brick having an artificially roughened surface with ridges and valleys extending in a vertical direction when the brick is laid in the wall is said to have a rough vertical texture and when extending horizontally when the brick is laid in the wall a rough horizontal texture.

Glazed brick are made of a fire clay base containing feldspar, flint and whiting. The brick are fired at a high temperature until the surface fuses to a transparent glaze. Enameled brick are made by coating the exposed faces of the brick with an opaque enamel applied directly to the face of the brick or a transparent enamel may be applied over a white or colored "slip," the slip coming between the enamel and the face of the brick. After enameling the brick are refired at a temperature sufficient to fuse the enamel.

Burning.—After being stacked in the kilns the brick are subjected to a temperature of from 1,500 to 2,200 degrees Fahrenheit for from five to ten days, depending upon the nature of the clay or the required product and are converted into a vitrified or semi-vitrified mass. The degree to which brick are burned effect the strength, density, color, shape and size of the finished product. The brick exposed to the highest temperature in the kiln are usually denser in structure, darker in color and smaller in size than the others.

According to the degree of burning, brick were until recently roughly divided into three classes, as follows:

1. *Arch or Clinker Brick.*—These are the brick exposed to the greatest heat in the process of burning. They are overburned and are frequently warped, partially vitrified and brittle and are better adapted for hearths, terrace and walk paving and for face work, than for construction work. Improved methods of burning have, however, very largely reduced the percentage of both over and under burned brick in the kiln.

2. *Body, Cherry, or Hard Brick.*—These brick are neither over nor under burned and for general construction work they constitute the best brick in the kiln. It is the object of the manufacturer to produce as large a percentage of this class of brick as possible and in some modern kilns the percentage is as high as ninety.

3. *Salmon, Pale or Soft Brick.*—These are trade terms for under burned brick. But, as before stated, light color does not always signify softness. Brick so referred to in the trade do not possess sufficient strength for use in piers or where heavy loads are to be carried, nor sufficient durability to warrant their use for exterior face work, but they are sufficiently durable and strong for use in connec-

tion with hard and medium brick for the filling and backing of walls which are not called upon to carry heavy loads and when not exposed to the weather.

The personal equation enters into the grading of brick under the above classification and in an attempt to eliminate this the American Society for Testing Materials in 1919 adopted the report of the Committee C-3 on the classification of brick as follows:

"According to the results of the physical tests, the bricks shall be classified as vitrified, hard, medium and soft bricks on the basis of the following requirements."

Name of Grade	Absorption Limits, per cent (increase in weight).		Compressive Strength, on edge, lbs. per sq. in.		Modulus of Rupture, lbs. per sq. in.	
	Mean of 5 Tests	Individual Maximum	Mean of 5 Tests	Individual Minimum	Mean of 5 Tests	Individual Minimum
Vitrified Brick.....	5 or less	6.0	5000 or over	4000	1200 or over	800
Hard Brick.....	5 to 12	15.0	3500 or over	2500	600 or over	400
Medium Brick.....	12 to 20	24.0	2200 or over	1500	450 or over	300
Soft Brick.....	20 or over	No limit	1000 or over	800	300 or over	200

"(*b*) The standing of any set of bricks shall be determined by that one of the three requirements in which it is the lowest."

Color.—Brick may be obtained in the wide range of colors from light gray or cream through the reds, yellows and buffs to practically black. White brick can be obtained only by the use of surface enamels. Colors are obtained by the use of various clays, shale or marl, by the addition of such materials as iron oxide, lime and magnesia and sometimes by the addition of mineral coloring matter. If the brick have been subjected to the reducing action of fire, thereby bringing out the iron and producing darker colors on the face and ends, they are known as "fire flashed," and if of practically uniform color as "clear." Mottled or Pompeian brick are produced either by coloring matter in the clay or by mixing clays of different chemical compositions.

Size of Brick.—While in some European countries there are legalized standard sizes for brick, there are no such standards in this country. The result is that the size of brick varies slightly with the maker and the locality. During comparatively recent years various associations have adopted or recommended standard sizes. They have not, however, until recently adopted the same size as standard. And even now all manufacturers do not conform to the standards adopted by their associations.

The American Face Brick Association in 1918, and the Common Brick Manufacturers in 1920 adopted a standard size of 2¼" x 3¾" x 8" for both face and common brick.

The American Society for Testing Materials in 1919 adopted a standard size of 2¼" x 3⅞" x 8" for building brick, but have recently recommended the adoption of the 2¼" x 3¾" x 8" size.

The average size of the officially standardized brick is, therefore, 2¼" x 3¾" x 8". All manufacturers should now be urgent to produce brick of the standard size.

In referring to standard size for brick it must be understood that these standard sizes are intended to represent close approximations of the average size of the well burned or hard brick. They are not intended to represent absolute fixed dimensions in which no variation is allowed. The shrinkage of brick in burning depends on the raw materials used, the method of manufacture and the degree of burning and it is industrially impractical so to regulate all of these conditions that every brick in the kiln will be of exactly the same size. The harder burned brick will usually average from ⅛" to $\frac{3}{16}$" smaller than the lighter or under burned brick.

Physical Properties.—Theoretically a brick of the highest quality should be regular and true in shape, free from kiln marks, lumps of lime, pebbles, air bubbles and fissures. It should be well burned throughout, of firm compact texture and fairly even in color. It should give a clear ringing sound when struck a sharp blow with a hammer or with another brick. For practical building purposes it is seldom necessary to insist upon a brick possessing all of these qualifications; a fairly regular well burned brick will generally meet even the most exacting requirements. The various standards of quality depend upon the kind of brick and the method of manufacture employed. For example, a soft-mud brick, classed as regular and true in shape, would not be considered and accepted as such if it were either a dry-pressed or a repressed brick.

The crushing strength of brick varies from 1,000 to as high as 10,000 pounds per square inch. These values are of service in comparing different makes of brick of the same class. Brick masonry is composed of a large amount of mortar, in fact, about one-seventh of the wall, and the strength of the wall is as dependent upon the strength of the mortar and the care with which the brick are layed as upon the strength of the brick. Hence, unless portland cement mortar is used little additional strength is given to the wall by the use of a brick with exceptionally high crushing strength.

A brick of good quality resists the action of fire, acid, and atmospheric conditions, but the life of brick masonry is dependent not only upon the quality of the brick but also upon the mortar and the quality of the workmanship.

As a result of tests on brick piers conducted by the Building Department of Ontario, Canada, the following conclusions were reached.

1. "Absorption entered into the strength of the brick in compression. Bricks having an absorption of 12 per

cent and under were on an average of 38 per cent stronger in compression and about 85 per cent stronger in bonding than the average brick absorbing more than 12 per cent moisture."

2. "The strength of the strongest brick pier load in lime mortar (1.3) was 55 per cent of the strength of the individual brick."

3. "The strength of the strongest brick laid in portland cement mortar (1.3 with one-fourth part hydrated lime, all by weight) was 78 per cent of the individual brick."

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The Story of Brick, by The American Face Brick Association, 110 South Dearborn Street, Chicago, Ill.
Brick, How to Build and Estimate and Specifications and General Schedule for a Solid Brick House, by The Common Brick Manufacturers Association of America, 111 West Washington Street, Chicago, Ill.
The Materials of Construction, by J. B. Johnson.

Limestone.

Weathering.—The Structural Service Committee had occasion recently to ask the Bureau of Standards for information on limestone. The Bureau, in complying with the request, stated that it was conducting an investigation to determine the weathering qualities of various building-stones, particularly the action of frost upon them, and asked for reports on existing buildings, giving locations, kinds of stones used, and dates of erection.

The results of the Bureau's investigations will be of great value to the profession. Architects are requested to furnish the Structural Service Committee with any reports or data they may have on the weathering of building stones, especially in connection with specific buildings.

Current Reviews.

Face Brick.—"The Story of Brick," a brochure recently published by The American Face Brick Association, 110 South Dearborn Street, Chicago, Illinois, is historical and descriptive rather than technical. The arguments are presented clearly, attractively, and effectively. From the standpoint of the architect's interest the "Story of Brick" would have had a stronger appeal if more consideration had been given to bonds, patterns, joints, and mortars. These subjects are not developed beyond the point to which they are carried in the handbook of commerce.

The illustrations are exceptionally well selected and reproduced and the subjects admirably portray the character of good brick work. It is unfortunate, however, that in a publication, excellent in so many respects, more restraint was not exercised in some of the claims made for the material. For example, it is stated that for both structural and artistic requirements no other building material can equal brick; that it easily lends itself to the dignity and massive character of the most elaborate and pretentious structures; and that no matter what you intend to build it pays to use face brick. Such claims do not lead to an appropriate use of the material, and are likely to react upon the industry.

There is, of course, a wide difference in the cost of various face brick, including selected commons, and also in laying, depending on the bond, joint, and mortar. While it is true, as stated, that brick may be laid with joints as thick as an inch, attention is not directed to the difficulty of laying brick with such wide joints or the greater cost of the work, and the inexperienced reader might easily be led to expect brickwork of a character far beyond the reach of his pocketbook.

Common Brick Specifications.—The Common Brick Manufacturers Association of America, Scofield Building, Cleveland, Ohio, have published "Specifications and General Schedule for Solid Brick Houses." These specifications, it is stated, have been prepared to assist the prospective home builder, when an architect is not available, and the work is to be done through the employment of a small general contractor. The specifications, schedules and instructions are not only of value to the owner without an architect, but to architects as well, and especially in connection with the preparation of specifications for brick work for small or moderate priced domestic work.

The publication is a sixteen page standard size booklet and is notably free from claims and selling arguments. The specification provision that the brick shall bear the trade mark of the Common Brick Manufacturers Association of America and the statement that this trade mark denotes a product of the highest quality raises some very pertinent questions. To what extent does the association stand back of the quality of the trade marked products of its individual members and in what way is it able to guarantee that brick bearing the trade mark of the association *are* of the highest quality? In this connection the comment should be made that few brick now carry the trade mark. In the published statements of the association no information appears on these points.

Common Brick; Estimating and Construction.—The Common Brick Manufacturers Association have published also a second edition of their booklet entitled, "Brick—How to Build and Estimate." This forty-eight page standard size illustrated booklet contains valuable data on the subject of brickwork in connection with small and moderate priced houses. Like the booklet on Specifications, it is not intended for architects, but as an aid to the isolated home builders.

The first section of the booklet is devoted largely to selling the brick idea. The economy of the material and its resistance to fire are especially stressed. The accuracy of the claims that solid brick walls are always dry and that brick is proof against dampness coming from outside and condensation from inside is questionable, and the wisdom of damp-proofing or furring exterior brick walls is not discussed. The claim made that the thermal conductivity of a brick wall is lower than a frame wall is, in all probability, based on a furred brick wall though it is not so stated.

The handbooks usually place the thermal conductivity of an unfurred brick wall and a well constructed frame wall as approximately the same.

The second section discusses solid brick construction, uses of various mortars, mixing of mortars, brick laying, construction of chases, sills, fireplaces, walks, and so on.

The third and last section is devoted to estimating brickwork. This phase of the subject is well presented. It does not attempt to give prices nor to make comparisons with other materials or methods, but confines itself entirely to instructions, data and tables giving the quantities of the various materials and labor required. The tables include not only the number of brick in walls of different thicknesses, but also the number of brick a man will lay per day in each of the several bonds and with different kinds of mortars and joints.

Reinforced Concrete.—Handbook "Useful Data." Published by the Corrugated Bar Co. Review by Elwyn E. Seelye, Consulting Engineer, New York City.

"Useful Data," published by the Corrugated Bar Company, is well named. Its contents may be summarized as follows: Plates for simplifying ordinary concrete computations. Formulæ for moments, shears and deflections for beams variously loaded. Data on live and dead loading. Standardized sections for slab beams, columns and footings. Data for estimating steel weights and various miscellany.

This book cannot be safely used by a designer who is not thoroughly familiar with its limitations, but in the hands of a qualified engineer it will eliminate much tedious work. It is somewhat colored by the fact that it is issued by a manufacturer. Taken as a whole it would be of distinct value in any draughting room, where reinforced concrete is designed.

Paving Brick, Specifications for Brick Paving.—The American Society for Municipal Improvements, Charles C. Brown, Secretary, 404 Lincoln Avenue, Valparaiso, Indiana, has published its standard Specification for Brick Paving as adopted on October 3, 1918. Part one deals with the brick, its character, size (3½" x 4" x 8½"), inspection, delivery, and tests. Part two deals with pavement construction, the foundation, sand cushion, laying the brick, expansion joints, rolling, portland cement grout filler, coal tar paving pitch filler, asphalt filler, mastic filler and maintenance.

News Items.

National Federation of Construction Industries.—At the first annual meeting of the National Federation of Construction Industries, held March 24–25, in Chicago, Illinois, the Institute was represented by Mr. Emery Stanford Hall. Mr. Hall addressed the meeting on the subject of "Standardization and the American Institute of Architects." He reports that a broad program was discussed and that throughout there was evidence of an appreciation of the industry's obligation to the public.

Fireproofing: Protection of Structural and Reinforcing Steel. Thermal Conductivity of Burned Clay, Concrete, Gypsum, Lime Mortar and "Radix." Abstract of Technologic Paper of the Bureau of Standards No. 130, by Walter A. Hull. A comparison of the heat-insulating properties of some of the materials used in fire-resistive construction. This publication dated November 12, 1919, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C.

The following materials were tested in order to determine their heat-insulating properties when used as a protective covering for steel: Burned clays of various densities; 1, 2, 4, and 1, 3, 6 concretes with gravel, limestone, trap rock, clinkers, soft coal cinders, and blast furnace slag used as aggregates; gypsum of various densities and with various fillers; one specimen of a 1.4 lime mortar, and one specimen of a patented material called "Radix." The materials to be tested were made up in the form of solid cylinders 8" in diameter by 16" long, and were heated in a gas furnace for three hours and thirty minutes at an average temperature of 700 degrees C. (1,292 degrees F.).

From the results of these tests the following conclusions are indicated:

(*a*) That in burned clays the higher the porosity the lower the thermal conductivity.

(*b*) That limestone-concrete heats up more slowly than gravel concrete but that at a depth of 1½" steel reinforcement would fare about as well in one concrete as another, provided there was no spalling.

(*c*) That for a thickness of about 1½" there is but little difference between the thermal conductivity of burned clay and concrete.

(*d*) That the action of lime mortar is similar to that of clay and concrete.

(*e*) That gypsum is a better insulator than either clay or concrete, provided it does not fall off.

(*f*) That heavy dense gypsum mortar is a better insulator than the more porous mixtures. (A gypsum mortar composed of sixty parts gypsum to forty parts water is a better non-conductor of heat than a mortar composed of forty parts gypsum to sixty parts water).

(*g*) That "Radix" is as good a non-conductor of heat as gypsum. (One specimen only tested.)

Fire Prevention.—The National Fire Prevention Association has issued a leaflet in which is projected the plan for "The Fire Chief's Cabinet," a voluntary group of men that can be called together periodically to consult with the Chief of the Fire Department for discussion of fire preventive measures. The moment for such a cabinet is most opportune, for our high fire loss is even more serious today than ever in the past. We cannot even keep pace with the demand for new buildings; we must prevent the destruction of buildings by fire.

Announcement.—Beginning with this issue the Structural Service Department will carry discussions on the following subjects: Brick work; Architectual Terra Cotta; Masonry partitions; Furring and Fire proofing; Building stones; Plaster coatings; Waterproofing and Dampproofing; Painting and Finishing; Glass and Glazing.

JOURNAL OF THE

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Shadows and Straws

Announcing the Press of the American Institute of Architects, Inc.

WITH this issue of the JOURNAL, publication is transferred from the old Committee on Publications to the Press of the American Institute of Architects, Inc., a corporation formed also for publishing books, pamphlets, reprints, or other literature relating to the art and science of architecture. The Handbook of Professional Practice, by the late Frank Miles Day, is now in process and the announcement of other publications will follow.

The Institute's ownership of the JOURNAL property is represented in the new corporation by the stock of the Press, all of which remains in the treasury of the Institute. The new working capital is represented by a bond issue, of which $50,000 has been authorized and about $34,000 has been taken by over 350 members of the Institute. The balance will be sold as rapidly as possible.

The Board of Directors of the Press is elected annually by the Board of Directors of the Institute. The Board elected for the current year is as follows:

President, Thomas R. Kimball, Omaha, Neb.
Vice-President, Ben. J. Lubschez, New York City.
Secretary, William Stanley Parker, Boston, Mass.
Treasurer, D. Everett Waid, New York City.
Directors: Frank C. Baldwin, Fredericksburg, Va.; Herbert B. Briggs, Cleveland, Ohio; William Emerson, Boston, Mass.; M. B. Medary, Jr., Philadelphia; Alexander Welch, New York City.

The Board of Directors of the Press wish to make the following statement:

The JOURNAL is intended to be the Institute forum for the free expression of ideas and opinions concerning every phase of architecture in all its fields. The discussion at the recent Convention in Washington of such subjects as housing, town planning, draftsmen's unions, trades' unions, jurisdictional disputes, small house bureaus, registration, state societies and the suggested building trades parliament indicates the variety of problems that are thrusting themselves upon the profession. They must be met intelligently, acted upon wisely. This can only be done by constant free discussion.

It is the hope of the Directors that the JOURNAL will be made the vehicle for this discussion and used in a sense as a continuing convention in which all members of the Institute may speak as freely as on the floor of the annual convention. It assumes no responsibility for the opinions expressed in its columns. It believes, per contra, that the members of the Institute should assume the duty of so expressing themselves, and the invitation so to do is extended to the profession generally. Space will be afforded to the greatest extent possible. The members of the Institute should be zealous in guarding the independence of their journal and fearless in using its columns, especially for speaking directly to their fellow members on questions that engage their mutual interest. The JOURNAL serves no interest but that of the common welfare and seeks only to find and present the truth.

THE ATTENTION of our readers is particularly directed to the Structual Service Department of this issue where are recorded the results of the study by the Structural Service Committee of the merits of "Vitri-flux." We believe that the profession will appreciate this kind of service and will welcome this evidence of the fast increasing usefulness of the Committee and of this department of the JOURNAL. The report of the Committee which called for a very considerable expansion of its activities was referred to the Board of Directors by the Convention.

The new Structural Classification Index as adopted by the Convention is also published in this issue. It is, of course, subject to continual expansion and improvement as detailed experience may suggest, but it does afford, for the first time, a standard index possessing great possibilities of usefulness as the Committee soon proposes to show.

The Crisis in Architecture

By ARTHUR J. PENTY

III. THE NATURE OF ARCHITECTURE

THERE is perhaps no single idea the acceptance of which would give such stability to architectural policy as the frank recognition of the fact that architecture and industrialism are finally incompatible and that all attempts to graft one on the other must fail in the end. If the profession could be persuaded to face that undoubted fact the contradictions that are inherent in existing policy would rapidly disappear. For we should then be under no temptation to be constantly changing our policy and style of work in order to win popular approval, but should be able to work together for definite architectural ends. And the unity that would thereby be brought into our ranks would, by giving the public confidence in us, react to bring us that success for which at present we search in vain. Immediately such an act of intellectual renunciation would, by enabling us to see the problem confronting us in its proper perspective, be followed by a return to fundamentals and we should be content to give to our newly discovered principles such limited application as circumstances permitted, sure in the conviction that a social and economic system that exhibited tendencies antipathetic to the needs of architecture was itself suffering from some internal malady that must end by destroying it. Of all the moribund ideals, that of modern architects of making architecture the expression of the age—that is, of industrialism—is surely the most moribund of all. For it is a contradiction in terms. It is to make architecture the expression of something that we all really know to be antipathetic to architecture, however much we try to conceal the unpleasant truth from ourselves. Architects who believe that architecture should express the modern age can have no status as reformers. They ought to be satisfied with the architecture of our streets as they exist. For the confusion, in which it is involved, certainly expresses the intellectual economic and political confusion of the modern world. In these circumstances if we seek an architecture that is orderly we inevitably are searching for something that does not express the modern world, but is prophetic—prophetic of a coming social order. Truth to tell, Architecture was never at any time the expression of the age in which it was practised, except in the sense that it expressed its aspirations. The civilization of Greece never attained to the orderliness and calm of Greek architecture; nor did Roman Society approximate in order to its architecture. Gothic architecture expressed the Mediaeval promise that was never fulfilled.

Of course it is easy to understand why architects to-day are so much concerned to bring architecture into relation with the age. It is because the circles of influence antipathetic to architecture are closing in upon us, threatening us with extinction. We have unfortunately little option but to yield to them in practice. But we are under no necessity of believing in them, of persuading ourselves that evil is good because it happens to be successful. If we cannot realise our ideals, at any rate no one demands that we should idealize the real. And if architecture is lost in the visible world we ought all the more jealously to guard its traditions of thought from corruption; for such traditions are the seed from which the architecture of the future must arise.

If architects are ever again to become a driving force they must finally be dogmatists. They must believe that certain things are right and certain things are wrong. Nothing short of this can create in us that faith that will remove mountains. All the great movements that have conquered the world have been possessed of such a faith. Their followers believed certain things were eternally true, and stood by them in times of persecution and neglect. The faith that they exhibited under such trying circumstances was contagious and ended by carrying all before it. So it must be with us. If we want architecture to succeed we must believe that architecture has a substance and content independent of the circumstances of its practice. And we must not be frightened by words. If people say that what we do is exotic, or a make-believe, or an anachronism or anything of that kind, we must ask them to define precisely what they mean by such words and I think we shall generally find they don't mean anything. Above all we must meet every crisis by broadening the basis of our faith rather than by narrowing it, and make of every defeat the means whereby a greater victory may be achieved. The thing is not impossible. It has been done over and over again in the world. Anyone who understands the meaning of the Christian paradox, "He that would save his soul must lose it," understands the paradox that lies behind all successful movements.

I can understand the hesitation of architects to follow such advice. One of the most successful men in the profession in England recently said to me when discussing the problem of the architect, "that

the difficulty of formulating any policy was that anything that was done invariably produced some result the opposite to that intended." Now I imagine most architects will have had that experience, and I ask myself why this undoubtedly is the case. The answer is I think because it is a tradition of the profession never to challenge prejudice, but to attempt to circumvent it by means of tact. There is much to be said for this policy. Endless difficulties can be got over merely by the exercise of tact. But it is important for us to recognize that there is a definite limit to what can be achieved by such means. Tact can remove the minor personal difficulties but it cannot remove the major impersonal ones. There is only one way of removing these and that is to challenge them. If we fought everything in modern society that was detrimental to the interests of architecture as resolutely as the Labor Movement fights everything detrimental to the interests of Labor a time would come when we should be listened to. But of course before that is possible we must be very clear in our minds not only as to what we mean by architecture but as to the nature of the popular psychology. Moreover we must do our best to help to bring into existence a culture that will form a bond of mutual sympathy and understanding between ourselves and the public, for as I have already said, it is finally the absence of any such common culture today that is the secret of our troubles.

Meanwhile efforts should be made to arouse the building interest among the public, and the first step towards this end will be taken when we throw overboard the Rennaissance academic tradition, since, so long as it remains as the architecture ideal, it must remain impossible to popularize architecture; for an architecture to be popular must be democratic. Of this we have conclusive evidence, for it was the academic architects of the eighteenth century who destroyed popular interest in the art. And so we may be assured that if this type of architecture actually succeeded in destroying a popular interest that was in existence it is vain to suppose it can be used as a weapon to revive an interest that is non-existent. "Pure architecture," as it is called, bores the average man. It is cold, distant and uninviting. It is a kind of aesthetic intellectual abstraction with no flesh and blood about it, and so the ordinary man who is all flesh and blood and has no particular interest in intellectual abstractions has no interest in it. And I believe the ordinary man is right; for after all this academic architecture is at the best only second-rate work, and has only an educated appeal. But really great architecture like all great art has a popular as well as an educated appeal; because all great architecture differs from vernacular architecture in degree rather than in kind. It recognizes all architecture as being of one and the same substance, and as such interposes no barrier between the architect and his public.

Now the difference between the Renassiance or academic and the Medieval and vernacular architecture may be defined as follows. Academic architecture begins with considerations of abstract form: Mediaeval architecture begins with consideration of materials. The former seeks to eliminate all local color and texture of material in order to attain to pure form; the latter accepts and delights in the differences of material and bases its treatment upon a frank acceptance of their differences. It is for this reason that Mediaeval architecture varies in its treatment from material to material and from locality to locality, and the higher forms of it that exist side by side with such vernacular work is really an expansion or projection of the primitive ideas of craftsmanship, differing in degree rather than in kind from ordinary building. And as such it is a higher form of architecture than the academic one; for whereas academic architecture treats only of forms and largely ignores color, Mediaeval architecture not only dealt with the problem of color, but employed a different treatment for each material it used. To take a parallel, academic architecture may be likened to the music produced by a piano whereas, Mediaeval architecture is the music of an orchestra and the degree of skill required by the architect to produce Mediaeval architecture differs from that required to produce academic architecture as musical composition for a piano differs from composition for an orchestra.

Mediaeval architecture is at the same time more difficult and more easy to produce than academic architecture. It is more difficult because in its higher forms the architect needs a higher degree of skill to combine successfully so many different materials and colors; while it is easier to the extent that in its lower forms the craftsman in times of settled traditions can attain to success merely by following his instincts. Compared with architecture of this order academic architecture appears to me as an abnormal art due to the overdevelopment of the logical faculty and is no more entitled to rank as the highest form of architecture than the intellectual, whose reason is his master rather than his servant, ranks as the highest type of mind. Though we often may admire the achievements of such men we are generally conscious that they miss reality, and are essentially unbalanced; for one side of their nature has been overdeveloped at the expense of the other sides. Even so is it with academic architecture; the abstract side has been developed at the expense of the emotional and craft side.

Now I feel it is vain to suppose that it is possible to

revive architecture on a basis of such abnormality and on the principle that it is no use nurturing a tree at the head when it is dying at the roots; we must return to the craft basis of architecture if any popular interest is to be aroused. And in this connection I would observe that to have a popular appeal architecture must be pleasing in color. I have noticed that where circumstances have enabled me to build with materials of a pleasing color and texture my work has been popular; but where, as in other cases, I have had no option but to use inferior material, it has aroused no interest whatsoever, though the design has been of equal merit; while again, on the contrary, I have noticed that inferior design executed in good material and color has created popular interest. So important do I think this question of material to the popularization of architecture that I feel collective action should be taken to insure that good materials should be on the markets. In my experience the greatest difficulty is to get good bricks and tiles. All my life I have felt their fundamental importance, yet only upon half a dozen occasions have I been able to build in decent material; and circumstances have compelled me to use material I knew to be ugly. If it has been my experience it must have been the experience of most architects. Cost scarcely enters into the question; I have found the difference between using the best hand made bricks and machine ones for facings was only one per cent of the total cost in ordinary domestic work.

In the use of beautiful material we have then a link between ourselves and the public, as in its aesthetic use we have the basis of architecture. The heresy of Professor Lethaby is, I am persuaded, due to the fact that he placed the centre of gravity of his philosophy in construction rather than materials; for construction leads inevitably to engineering, as the right use of materials leads to architecture. And here again we see that the Lethabean heresy is on all fours with the academic heresy. As the academic heresy is due to exalting logical form which should be the servant of architecture into its master, so the Lethabean heresy is due to exalting construction which should be the servant of architecture, not its master. In each case it is exalting something that should be a means towards an end into an end in itself, and as such is a part of modernism which has been well defined as a "synthesis of all the heresies." If we make material rather than construction the basis of our architecturel philosophy we recover our liberty because we may exercise choice in the materials we use. If we want to use ferro-concrete because it subserves our ends then we shall use it, but if we don't want to use it we shall not allow ourselves to be bullied into using it because, as they say, "it has to come," for we shall recognize in all such apologetics a game of bluff. Why should ferro-concrete have to come, supposing we don't want it? Well, there is only one answer that I can find, and that is we are not clear in our own minds as to what we do want and so can be stampeded into this or that. All evil things have been imposed upon the world in this way. The argument has always been "it has to come." And nobody asks why?

The only right attitude towards new discoveries and inventions is to consider them on their own merits, seeking always to determine their relationship to architecture as a whole. Heresy let us remember is not necessarily something false but the running amuck on one aspect of truth to the damage or denial of others. It is a loss of "the sense of the large proportions of things." We must ever be on our guard against supposing that the new necessarily supplants what has gone before. Experience teaches us that this is rarely the case, and that when seen in its true perspective, the new, if it survives, generally turns out to be supplementary to the old rather than destructive of it. Most modern inventions remedy one evil to create another.

If the use of beautiful material be accepted as the basis of a revived architecture it follows that each material should be given its own appropriate treatment. It is impossible to say in words exactly what this means, but every true architect and craftsman knows that every material possesses some quality peculiar to itself, and that the buildings that most impress us are those which give emphasis to the intrinsic qualities of the materials used. And this is just as true of the early Renaissance buildings we admire as of Gothic or Byzantine. What is really impressive about the best of Wren's work is the genius he had for expressing the qualities of Portland stone. While again, it is the entire absence of any close relationship between the forms of design and the material used that makes the later academic Renaissance so extremely dull and uninteresting, as is natural when we remember it was the aim of the architects of this period to attain to a "pure architecture" by the elimination of all local color and texture in materials. The principle of giving each material its own peculiar treatment should be followed not only with respect to the structural parts of the design but also with respect to the treatment of the decorative adjuncts. Thus, in carving any natural object it would be the aim of the craftsman to suggest not only the general form of the thing intended but the kind of material in which it was carved. In other words the treatment would be conventionalized. A lion would be emphatically a stone lion, a wooden lion, a bronze lion or a painted

lion as the case might be; it would never be a merely naturalistic lion for in each case there would be no mistaking the material of which it was made. The form in each case would be developed along the lines that the technical production of each material most readily suggested. That is the secret of convention.

This delight in material is an effective safeguard against the temptation towards over-elaboration. In marble work the architect does not seek to impose an elaboration of detail on richly colored marbles but leaves them as they are perfectly plain in order that their richness may tell to the greatest advantage, while he uses white veinless marble where he wants mouldings and carving. In the same way if we could always use beautiful material we should come to recognise instinctively the value of plain surfaces in design. We must learn to think primarily in material rather than primarily in form. The form should be subordinated to the material, not the material to the form. Though this was an unwritten law in the days of the Arts and Crafts Movement it is not necessary to be a craftsman in order to give application to it except perhaps when we come to decorative work. It appears to me the craftsmen were guilty of exaggeration when they affirmed that only by the actual handling of material could beautiful work be produced. The real truth is that the designer who does not handle material must keep more closely to precedent than the craftsman, for new ideas in design must have their basis in actual experiment with material. It is also much easier for a craftsman working with material than for the architect working on paper to produce good results since the architect to be successful needs to be possessed of a higher power of vizualization to produce work of equal merit. It is not true to say that no good architecture can be produced so long as the architect is an office man; but it is true to say that under such circumstances it is far more difficult to succeed in producing it.

As we become clear as to the nature of our principles the architecture of the future will gradually be revealed to us. If we frankly accepted differences of material as the basis of design it would follow that the treatment we gave to each building would be conditioned by the materials natural to a particular locality, at any rate so far as the exterior treatment was concerned. Where possible we should base our treatment upon local style; for local style is the treatment that craftsmen in the past gradually evolved by actual contact with the materials of their localities. But while we should accept local style as the basis of our treatment because of the feeling of the soil it gives, we need not be limited by it; after we had mastered it we should seek to enrich the local tradition with such ideas borrowed from the architecture of other places and countries as could be readily assimilated. And this is not a difficult matter once the habit is acquired of building up our treatment from fundamentals. Indeed after a time it may become just as easy to combine ideas from different periods and countries as to follow in the grooves of any particular style. For instance it is possible to combine ideas derived from the vernacular English brickwork with ideas of brickwork derived from the Netherlands and from Italy, though generally speaking it is only the simpler or germ ideas that will so combine. The more highly developed forms of different styles do not readily combine. But the primitive forms often will, and when so combined they become a point of departure for the development of a new tradition. Of course in such an enterprise taste and discrimination are needed and it is better for an architect to keep within the bounds of existing styles than to attempt such a task if he is not quite sure of himself. But if we submit our tastes to a rigid discipline and study the evolution of styles, after a time such liberty becomes instinctive for all spontaneity in the arts is finally the flower of discipline.

Looking at architecture from the point of view of materials the usual historical divisions of styles are seen to be largely arbitrary though not entirely so; for such divisions lead us to associate many things that are only accidentally associated and to ignore the close relationship of things that belong to the same order of ideas but are found in different historical periods. Thus there is a closer affinity between Gothic brickwork and Renaissance brickwork than between Gothic stonework and brickwork; or the things that Gothic and Renaissance brickwork have in common are more important than their differences, while the things Gothic brickwork and stonework have in common are secondary. These things are obscured for us by the fact that architectural literature deals almost entirely with churches and palaces in stone. Other types of buildings in other materials are only dealt with in a very casual way. This leads to a very distorted idea of architecture which has been followed by systems of architectural education that study the subject from the wrong end. Instead of the student being taught all the simple things, of becoming familiar with all the units of which architecture is built up, he is set to study the elaborate buildings of the styles, with the result that as his knowledge is not organic with his mind, he cannot think freely in architecture in the broader sense but only within the limits of a particular style; and if fashion should change, he throws over one style and adopts another much as he would change a suit of clothes. In consequence there is little growth of architectural comprehension. We adopt a style,

run it for a few years and then it is exhausted for us. And so it will be until we understand that the study of architecture like every other subject should begin at the bottom with a study of simple buildings and simple things instead of with the elaborate ones. To promote education on such lines our literature will need to be rewritten. We ought to have books on brick architecture, stone architecture, on timber buildings, on carpentry and all the crafts. And such books should in the first place confine themselves to the simplest examples of each period and craft. They should begin by an examination of the units of each style giving details of all the ordinary things that repeat themselves, working on the principle that the most important things to know about every style are not the exceptional things but the things that are common to all buildings in the style. Then the principles of setting out should be explained. How valuable would be books that collected together types of window frames, door jambs, sections through eaves, or roof plans—in fact, of all the units of which architecture is built up. If these were carefully arranged in historical sequence showing how one type was gradually replaced by another every architect would be in possession of valuable data for whatever he was required to do. It is true, I think, to say that if one is sure of the units a building almost designs itself. The compilation of such data might in the first instance be undertaken by architectural societies. Every architect has got a private collection of such data. If it could be gathered together and arranged, material would then be available for building up a real theory of architecture, that would be practical at the same time. We should soon be emancipated from the styles. I can on this point speak with some experience. In the days of my pupilage I spent my time making elaborate drawings of buildings from which I learnt scarcely anything. Later I came to the conclusion that everything depended upon knowing the units of design. I gave up sketching and took to making notes and I found I learnt a hundred times as much from them with a tithe of the labor. I think I may say I first began to feel I understood something about architecture from that time. But when students have come to ask my advice as to how to study design my advice in recent years has never been followed because as they say the kind of study I have found by experience to be so beneficial would not get them through the R. I. B. A. examination. The American Institute is to be congratulated on having decided to abolish the examination system. It is a millstone round our necks. There might be something to be said for examinations if we knew exactly what we wanted to teach, but so long as architecture remains in its present experimental stage they do more harm than good, for they tend to strangle at the beginning any new development of thought. I am firmly convinced that the examination system is one of the things that keeps us out of the promised land. It robs the architect of intellectual independence, and independence is the breath of life in art. No wonder the tail wags the dog in these days.

The Housing Situation in Great Britain

By G. D. H. COLE.

THE houses in which men and women live and the way in which their towns, suburbs and villages are planned, exercise a profound influence over their lives and ways of thought and action. That is, of course, a platitude; but it is a platitude which is of very great importance in connection with any program of Reconstruction. We must go on repeating it, trite as it is, because, although it is recognized as a platitude, it is by no means taken as a basis for action.

The various housing and town-planning organizations in Great Britain were fully alive, when the time came to begin the work of Reconstruction, to the need for keeping those platitudes, which are also vital truths, constantly before the mind of the public. They reopened with great vigor their propaganda, which had been largely reduced during the earlier years of the war. They sought to insist, and to make the public and the Government realize, that in embarking upon the great house-building which must take place both to make up the war-time arrears and to improve the housing standards of the people, it was imperative that the new plans should be broadly and generously designed, and that the work should be conceived in accordance with a definite ideal of both planning and building. Their propaganda met with practically no theoretical opposition. Prominent men of all parties and interests gave their support. It was unanimously agreed in theory that we must re-house our people, not at haphazard, but in accordance with a clearly realized ideal. But when it came to actual schemes and building operations, nearly all the fine ideals gave way before the difficulties of the situation and the timid and unimaginative policy of the Government. The result is that for the most part we are still not building houses at all, and that where we are building, the houses are being erected on no definite

plan, in the wrong places, and on mean and unworthy designs.

The great difficulties were two—the first financial, and the second the result of the inadequacy of the present system of local government to deal with any great problem affecting town and country alike. The financial difficulty has been the more generally realized by the ordinary public; but the other is well understood, by those who have ideals of housing and planning, to be in reality no less serious. Even if there had been no financial problem of any magnitude, it would have crippled us for the achievement of any really satisfactory housing reform.

The essential financial obstacles are two-fold—the extraordinarily high cost of building and the extreme difficulty of raising money by loans, save at almost prohibitive rates of interest. The high cost of building is due partly to the abnormal prices of building materials largely controlled by close rings and combinations, and partly to the increase of all charges, including higher wages and greatly enhanced expectations of profit, as well as higher interest on capital required by the builder for the execution of the job. This means, of course, that every house built at present, and especially every working-class house, is built, in a double sense, at a loss. It is impossible to obtain, or to ask for a rent at all corresponding to the capital cost, and if prices come down, as they are expected to do in a few years' time, the actual capital value of the houses will then be very much less than their present cost of construction. The Government's measures for dealing with this situation are to agree to shoulder all but a small proportion of the prospective loss incurred by local authorities which embark on housing schemes, and to make certain quite half-hearted and ineffective endeavours to reduce costs.

The effect of this assumption by the State of most of the ultimate dead loss on new housing schemes is, unfortunately, directly responsible for a tendency to reduce the standard of the houses which are building. No one will grieve when the Ministry of Health and the Treasury insist on the elimination of all ornament that can be dispensed with; for such ornament never yet made an ugly house anything save uglier. But it is a far more serious matter when economy takes the form of insisting on actual reductions in the standard of comfort, light, air, and good building. This, however, is too often the result of the Government's desire to cut building costs, and therewith the State's own ultimate liability, down to a minimum. Moreover, the local authorities themselves, upon whom, in view of the complete cessation of "private enterprise," almost all the burden of building falls, are in part inclined, and in part impelled, to follow the same policy. They are inclined, where they consist largely of persons who think that any rabbit-hutch is good enough for a workman or ex-soldier to live in; and they are impelled, by the insistence of the Government, once more on financial grounds, that rents shall be fixed as near the economic level as possible. Thus the local authority is often in a dilemma. If it builds good houses, the Government will insist that it shall charge rents which most workers will not be able to pay; if it wants to keep its rents down to a reasonable level, it is compelled to build bad houses, at least until and unless some way of substantially reducing costs can be found.

The houses, then, that are built will be largely of inferior types. Moreover, there will not be nearly enough of them; for even now, sixteen months after the termination of hostilities, we are not building fast enough to make up leeway, much less to improve the standard of housing and relieve overcrowding, which becomes worse and worse. This, again, is mainly a financial question. The Government, despite the requests and demands of most of the bodies interested in housing, has refused to find the capital required on a national basis by means of a national housing loan or levy, and except in the case of the very small authorities, which can receive loans from the State, has thrown the burden of raising the money required on to the local authorities. The London County Council, which ought to be in a better position than any other authority to do this, has recently arranged for a loan of £7,000,000; but most of this has had to be taken up by the underwriters. Throughout the country, an attempt is at present being made to raise the money by means of Local Housing Bonds; but I can find few persons optimistic enough to believe that there will be anything like an adequate response. With the Bank Rate at 7 per cent, and countless speculators and promoters of all sorts in the market looking for capital at almost any price, all save the very largest local authorities are in an extremely bad position for raising money. This means that although everybody talks constantly about the need for speeding up the housing schemes, there are not a few who are, to say the least, half-hearted, and inclined to say that the slow progress made is really a blessing in disguise. I do not think the Government itself can be acquitted of adopting this double attitude—of saying much in public of the need for houses and trying to throw the blame of delay on Trade Unions or local authorities, and at the same time of congratulating itself in private that its liability is being limited by the failure to get on with the work.

So much for the financial difficulties, which are big enough. Behind them is the fundamentally even more serious, because more radical, difficulty

which arises out of the present structure of British local government. Housing and town-planning fall to be dealt with under a central supervision which is almost purely financial, by the various local authorities, County Councils, Town Councils, Urban District Councils. This means that each such authority is responsible for housing the people who live within its own area, although it may have actually to build the houses it requires largely in the area of a different authority. The effect of this system is disastrous. The Towns or Urban Districts, and above all the larger towns, are irresistibly impelled to re-house their populations merely by extending their urban fringe, and so, in the long run, aggravating the problem of urban congestion. The Counties, which are rural areas not for housing purposes, including the towns, have little money, and will certainly not take upon themselves the responsibility of developing the countryside for the urban populations to move out into. In short, where what is above all needed is a replanning of whole regions including both town and countryside, regional planning is, to all intents and purposes, excluded by the obsolete structure of British local government.

Almost everybody in Great Britain who cares for housing, for beauty, for the health of the people, for good industrial and economic conditions, for human welfare in the broadest sense, is agreed that a redistribution of population, and, of course, of industry also, between the huge urban aggregations on the one hand, and the small towns and the countryside on the other, is an indispensable and pressing reform. Industry cannot move out of the big centres unless two requirements are satisfied—unless adequate transport facilities are provided, and unless there is somewhere for the workers to live. Given these conditions, it is impossible to doubt that a decentralization of industry would result in a vast gain both in economic efficiency and in human welfare. Yet such a development is altogether obstructed by the present system of local government, which means that the tendency is towards a growing concentration of industry in a few centres, and that the clearance of one slum area merely creates another—and often a worse one—in its immediate neighborhood, while at the same time it causes the overgrown suburbs to extend, in an ever-broadening belt of ugliness, around the great cities.

Consequently, the opinion is ever gaining ground that there can be no real solution of the housing and planning problem until it is possible to plan, not merely suburbs, or the few hundred acres of a particular housing scheme, but whole regions, each including within its borders large and small towns and countryside. This means a fundamental change in the basis of British local government—the creation of large regions as areas of administration for housing and transport, and for the various public utility services, such as electricity, which are intimately bound up with town and regional planning. Such a reorganization cannot be accomplished merely by the systems of Joint Committees between the existing authorities which are sometimes recommended; for this would still leave each authority responsible for, and thinking of, its own population alone, and would raise vast financial difficulties. Nothing but the reorganization of local government on a regional basis will be of any substantial use.

Clearly, however, such a big reorganization will not come in a day or a year, particularly from a Parliament which has little or no time to attend to such popular needs. For some time yet, we shall muddle along with our housing problem, putting up bad or indifferent houses, usually in the wrong places and never in accordance with any definite plan. And then, some day we shall discover how we are wasting our hundreds of millions of pounds, and we shall set to work on the lines which, even today, almost everybody who cares at all, knows to be right. Then, and not till then, we shall begin to build the "Britain fit for heroes," which figures so prominently in the Prime Minister's speeches, but is so little to be seen in town or country today, or looked for in the new houses and suburbs which our local authorities are promising to build.

Arthur Mathews—Painter*

"IF YOU want knowledge, you must toil for it." Thus spake John Ruskin—and he knew. For thirty and more years he toiled patiently and continuously in research and study of painting, sculpture, and architecture in Italy. No contemporary writer has given us such an insight into the "Romano-Bizantina" and Renaissance periods of this land of the "Mother of Arts." His knowledge, scholarship, and profound study of the Bible enabled him to arouse in his fellow men a new interest in art, not as "an affair of mere taste for the luxury of connoisseurs, but indeed an affair of deep, widespreading human concern for society at large."

We must toil long and unceasingly for the little

*Arthur Mathews is a native Californian. In early life he studied architecture, later forsaking it for lithographic engraving and illustration and finally drifting into painting. He studied under Boulanger in the Jullien Academy at Paris and on his return to the United States became head instructor in the Mark Hopkins Institute of Art. When this was merged with the University of California, he became director of the art school of that institution. From this he resigned to devote himself to other work.—*Editor.*

MONTEREY CYPRESS—Painted by Arthur Mathews.
Metropolitan Museum, New York City. The gift of Mrs. Henrietta Zeile.

knowledge most of us can ever hope for. Thus one wonders, after having toiled somewhat in the field of architecture and conscious of the limitations of a modern architect, whether the world will ever again give birth to geniuses such as Giotto, who designed and built its monuments, and decorated them with sculpture and color, expressing the ideals and sentiments of the people and their environment.

If such gifted artists are to be denied us, then individual architects, painters, and sculptors must find something more in common and express themselves as moderns. With some notable exceptions, we erect public monuments and cover their walls with symbols in paint and sculpture that reflect nothing of our community life; they are borrowed from the past and are meaningless.

There is one panel of the Puvis de Chavannes murals in the Pantheon of Paris that will always remain in our memory—the painting of St. Genevieve watching over her beloved city—it is so simple and beautiful in color, so full of dignity and pathos, that one feels the inward prayer for the people in their hour of trial—a pictorial expression of one of the many struggles of the heart of France—an expression more powerful than mere letters or words. Such is one of the great purposes of mural painting. These paintings with their delicate and exquisite coloring in complete harmony with the soft, cool tone of the interior masonry, have a natural place upon the walls, and seem to be just as much a part of the temple, and just as expressive, as the Pantheon in its relation to the great city surrounding it.

Ruskin tells us "that you will need no further conviction of the first law of a noble building, that grandeur depends on proportion and design—not, except in a quite secondary degree, on magnitude. . . . But the glory of architecture is to be—whatever you wish it to be—lovely, or grand, or comfortable, on such terms as it can easily obtain . . . Grand—by proportion—lovely, by imagination—comfortable, by ingenuity—secure, by honesty; with such materials and in such space as you have got to give it." So with architectural painting—it must be lovely by imagination, pleasing and sincere in its accomplishments, and in such space as you have to give it.

Much of modern painting, with its pretense and striving for unusual and novel effects, is confusing to the average man who expects a "reasonable likeness to nature to be a part of the scheme in painting . . . designed in tone and fairly representative of what it pretends, natural or otherwise." Such pictorial skill might satisfy the curious and even be ever a delight if within the range of the intellect and vision of the modern man. It is said that with a deep resolve to look at things as they were, Giotto "suddenly thrust aside all the glitter and all the conventionalism; and declared that he saw the sky blue, the tablecloth white, and angels, when he dreamed of them, rosy. . . . And he simply founded the schools of color in Italy—Venetian and all."

Quoting from Sylvester Baxter: "No living painter can put away his modernity. Though he may assimilate the feeling of the ancient art he cannot approach his subject in the spirit of the masters of bygone centuries—their simple faith, their sublime confidence in its reality, their direct and perhaps naive interpretations. It is not desirable that he should. He has his task to work out in his own way, and the spirit of his own century must in some fashion infuse itself therein if it is to be vital creation and not an echo of the past." We expect to see the modern mural decorator at his best in strong and earnest work; the subject must be agreeable and pleasing to the painter, and that he may exert his full vigor and power, it must be of size; above all the subject should be interesting to others.

Few artists in America have had such an opportunity as Arthur Mathews in which to display pictorial skill in mural decoration. California, with its wonderful atmosphere, reminds the visitor particularly of sunny Italy. Our state has been more than lightly touched by romance. The Spanish occupation, with its gentle Franciscan fathers, once more lures the artist to paint the story of St. Francis which became such a passionate tradition in and subsequent to Giotto's time—"told and painted everywhere with delight." The numerous works of Mathews cover a field of wide range and versatility—portraiture, the nude, landscape, marine and architectural painting.

The twelve decorations in the rotunda of the state capitol building at Sacramento are divided into four triptychs, representing in periods the life and development of California; beginning with the aborigines and the first appearance of the white men; the Spanish occupation, settlements, and building of the Missions; the kindly and thoughtful padres, monastic and domestic, with their influence upon the natives and their encouragement of agriculture with the cultivation of the olive and vine and other fruits of civilization; then the American invasion following the discovery of gold, with the swift industrial development and other achievements in California, and finally visions and glimpses into the future.

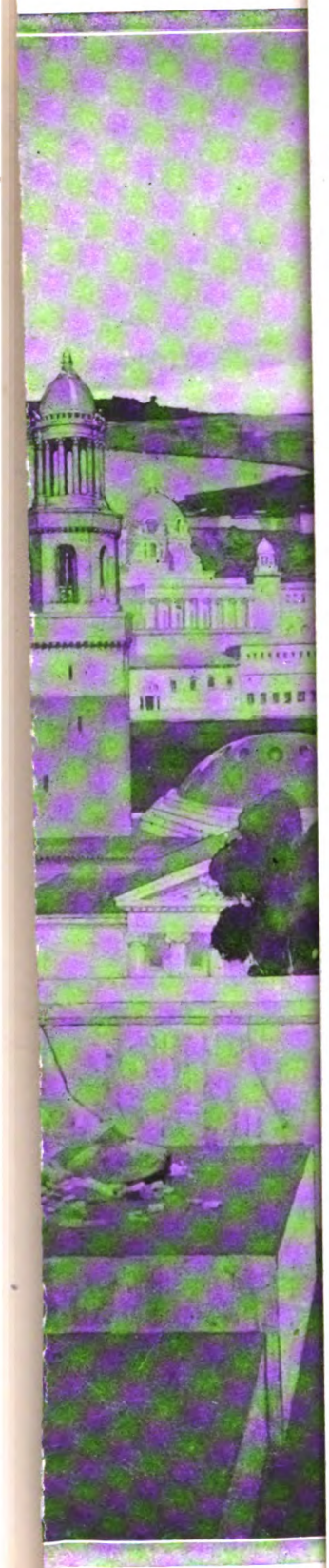
Definiteness of periods has not been maintained, the circle of walls giving rare opportunity for a continuity in which the painter could the more freely develop his theme. The peaceful conquest of the favored land and the urge of worthy endeavor are therefore carried forward in a procession of symbolism from the first panel to the last.

These murals, with their accompanying symbolism, may suggest some daring and originality in their conceptions as compositions; nevertheless there is a restraining strength and respect for traditions—the desire for natural expression and no striving for the unusual or novel. As in Mathews' other larger paintings, there is a superb draftsmanship and at times a brilliant display of skill in the handling of masses of color. In the drawing of the figures, something of the gift of portraiture is revealed besides well-composed groupings; wherever these figures appear, there is always an interesting background of hill country, sea or bay, and now and then a bit of architecture, and, as in the "Dream City," more of it, and in an important place; a subject interesting for him to do. Throughout his work one sees the infinite care bestowed upon each and every detail; be it only a tree or some foliage, there are the same carefully drawn lines and "no forgetfulness of main subject, but in harmony and completion of it."

In Mathews' work there is that sense of beauty, power, and harmony of color—at times delicate, simple, and with gathering strength flowing out into a wealth and brilliancy of tone—luminous and gorgeous clouds floating and rolling in a sky of beautiful blue over sea and bay of that deeper blue known to "Monterey" and the "Riviera"—that feeling for rare color which so powerfully expresses our California atmosphere. May we hope that these paintings will be a heritage and inspiration unto the future in this land of the setting sun.—E. A. M.

Arthur Mathews.

tened Indian, in his uncertainty, has
he Knight Errant vainly seeking the
of Light is carrying the secrets of life.
he Christian monk behind her. She
w. The Angel passes silently, like a
heavily laden bearer who swiftly but
of San Francisco Bay. A handful of
land sea. They barely count in bulk
g multitudes.



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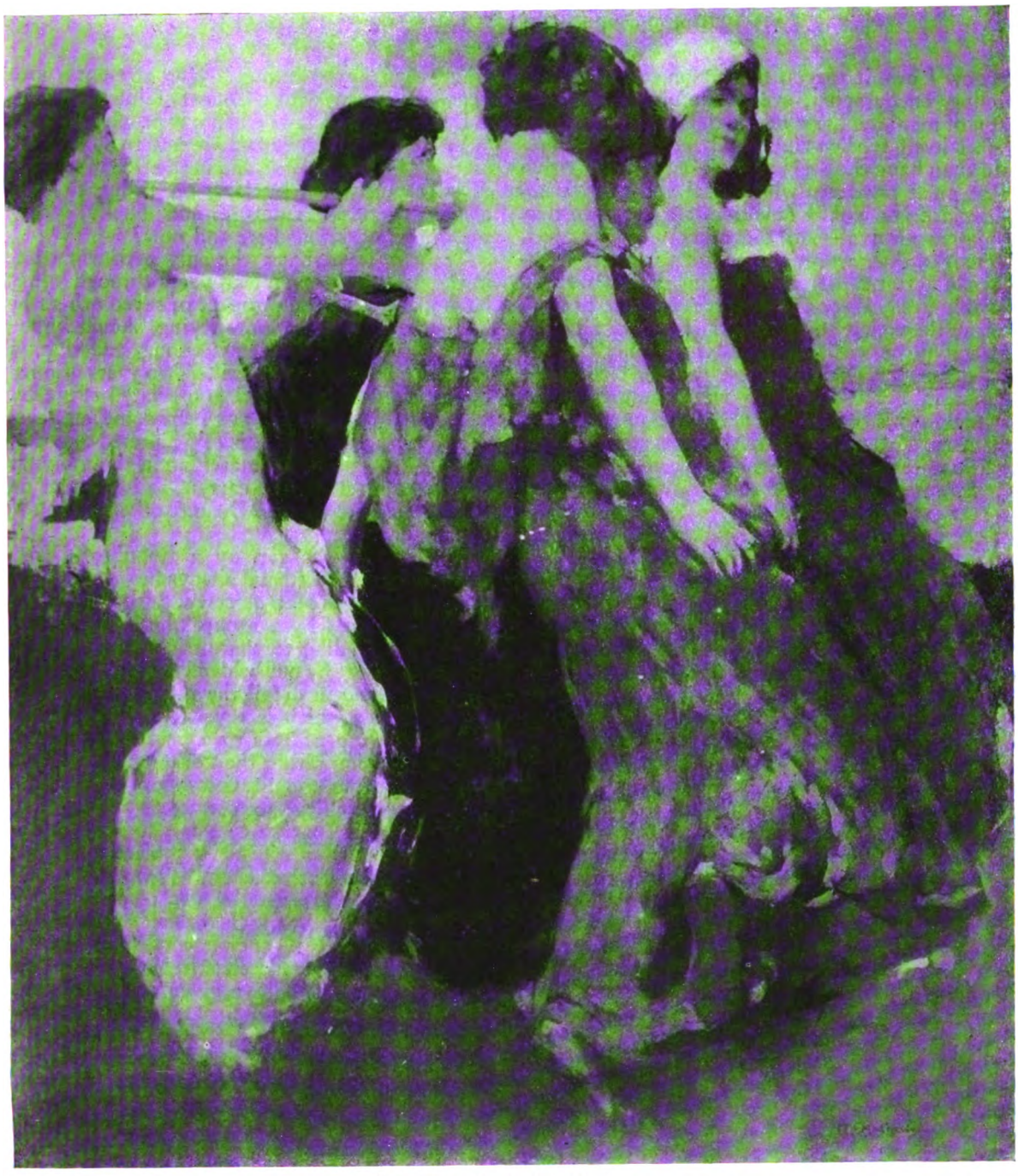

PAINTING—By Arthur Mathews

53rd Annual Convention of the Institute

ADDRESS OF PRESIDENT THOMAS R. KIMBALL

I know I owe it to you to say something restful, consoling, encouraging, even hopeful; certainly no section of mankind has a better right to hear and see and feel itself fairly valued and reasonably appreciated than have the architects, as one small division of that great army, to whose skill and patriotism, self-sacrifice and public devotion, all men owe this, their latest survival—and our million, more or less, millionaires, their war-made millions. Surely nothing would better satisfy the yearning within me than to be able to say these things that are due to be said, so to say them that they might be heard of all men.

To commerce, well organized and keenly alive to its opportunity, a golden harvest has been returned—returned in figures that are almost unbelievable. "Scandalous" is the word used by a merchant of my acquaintance, to characterize the tidal wave of ever increasing profit that has poured in upon him, among others, whose lives chanced to be cast in the moulds of barter and trade.

Of the host whose offering was service, war-needs have brought to these engaged in so-called "useful pursuits" a bounty hardly less profligate; while to the architect and many of his brother professionals, without whose technical skill and far-reaching vision neither commerce nor labor could have passed beyond the first line defences—to him, and to them, the fickle hand of fate has offered little beyond the chance to show the material of which he and they are made, and to furnish examples of that finest of God's creations—"a good loser." All of which intensifies my regret that I may not cry the facts from the housetops to the farthest corners of the land, and so loud that none should fail to hear.

Much as I honor the game spirit that prompts it, the ever present smile behind which we architects seek to hide the unhappy truth, is becoming little short of sickening. Can it be that that threadbare word "camouflage" is to be our legacy from the War? Must we go on displaying this brand of deceit—human pewter masquerading under a silver hallmark—that we may laugh with the rest of the world? Is it right, is it fair, to keep up the smile for the sake of an exploded idea? Isn't it time to discard *deception* and try the *truth?* Why should we punish the profiteer when profiteering is the teaching and example and pride of our people, and during our generation at least, always has been? If we are to condemn the "added talent" of Scripture, why encourage a great central Chamber of Commerce lobby headquarters here in Washington? Why continue to invite the charge of maintaining a local architectural lobby, for that matter? Why a percentage (a profiteer's) basis for professional service? Why call ourselves a National Society on hardly a 10 per cent representation? Why attempt a comprehensive program with a Country Club organization? Why nation-wide laws when our problems are local? Why continue to smile and pretend to be happy after seven years of privation and in the face of seven more of uncertainty? Why keep on trying to legislate against the laws of nature; and, finally, why such topics and questions here and now?

The last is, perhaps, the only pertinent question in the list. The seven lean years through which we have lived, with the prospect of seven others before us that may be even more trying, should have convinced us that something is wrong, and that whatever it is, it is no mere detail. Two years of purposeful though none too well appreciated effort by the Post-War Committee have helped me, at least, to the conclusion that in this self-centered age the professions (so-called) are marching in the vanguard of the army of selfishness, carrying a banner of deception bearing the motto, "Do unto others as you would be done by."

Our Institute is run by a Board of Directors, always wisely chosen and always functioning beyond criticism. It has been officered, during this administration at least, by a group whose only strife has been a contending to share each others' loads. A masterly report by our beloved Secretary will shortly lay before you in detail the record of Institute activity—all of which is my excuse for transferring the President's address to a field of generalization and speculation rather than of detail and record.

I know of no organization whose possibilities are greater—possibilities for service to Society, I mean. And I take it that so to serve to the limit of its capacity is what justifies any professional organization, this one not excepted. Two years of close observation, sharpened by the responsibility they imposed and kept at high tension by reason of unusual and rapidly changing conditions—two years in which an indulgent constituency and a willing, efficient instrument have given me most generous help, provide my excuse for assuming to parade before you, as worthy of attention, a group of ideas that, reduced to lowest terms, are neither more or less than your retiring President's personal opinions.

For the sake of argument let us keep in mind the fact that while the American Institute of Architects is still far from being numerically representative of the profession, it has from its birth furnished to the profession the ideals and examples after which the architectural practice of this country has been patterned, and has always been the court of last resort before whose bar all its serious and most important questions have been decided. Wherefore, in assuming for the Institute the credit of such leadership

we are debarred from disclaiming our share of the blame, where blame exists, for conditions that are not consistent with what should be present-day architectural heritage. During the sixty-three years of the life of the American Institute, profound changes have taken place in almost everything but the Institute itself; possibly out of love for its traditions, possibly largely the result of habit, those responsible for the A. I. A. have not seemed to take into account that its work has grown out of all proportion to its membership and machinery. The official instrument adequately to represent and make the most of a great public servant, such as is our profession, should count as members approximately one-half of those who legitimately practice that profession, which means we owe it to our pretenses to promptly secure a membership of at least 3,000, which in turn means better than doubling our present list. To do this, and do it fairly, changes are essential, membership must be made both more attractive and more easily attained. I place representation, adequate representation, as one of possibly three essential fundamentals in which the American Institute is not quite filling the bill.

A second important item in which we must assume for the Institute full responsibility, is the example set to all architects as well as to all professions, of valuing professional service upon a percentage basis. To the baneful effects of this one *faux pas* I ascribe most of our really serious troubles. Certainly failure to hold, in a higher degree, the confidence of the public and of the client, is traceable directly to this fallacious and mischievous source of suspicion which we have erected into a barrier between ourselves and our clients and Society. Until architects as a class realize this and better understand the nature and extent of the harm done, I feel perfectly sure they will never enjoy that position of trust in the community to which their qualifications should entitle them, nor will they achieve that degree of usefulness which the public has a right to expect of them; and until the American Institute has set the example of changing this, to me, perfectly indefensible system, to one which by its nature removes the cause of suspicion, I feel the Institute will continue to occupy a position of not quite "filling the bill." This item of a right basis for professional charges is, to my mind, one of those three fundamentals in which we are not quite measuring up, and for which I earnestly bespeak a cure.

My third complaint is a more domestic matter, and has to do with one of our intimate peculiarities. Does it require argument to commend the very best form of organization? Is our work less in need of the elements that make commercial organizations succeed? If leadership is the keynote to success, is there any good reason why we should disregard those conditions that foster just that element in practically every form of organization that goes forth to do a man's work. The Executive found in municipal, county, state, and national organizations has always some element of power which, like the White House veto, provides the trading basis whereby the Executive may to some extent enforce the consideration of his policies. Throughout industrial and commercial life, the same control of power that places an executive in office provides him with the kick he needs to make leadership worth exercising. In most social clubs and in professional associations the executive means little more than nominal leadership, and its functioning seldom even justifies that. There is indicated for this association, however, a tremendous opportunity and one that should justify clearing the way for the highest type of Executive leadership. I can offer no suggestion fraught with more promising possibilities than that our future Presidents should be provided with an instrument more effective than the opportunity to persuade and the right to vote in case of a tie.

Certainly no member of the Iustitute could undervalue the honor attendant on executive preferment at the hands of its membership; but it is conceivable that in the light of possible achievement some very desirable candidate might seriously weigh his chances of rendering a service—under present conditions—that would warrant the sacrifices involved in the two years of concentrated thought that will more and more be demanded as we more and more fully accept for the A. I. A. its obligations to Architecture and to Society. Let those who would have the Institute more fully measure up to its ever increasing opportunities for leadership in service to the public consider well this thought.

Now just a word of the satisfaction and regrets that mark this passing Administration. For the thousand added memberships for which I made my futile appeal of a year ago I have not quite a thousand regrets, but, unhappily, nearly so; comparison with the progress made by other professional groups shows the Institute in its usual position—at the foot. While a net gain of 83 in 1919 is said to be almost the banner performance of our history, it compares but feebly with 1,232 for the same time, as an average result, in the case of five engineering societies; or with one particular technical society, fifty years of age, which in one week added to a membership of 1,200, just 2,000 new members—illustrating what may be done with tools, even though in our case we might not care to use the same tools. As a step toward a real result in the membership campaign that is in the air, let me suggest tinkering a bit with a time-honored canon that forbids competition in price. Let us open the door (by abolishing this canon) to all those boys who have been too honest to accept a law they felt it dishonest to abide by; and to all those beginners who through modesty have hesitated to assume equality of performance with the leaders of the profession—which only could justify equally high fees. I believe that alone would enfranchise the whole balance of the thousand, for which I am recording a regret.

Undoubtedly, the most unusual activity of the

present Administration, and I believe it the most unusual in the history of the Institute, is the work of the Post-War Committee. For me, it sets the high-water mark of satisfaction. The liberality and courage with which the Institute supported its President in this entirely unselfish, as well as unusual activity, will go far, I think, to answer the critics whose conplaint has been that we are a close corporation with only our own interests at heart. I know of no parallel, no case where a professional body has generously financed an effort in which its members were no more interested that were all the rest of the profession; and in this case, too, it has not been only the profession of Architecture, but every profession, that has come in for its share of attention, and will certainly reap part of the reward. The way in which the Post-War Committee and its Executives Council have devoted time and energy when those two essentials were, perhaps, at their highest market price, is a matter of the greatest gratification to me, and should be a source of pride to every member of the Institute, and every architect in this land.

My regrets in this connection have to do with conditions beyond our control. It would be a paradoxical to include the ending of the war among things to be deplored, yet there is no denying that the signing of the Armistice brought to a sudden close a period of great mental activity and promise; particularly is this true among those workers who had been forced to make the greatest sacrifice as a consequence of the war. Depleted larders and colossal obligations were not to be ignored, but it is *regret*, not criticism, that expresses my feeling for those who at that time dropped completely all occupations, physical and mental, that had not to do with recuperation. It is to this occurrence and condition that I wish to direct the attention of all those who may fancy that the Post-War Committee's effort has in any sense been lost. Nature's finest growths are from slow-germinating seed, and I have no hesitancy in prophesying that the seed sown by the Post-War Committee will yield a perennial crop, and of exceptional value, as long as architects shall practice and their works endure.

In the one item of Inter-Professional relationship the Post-War Committee has sown a seed, the fruit of which will, I believe, be of incalcuable and immediate value to every one whose contribution is service. It may well be that in this one suggestion there may have been started that new social instrument for which we have all been waiting, and the need of which is so eloquently espressed in every phase of the ever-increasing struggle between the hosts of progress and of inertia which marks beyond all other things the age in which we live.

I should be recreant to my sense of duty were I to omit recording a protest against such a wide difference as exists in the Institute between the workers and the others. We can hardly hope for great Institute achievement while it is left to so few to serve so many. In this thought I voice the personal contribution of our Secretary in his ever-recurring plea that the Chapters may come to recognize that they are the Institute, and as such may begin to assume its responsibilities and duties.

For those among us—I may not say how large or small the group—whose evident pleasure it has been to destroy and obstruct, I have only the wish that they may come to see the error of their ways before it is too late to perform some useful service in extenuation. Perhaps in no particular has unfriendly manifestation been more fruitful of misfortune and more costly to the Institute than in the continued opposition on the part of certain individuals and groups to the success and growth of the JOURNAL, the continued high character of which is certainly one of the greatest satisfactions that I have to record.

Among the contributions to Institute welfare and success that we should not fail to recognize, is the creation of the Architectural Press, and we must render to our Treasurer, Mr. Waid, a tribute of appreciation for his part in it, worthy of the example he has set, in going outside of his implied responsibilities to offer a splendid service to the Institute, and at a cost to himself in time, patience and money, sacrificed, that it is hard to overestimate.

In connection with certain occurrences during this administration for which some may feel sorrow, I should be inconsistent, preaching to a text of "truth in place of deception," if I were to express regrets for any circumstances resulting from the placing by anyone of any individual personality at a higher value than the best interests and welfare of our beloved Institute. I, therefore, intentionally omit from this address the recording in such cases of the usual expression of regret. Before closing, I wish to record my deep appreciation of all who have worked with me in the service of the Institute during the past two years, many of whom are of those who not only hide their light under a bushel but who do their praying in secret as well. Certainly no Executive of the Institute has ever had more loyal support, and I believe none has more highly valued such support.

Let me close with a plea for a larger view of things architectural, that we may not fail to correctly interpret the messages meant for us in the readjustment taking place in the world today. If in the physical *impasse* that threatens to stop all building, regardless of cost, there are signs of the ultimate return of money to its legitimate place as a scale of measurement; and if in the new significance that has been given to the word "*denationalize*" we may rightly discern a first step toward the universal brotherhood of men, then I say there is that in our future to justify all and everybody that has sacrificed, and our abiding faith in the wisdom and justice of all things.

53rd ANNUAL CONVENTION OF THE INSTITUTE

Summary of the Convention Proceedings.

The Convention assembled in the Hemicycle of the Corcoran Gallery of Art on Wednesday, May 5. It adjourned finally on the evening of May 7, at the close of the informal dinner at the Chevy Chase Club.

All of the sessions were marked by great harmony and a very evident desire on the part of the delegates for a full and free expression of opinions. Perhaps no Convention has ever dealt with a greater variety of subjects, and certainly no Convention was ever more alive to the problems which have been forced urgently to the front as a result of the war and the reactions produced. As always, regret was expressed that the Convention could not arrange to devote more time to the esthetic side of architecture, but it must be obvious that if the profession is to deal intelligently with the collateral factors of the building industry—and these are in no way abating their demand to be dealt with—the time of the Convention will have to be extended at least another day. In the present case, it was apparent, near the close, that discussions of important matters had to be briefed in order that the full calendar might be concluded.

The Convention was also marked by several new departures. The presence of the invited officers of some of the State Societies lent a more democratic atmosphere to the whole event, while the address of Mr. Haggerty, representing the Bricklayers of Philadelphia, evoked the heartiest applause. So far as the writer knows, this was the first time that a Convention has listened to an opinion directly from the ranks of the workman. Perhaps it is an augury for the future, for the experiences of the architects of Philadelphia in meeting with the bricklayers of that city in a joint discussion of their common problems, as narrated in the JOURNAL and as described by Mr. Haggerty, must have left a deep impression on the delegates.

The architectural exhibition which had been assembled through the cooperation of many Chapters was also voted a great success and the Convention directed that every effort be made to establish it as a permanent feature of all future Conventions. The most important actions of the Convention must be summed up with the utmost brevity, but one does not hesitate to venture the prediction that the Proceedings of this occasion will be of the greatest interest, and that they will afford a book of reference which architects will consult over and over again. The Convention opened with the address of President Kimball, which may be found on page 220 of this issue.

Membership

The total membership of the Institute on May 1, 1920, was 1,580 (as against a total on April 15, 1919, of 1,499), and is made up as follows:

Fellows	287
Members	1,178
Honorary Members	81
Honorary Corresponding Members	34

Since the last report of the Board there have been:

Advanced to Fellows	8
Elected Members	130
Reinstated	5
Elected Honorary Corresponding Member	1

There have been the following resignations and removals:

Fellows	4
Members	26

The total of new active members elected has been 135.

The total number of resignations, removals and deaths of active members has been 51, leaving a net gain in active members of 84.

The following deaths have occurred during the year:

Fellows

George Archer	C. F. Schweinfurth
J. Cleveland Cady	George T. Tilden
Henry W. Hartwell	Wm. S. Wicks
Otto H. Matz	James H. Windrim
R. H. Robertson	

Members

Victor F. V. de Braumers	E. A. Richardson
F. L. Francis	Edw. P. Russell
Thomas F. Huber	G. T. Snelling
Woodruff Leeming	James Sweeny
Hill C. Linthicum	Fred. A. Tompson
George T. Pearson	Clarke Waggaman

Honorary Members

Andrew Carnegie	W. C. Sabine

Honorary Corresponding Members

Tokuma K. H. Katayama	Tatsuno Kingo

Finances

The report of the Treasurer disclosed the following gratifying financial situation of the Institute:

	Dues received	*Expenditures.*
1914 (less than)	$23,000.00	$23,800.00
1915 (about)	25,000.00	21,599.00
1916 (about)	25,000.00	21,482.00
1917	25,815.00	24,443.00
1918	23,502.00	22,457.87
1919	28,075.00	33,760.44

The excess of expenditures over receipts in 1919 is accounted for by the expense of the Post-War Committee and the JOURNAL. To meet this excess, $4,800 was borrowed from the Reserve Fund, which now stands at $34,778.96f for in spite of the heavy expenses for 1919, the sum of $5,620.13 was added to the Fund.

The Reserve and Endowment Funds

In this connection the Treasurer's report reveals the fact that resort has been had to the Reserve Fund but three times. First, $3,000 was taken to pay off the mortgage on the property adjoining the Institute, saving an annual interest charge, and giving the Institute free ownership of a property which has much increased in value. Second, $1,500 was taken to pay Mr. Glenn Brown for making the drawings of the Octagon used in publishing the Monograph. The remainder of these books is now owned by the Institute which hopes ultimately to sell them and repay

the underwriters who subscribed the fund for the publication of the Monograph. Third, the sum of $4,800 was taken as described above. This is to be repaid in annual instalments, with interest, the first of which, in the amount of $1,000, is provided for in the budget of 1920.

In accordance with a mandate from the Fifty-second Convention, the Board submitted to the Fifty-third Convention amendments to the By-Laws in regard to the establishment of an Endowment Fund, "which is intended to be inviolate as to its principal so long as the American Institute of Architects shall endure." The amendment was adopted, together with another ordering the transfer of $20,000 from the present Reserve Fund to the new Endowment Fund. The Board now has power to add to the Endowment Fund, from the Reserve Fund or other sources, in such sums and at such times as it may determine. The income of the Endowment Fund shall be used only for the maintenance and improvement of the property of the Institute, or for increasing the principal of the fund.

The Treasurer also reported that more than 350 members of the Institute had subscribed for bonds of the new Press, in the amount of over $33,000. (A statement in this connection may be found on page 207.)

The Journal

At the request of the Board of Directors Mr. Medary prepared a historic statement of the JOURNAL which was read to the Convention. This report will be published in the Proceedings, although we regret that its exceeding length makes it impossible to publish it in the JOURNAL. It sums up the history of the JOURNAL from its inception, gives a complete financial summary for each year's operations, and will, it is hoped, give members of the Institute an idea of the problems that have been encountered, for, as Mr. Medary said: "The world went to war in the summer of 1914, and the JOURNAL, when only a year and a half old, with no capital, was faced with a struggle for existence arising out of rapidly rising costs and readjustments of all phases of industry, reaching a climax during the participation of our country in the war, and now entering a phase where the almost prohibitive cost of construction offers no immediate hope of stabilized conditions in the building industry."

Touching upon the new Press of the American Institute of Architects, Inc., the report of the Board of Directors contained the following:

"The organization of the Press and its bond issue does not terminate, however, all financial relations between the Institute and the JOURNAL. The Board believes and so recorded in the Minutes of the Meeting in New York, November 11, 1919, that the Institute should carry in its budget each year an appropriation for the JOURNAL in recognition of the work done for the Institute by Mr. Whitaker which, while ultimately connected with his work for the JOURNAL, is wholly Institute in its effects. The Board has assigned out of its contingent item in the budget for 1920 the sum of $500. It is the hope of the Board that in future years an increased income will permit of an adequate apportionment for this purpose.

"Ever since the JOURNAL was started the question of the distribution of the JOURNAL to every Institute member in return for a definite portion of his dues, which portion would be turned over to the JOURNAL in payment therefor, has been a moot question. The Board believes that this policy should be made effective as soon as possible. Matters of Institute finance, as well as JOURNAL policy, however, are involved. The sum required by the regulations would be about $4 for each member. This represents 20 per cent of our income from dues, a sum between six and seven thousand dollars. To do this, without increasing dues, would seriously handicap the normal activities of the Institute unless a sudden large increase in members made up the deficit."

(Note: By resolution of the Convention the Board was authorized to arrange for the distribution of the JOURNAL to all members if, in its opinion, the finances of the Institute would permit it.)

Education

The report of the committee was very exhaustive and was explained in general by Mr. Zantzinger, while Mr. Nimmons detailed the second half of the report relating to the proposed publication of a new book on the Fine Arts, designed not only to serve as a textbook in colleges and other institutions but also as a general handbook for the public, among which it is hoped to stimulate a greater appreciation in the fields of architecture and the allied arts. Doubtless the program for an essay, which is to form the introduction to this book and which was printed as an appendix to the report, later will be made generally available to all those interested.

The report of the Committee contained the following resolutions which, with slight deviations in the case of the second, were recommended for adoption by the Board:

WHEREAS, The schools of architecture generally are so organized as to condense their period of study to four years, and

WHEREAS, A consideration of the courses given shows that they are generally good but hampered by a too great condensation, and

WHEREAS, It is the conviction of the Convention that more courses, more thoroughly given, are requisite, therefore be it

Resolved, That the American Institute of Architects does hereby recommend to all schools to lengthen their course in architecture to a period to exceed four years in order to make it possible to include such necessary studies as have been left out of the curriculum, and to give more time for the more complete assimilation of the subjects taught.

The resolution was laid on the table, after lengthy discussion.

The second resolution was adopted, as follows:

WHEREAS, The American Institute of Architects has previously and does now encourage the adoption of laws for the registration of architects by all states, and have to this end prepared a typical law for the guidance of such legislation, and

WHEREAS, The efficacy of such laws can be greatly enhanced by the adoption of proper standards of professional competency and equitable methods for their determination, therefore be it

Resolved, That the American Institute of Architects, while convinced that many states will wish to set up higher standards, recommend as a minimum standard both of professional competency and methods for its determination, the standard adopted and the methods now employed by the State of Illinois.

Structural Service

The report of the Structural Service Committee, together with the new Standard Construction Classification is published *in extenso* in the Structural Service Department of this issue, page —. The question of financing the proposed extension of the Committee's activities was referred to the Board of Directors.

Small Houses

The report of the Committee on Small Houses narrated chiefly the history of the formation of the Architects' Small House Service Bureau, Inc., of Minnesota, an account of which appeared in the May JOURNAL. The Convention enthusiastically approved the suggestion made by the Committee and the Board of Directors of the Institute therefore was directed to organize the "Architects' Small House Bureau, Inc., of the United States." The resolution embodying this action explained that this should be "a national body, properly incorporated, the Board of Directors of which shall be identical with the Board of Directors of the Institute." The function of this body would be to guide and control the formation and operation of other Small House Service Bureaus in the United States. It would have no financial transactions whatever.

The adoption of this program may be said to have crowned the efforts of numerous men and Chapters in the Institute, during the last few years, looking to the contribution, by architects, of a widespread and inexpensive professional service to people who desire to build small houses. The Minnesota Bureau has already begun the publication of a small descriptive bulletin called "Your Home," in which are illustrated and explained the several types of houses, the plans for which are offered for sale at nominal prices. Other bulletins will be issued and ultimately this work may be taken over as a part of the JOURNAL.

(Note: The Convention directed the appointment of a committee to consider the whole problem of financing the building of houses.)

State Societies

This subject was very thoroughly covered in the last number of the JOURNAL, and was of course much debated during nearly a whole session of the Convention. It was evident that all were on common ground in seeking the method of professional organization which would best meet the needs of all the architects of the United States. The Board, in its report, recommended that a special committee be appointed "to study the subject fully in relation to varying local conditions to the best development of the Institute organization, and the most effective organization of the profession as a whole to meet the needs of different districts and report to the Board of Directors at its meeting just prior to the Convention of 1921." This recommendation was adopted.

(Note: It was voted, as the sense of the meeting, that this action should not be construed as nullifying the action of the last Convention, which directed that the Board "encourage the organization of State architectural societies.)

Competitions

The Board, at the request of the Boston Chapter, referred to the Convention the following resolution: "An owner may purchase unlimited professional service on a basis of adequate remuneration and control, where two or more architects prepare sketches at the same time and in the same manner for the same project, provided the following conditions are complied with: The owner shall provide a professional advisor. He shall be an architect of the highest standing, and his selection shall be the owner's first step. The professional advisor shall see that each architect employed be informed as to all the others, and the remuneration for the preliminary service so rendered be uniform for all and agreed upon by all the architects employed as satisfactory and adequate.

"The professional advisor shall see that all drawings requested of the architects be on the same basis and presented in the same manner, and he shall act in an advisory capacity only, the owner not being obliged to accept the recommendation of the advisor in making the final selection."

The proposed change in the Competition Code served again to indicate the very great difficulty of setting up a statute governing the conduct of architects, in negotiating with a prospective client, such as will protect all the parties concerned against unfair dealing. In reading the proceedings, this chronicler is struck with the very evident conviction of those who defended and those who opposed the resolution, and their arguments raise questions not by any means lightly to be decided. In the end, a substitute motion prevailed, by which the Board was directed to request all the Chapters to send to it a digest of their considered opinion, so that the question may be more intelligently discussed at the next Convention.

Schedule of Charges

The suggestion of the Cleveland Chapter that the minimum rate in the Schedule of Charges be raised from six to eight per cent was referred back to the Chapters of the Institute for study during the coming year, the Board being authorized to issue a statement covering the point, if it sees fit.

Jurisdictional Disputes

The publication in the JOURNAL of the list of awards made at the first sitting of the National Board of Jurisdictional Awards, together with a reminder to members of the Institute that they had been bound by action of the Fifty-second Convention strictly to observe these awards under penalty of suspension, gave rise to much inquiry and some misgivings. The Chairman of the

Board, Mr. Russell, addressed the Convention on this matter, and explained that the awards apply to union labor and the employers thereof. Architects working exclusively in open shop districts may specify any material they like under whatever heading they choose. If, however, their work is performed by what is known as the closed shop, in part or in whole, they will save themselves a great amount of trouble by simply segregating classes of work, according to the decisions of the Board of Awards, in their specifications. No reference has to be made to "union" or "non-union" labor. (Note: An official circular of information will be issued to members of the Institute.)

Community Planning

The report of the Committee is published under the Housing Section of this issue.

Conclusion

The above summary will furnish some idea of what happened at the Convention. In the brief time between its close and the going to press of the JOURNAL it is impossible to go into further details. But brief mention must be made of some of the incidents which lent pleasure and charm to the sessions. No delegate will forget, for example, Mr. Kendall's delightful presentation of the report of the Committee on Nominations; or Mr. Sturgis's urgent appeal that Mr. Coolidge consent to let his name stand in nomination for the office of President; or the regret with which Mr. Coolidge expressed his inability to assume the burdens of the office; or the greetings expressed to Mr. Keller and Mr. McLaughlin, both of whom have been members of the Institute for more than fifty years. These brief moments of fine fraternal feeling served to relieve the strain of discussions which rose at times to more than usual heights of interest and brilliancy.

There was no award of Fellowships. In the report of the Board it was stated that no nominations had been made "in view of a very strong sentiment in opposition to past procedure." A committee has been appointed to study this question and it is hoped that definite recommendations governing the nomination of Fellows may be made to the next Convention.

Committees of the Institute for 1920

Immediately after the Convention the Board of Directors met and appointed the Committees for the year, the appointments being subject to acceptance. The complete personnel of the committees will later be published in the Annuary. The appointments were as follows:

Executive Committee

HENRY H. KENDALL	Boston, Mass.
WILLIAM STANLEY PARKER	Boston, Mass.
D. EVERETT WAID	New York
ROBERT D. KOHN	New York
ERNEST J. RUSSELL	St. Louis, Mo.

Committee on Practice

JOHN LAWRENCE MAURAN, *Chairman*	St. Louis

(Members in Chapters reappointed. See the Annuary for 1919.)

Judiciary Committee

WILLIAM B. FAVILLE, *Chairman*	San Francisco, Calif.
RICHARD E. SCHMIDT	Chicago, Ill.
ABRAM GARFIELD	Cleveland, Ohio

Board of Examiners

EDW. W. DONN, JR., *Chairman*	Washington, D. C.
A. P. CLARK, JR.	Washington, D. C.
OSCAR G. VOGT	Washington, D. C.

Committee on Contracts

WM. S. PARKER, *Chairman*	Boston, Mass.
M. B. MEDARY, JR., *Vice-Chairman*	Philadelphia, Pa.
F. E. DAVIDSON	Chicago, Ill.
EDWIN H. FETTEROLF	Philadelphia, Pa.
GOLDWIN GOLDSMITH	Lawrence, Kansas
SULLIVAN W. JONES	New York
E. J. RUSSELL	St. Louis, Mo.
RICHARD E. SCHMIDT	Chicago, Ill.

Committee on Allied Arts

WM. B. FAVILLE, *Chairman*	San Francisco, Calif.
EDWIN H. HEWITT	Minneapolis, Minn.
CHARLES Z. KLAUDER	Philadelphia, Pa.
FRANK B. MEADE	Cleveland, Ohio
J. MONROE HEWLETT	New York

Committee on Public Works

CHARLES A. FAVROT, *Chairman*	New Orleans, La.
WALTER D. BLAIR	New York
EDW. W. DONN, JR.	Washington, D. C.
WILLIAM MOOSER	San Francisco, Calif.
IRVING K. POND	Chicago, Ill.
JOHN P. B. SINKLER	Philadelphia, Pa.

Building Committee

WM. M. KENDALL, *Chairman*	New York
EDW. W. DONN, JR.	Washington, D. C.
JOHN RUSSELL POPE	New York, N. Y.
D. EVERETT WAID	New York

Committee on Competitions

RICHARD E. SCHMIDT, *Chairman*	Chicago, Ill.
JOHN C. AUSTIN	Los Angeles, Calif.
THOMAS R. KIMBALL	Omaha, Nebr.
J. C. LLEWELLYN	Chicago, Ill.
ARTHUR WALLACE RICE	Boston, Mass.
SYLVAIN SCHNAITTACHER	San Francisco, Calif.
CHARLES W. STEINBAUGH	Omaha, Nebr.
W. R. B. WILLCOX	Seattle, Wash.

Institute Publications

One Year:	
HERBERT B. BRIGGS	Cleveland, Ohio
CHARLES L. BORIE, JR.	Philadelphia, Pa.
Two Years:	
BEN J. LUBSCHEZ	New York
MILTON B. MEDARY, JR.	Philadelphia, Pa.
Three Years:	
WM. STANLEY PARKER, *Chairman*	Boston, Mass.
R. MAURICE TRIMBLE	Pittsburgh, Pa.

Structural Service

SULLIVAN W. JONES, *Chairman*	New York
ROLLAND ADELSPERGER	Chicago, Ill.
T. E. BILLQUIST	Pittsburgh, Pa.
J. L. HAMILTON	Chicago, Ill.
F. Y. JOANNES	New York, N. Y.
SMITH O'BRIEN	San Francisco, Calif.
H. W. TOMLINSON	Joliet, Ill.
STEPHEN F. VOORHEES	New York

Preservation of Historic Monuments and Scenic Beauties

HORACE WELLS SELLERS, *Chairman*	Philadelphia, Pa.
W. R. BRIGGS	Stratford, Conn.
ARTHUR BENTON	Los Angeles, Calif.
ARTHUR BROWN	San Francisco, Calif.
GLENN BROWN	Washington, D. C.
GEORGE CARY	Buffalo, N. Y.
CHARLES A. COOLIDGE	Boston, Mass.
REINHARDT DEMPWOLF	York, Pa.
WM. M. ELLICOTT	Baltimore, Md.
NORMAN M. ISHAM	Providence, R. I.
ELMER C. JENSEN	Chicago, Ill.
FISKE KIMBALL	Charlottesville, Va.
A. L. KOCHER	State College, Pa.
L. A. LIVAUDAIS	New Orleans, La.
THOMAS MACLAREN	Colorado Springs, Colo.
L. W. ROBINSON	New Haven, Conn.
HOWARD SILL	Baltimore, Md.
EGERTON SWARTWOUT	New York
ORNAN H. WALTZ	Ithaca, N. Y.
NAT GAILLARD WALKER	Rock Hill, S. C.

Community Planning

JOHN IRWIN BRIGHT, *Chairman*	Philadelphia, Pa.
F. L. ACKERMAN	New York
FREDERICK BIGGER	Pittsburgh, Pa.
M. B. BISCOE	Boston, Mass.
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A. P. CLARK, JR.	Washington, D. C.
HERMANN DERCUM	Cleveland, Ohio
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BURT L. FENNER	New York
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H. OLIN JONES	Greenville, S. C.
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Book Reviews

The Caliph's Design. By Wyndham Lewis. The Egoist, Ltd. London, Eng.

A strange book this, its 71 pages consist of four parts and twenty-five chapters. It is concentrated reading and really, as the author himself says, is only a series of notes and short articles for future expansion into a book. These notes are assembled around and related to the parable of "The Caliph's Design," although the relation is often difficult to trace.

One day the Caliph arose from his bed of gold and for several hours he traced ardently, meaningless hieroglyphs on a piece of paper. After a long rest following this exhaustive effort, he forthwith called to him the most experienced architect and the most ingenious engineer in his dominions, and laid his scribbled sheet before them as the new design of a typical street in the capital city, being extremely dissatisfied with the old layout. The architect and engineer who quite naturally thought the whole thing a hugh joke and ridiculed it were dumfounded when ordered to have complete plans for the new street, following the lines of the Caliph's outlandish scribble, ready at ten the next morning. If the plans were not ready at ten then the architect and engineer would be decapitated. In despair they went about this task and fulfilled the Caliph's wish and finished in time "a series of the most beautiful plans that had yet been made in Bagdad . . . and within a month a strange street transfigured the heart of that cultivated city."

Of course Mr. Lewis tells it much more elaborately and beautifully and although you may not be able to relate all his future paragraphs to this parable, the little book can hardly fail to interest you, at times amuse you, and at other times make you angry, as for instance:

In the Preface:

"I have thought of a way for the Architect . . . . The Painter and the Engineer could buy him out, going into partnership, and produce what would neither be a world of boxes on the one hand, as it would be if the Engineer controlled house construction (*vide* skyscrapers), nor of silly antique fakes on the other, as happens when the Architect has his sweet and horrible way."

Under "Architecture:"

"Have you ever met an Architect? I do not mean a well-paid *pasticheur*, who restores a house or runs one up, in Tudor, Italian, or any other style. But a creative architect, or a man with some new power in his craft, and concerned with the aesthetic as well as the practical needs of the mass sensibility of his time?"

In "Child Art and the Naif:"

"The growth of the mind and of the body is so often not parallel, some people's 'mature' lives so long, others almost non-existent, that it is difficult to know where you are dealing with the art product of the child, or the child-like art of the adult."

Under "Machinery and Lions:"

"Just as the sculptors of Ninevah put the lions that were such immediate objects in their life, to good use in their reliefs; or the painters of the Sung period the birds and landscapes found by them in their wilfully secluded lives; so it was inevitable to-day that artists should get into their inventions (figures, landscapes, or abstractions) something of the lineaments and character of machinery."

But if we keep on quoting, this review will be as long as the book, which, as was said before, is bound either to interest you, amuse you, or anger you; perhaps all of these. It is then certainly worth reading.

The typography and general make-up are excellent.—B. J. L.

Housing and Community Planning.

Published in connection with the Committee on Community Planning of the American Institute of Architects.

JOHN IRWIN BRIGHT, *Associate Editor.*

Report of the Committee on Community Planning to the 53d Annual Couention of the American Institute of Architects.

An intelligent direction is necessary in any housing enterprise. In the case of the government, it produced houses whose main characteristics are quality, usefulness, and beauty. If the same degree of intelligent direction had been exercised by speculative interests it would have resulted in a subordination of all desirable features to the necessity of earning a profit on the investment. It is significant that we speak of the "necessity" of a profit and the "desirability" of good living conditions, because that state of mind is responsible for the indifference with which we view the disappearance, one by one, of all the desirable features of the home. When all is lost but private profit, we refuse to build, for that is the one thing which we canot bring ourselves to surrender.

The Government's War Housing.

The government, however, was able to do this, but the elimination of gain was, after all, a negative virtue and taken alone teaches but half the story. The positive virtue is the development of the community plan in which the welfare of all was considered before the supposed rights of any one individual. Housing produced by private enterprise, working primarily for a profit, cannot regard the social advantages of its customers as of equal value to the financial return on capital and it is therefore plain that if people wish to live under such admirable conditions as exist in most of these villages, the speculative builder must be barred out.

The physical arrangement of the houses is a distinct advance over the usual pre-war type. This was only to be expected, as never before was the national effort so concentrated on this problem, enlisting the best minds of the country in the effort to design and erect pleasing houses. Generally speaking, the houses were but two rooms deep and when the detached house was not possible, the rows were short and architecturally pleasing. It is to be hoped that these object lessons will exercise a stimulating influence on our future domestic architecture.

Unfortunately, these efforts have taught us nothing on the questions of land, finance, and management for the very good reason that the face of the government has been set against any study of these questions. As far as can now be seen, the houses will be sold to individuals and the values created by the community itself will ultimately revert to the individual or the speculator.

The Canadian Scheme.

In order to make it possible to build houses in Canada, its government has established a credit of $25,000,000 to be advanced to the different provinces. The entire fund has been distributed and will be used within one year, Ontario, on account of its greater population, receiving the largest proportion. The provinces lend to municipalities, which in turn lend to limited dividend housing companies or to individuals, the amount of the advance and the security varying with the circumstances. Each borrower in turn pays 5 per cent for the money and there is no overhead charge except in the actual designing and construction of the house. The loan runs from twenty to thirty years and is repaid in monthly installments. In addition to these enactments, all of the provinces appropriated funds of their own for housing, although the credits are smaller than those furnished by the Canadian Government.

With the exception of the province of Quebec, where an effort is being made to introduce the community-owned town, the theory of individual ownership and sale governs this experiment. The price of the house and the land is mentioned in the laws, but since the date of its promulgation, rising construction costs have made it necessary to somewhat lower the standards. It remains to be seen what will happen when, in the future, a dollar will buy more building than it does to-day, for the price of the land will then become a factor. While the land may be expropriated, it must be paid for at its market value and there is nothing in the law to prevent its mounting to a level which will again stifle production. This is a situation which has wrecked many housing schemes in the past.

In furnishing state aid to the prospective house builders the Government has tried to avoid entering into competition with private operators. In return for its lower rate of interest, it demands a certain standard of construction and design which is calculated to absorb any saving made in the use of Government money.

Active Work.

The active work of the committee during the last year has been confined chiefly to two things. First, the publishing of a report on the platting of areas for dwelling use and second, the organizing of a lecture tour on housing illustrated by moving pictures.

The study on land subdivision was written for the committee by Mr. Henry Wright, one of its members, and necessarily sets forth to a very large extent his own personal views on the subject. This is made clear in order that the main credit of the study should go to Mr. Wright himself. The JOURNAL will shortly undertake its publication.

The moving picture films for the lecture were ordered in England in the middle of 1919 for immediate delivery but have only arrived on the date of the filing of this report. As engagements for the lecture had been booked, the committee was forced to have a special set of pictures made

using recent domestic examples. These pictures have now been completed. Mr. Louis Lott, a member of the committee, has the lecture tour in charge and has made arrangements to show them in many localities. Using these and similar pictures, the chairman has delivered several lectures on community planning and has made a number of engagements for the near future.

The committee has received and answered a great number of questions on community planning coming from cities and Chambers of Commerce. The result of this work has been negative as without exception the questioners have acted as though under the impression that a community plan was a physical commodity mailable upon request. The efforts of the chairman and other members of the committee to present the question in a different light has in no case succeeded.

General Finding.

The general tenor of these requests seems to demonstrate that there is as yet no general public realization of the issues at stake. This can only be corrected by a campaign of education and in order to make a commencement on this line, the lecture tour has been undertaken. The committee hopes that the Institute will appropriate a sufficient sum of money for its continuance. The committee recommends that in presenting to the public the idea of community planning, a certain definite theory should be expounded. It is not enough to show pictures of charming houses. It should be taught that to obtain the result, certain changes connected with our ideas on finance and social rights must be effected. Not until industry is organized to produce socially useful goods can there be a real answer to the building problem, but without expressing itself on this question the Institute could perform a great public service in concentrating attention on immediate evils. The public expects its architects to advise it rightly on problems connected with plan and building and while rendering this service, we should fit ourselves to discuss the whole question. In this category, the protection of the value created by the community itself should receive the first consideration. This has been called inaccurately the unearned increment and the faculty definition has largely been the reason why its significance has not been generally comprehended. Increment is not unearned. It is earned, but, to use a bookkeeping expression, we have not credited the asset to the proper account. The neglect to balance it against its creative forces has permitted the impression that it is spontaneous in its origin and its rape is the right of the discoverer. It is the same logic which allows otherwise honest people to appropriate, without a qualm of conscience, the personal belongings forgotten in public conveyances.

We should make it clear that all of the value created by the community should revert to it. On the other hand, it is no less fitting that the prior rights of the individual to the values he created should receive recognition. The fair adjustment of these claims, conflicting at times, is a matter of judgment and not of principle, and, equitably arrived at will go far toward the solution of the land question. The Institute should urge that laws on taxation should be so formed that land speculation be eliminated. In this connection it should be pointed out that the general progress of recent town planning acts, in this and foreign countries, is along these lines.

The committee recommends that the doctrines be disseminated by means of the Journal, the public press and by pamphlets in addition to the lecture tour already under way.

The committee urges its successor to undertake the compilation and critique of town planning and zoning laws throughout the world in order that the usefulness and the trend of these ideas may be presented to the public in a concise form.

The committee does not consider its report conclusive. It will be content if the event shows that it has supplied to its successor a working instrument for future achievement.

The committee wishes to acknowledge the invaluable assistance which has been given it by the Editor of the JOURNAL. Its work would have been rendered vastly more difficult without his sympathy and advice.—JOHN IRWIN BRIGHT, *Chairman.*

NOTE.—Since the adoption of the above report there has been received from Brussels the following very interesting document concerning a financial plan for the rehousing of the workers of Belgium. Pursuant to the recommendations of the Committee on Community Planning, as contained in their report, this material is made available in the columns of the JOURNAL, although the report is of some length.

The translation has been carefully made in order to adhere wholly to the spirit of the author.

A Program for Financing the Rehousing of the Workers of Belgium

Introductory report by M. A. Van Den Bempt, Chief of the Bureau of Communal Property of the City of Brussels, submitted to the National Conference on Low Cost Dwellings in Brussels, April 24-25, 1920, under the auspices of the Union des Villes et Communes Belges.

I. Introduction.

The People's House, the Ownership of Land.

To give a logical conclusion to our study, we believe it necessary to explain that from the historic point of view, the community should remain or again become the owner of land and of the buildings erected thereon. To justify our opinion, we shall have to show, as succinctly as possible, by what steps the ownership of land, collective in its origin, has become private.

In the beginning of history, the communal ownership of land was not unique to any special country: de Laveleye notes similar observances in India, Germany, the North countries, in England, in Ireland. Everywhere the

ownership of land was collective and cultivation a common activity. One may admit that the village, the primitive type of the initial organization of communities, still retains the vestige of primitive communism. It is averred that in the unique ownership of property in common in France, as well as in Germany and in England, one may rediscover the origins of an ancient co-propertyship.

Man, at the beginning of history, sought in the family or in the clan, the means of defense and the satisfaction of his group instinct. From that time there has been born a legislation, long and complicated, the base of which has been to maintain collective ownership of the land. This legislation is notably clear in the Serbian code which consecrates all land to the community and excludes all private ownership. A law of Feb. 19, 1861, in Russia, clearly fixes the situation, in stipulating that "common usage is the mode regulated by custom by virtue of which the land is divided or from time to time allotted among the peasants, in fulfillment of the obligations attaching to use, with common responsibility for all."

The study of these questions leads to the conclusion that men everywhere grouped themselves naturally, lived together and cultivated the land in common considering it as the property of all. Then there followed a complete evolution. The exploits of conquerors destroyed the harmony of the existing society. Territory was divided among the victors.* A single man became the owner of both land and people. This is the origin of serfdom. It marks the end of the free man. It is the road leading toward the seignioralty of the Middle Ages.

But among people the group instinct has always remained. The slaves grouped themselves about their master. This permanent "elbow to elbow" existence gave birth to a community of obligations with complete exclusion of community of property. The slaves were compelled to cultivate a part of the land belonging to their master. This land was called "common land" or "common pasture."

The exchange of ideas and discussions slowly transformed the mentality of the people. They finally came to understand that in their narrow grouping they constituted a force, and this they proceeded to put into action. They began to apply pressure on their seignior. Through negotiations between tenant and master, the right to use became transformed into the right to possess. Usage was changed by contract. But it must be remarked that all of these transactions and conventions concluded between the two parties were still collective in form. The peasants, united, finished by becoming the collective owners of the land. But this situation did not put an end to constant abuses on the part of the master. In the face of these abuses, the peasants united themselves even more strongly in order to put an end to them.

Numerous proofs of this condition exist. A capitular of Charlemagne records the fact that evil practices on the part of the seigniors had obliged certain people to escape from the exactions through flight. Numerous lands were thus abandoned and reduced to solitude. The resistance of the peasants organized itself more and more completely. It was the origin of the serf societies. Their power became real. The seigniors were obliged to reckon with them, either through endless litigation or through insurrections. The serfs profited from the occasion by securing rights which were sealed in charters delivered by the seigniors.

As a result, the grouping of the peasants acquired an even more complete form. Their chiefs were chosen by election. The groups became communities. Thus were created those communes whose power is well known. Through force, through the power of finance, the communes obtained the concession of actual contracts, yet their autonomy did not exist. They still belonged to the seigniors, who sold them, gave them, transferred them, divided them. They were just as much exploited as were the peasants in the country.

It is not possible here to take up the history of the communes; we should stray too far from our study. But it is well to expose succintly just how, under the communes, the private ownership of land came into being. The land, collective at the beginning, became private property in the Middle Ages. A single man held under his domination, both land and people. The people rebelled at this condition and at the exactions of which they were the victims. They achieved their liberty and created the communes. The land thus became collective again.

But the communes changed their character. Created for the general good, they soon became dominated by a caste which appropriated, by money, by force, or by other means, the property and the functions of the communes. We shall endeavor, in the following lines, to explain this phenomenon as briefly as possible.

The commune, from its beginning, included classes with diverse tendencies and aspirations. Ecclesiastics, nobles, bourgeois, workers, laborers (the latter always considered as serfs) peopled the communes and essayed to make the most of their reciprocal claims. They demanded privileges. But a common desire animated them at the beginning. They wished to limit seignorial exploitation and they associated themselves for that purpose. Their power became real. Their emancipation, whether through peaceable or forcible means, was the result. It was the epoch of the revolt of the communes against the seigniors.

In the meanwhile the commune developed. It organized itself administratively. Public services became functions. The merchant and craft classes were formed for the purpose of economic betterment. It was, in fact, the origin of democratic government through communal assembly. This democratic regime did not maintain itself. The population of the commune rapidly fell into adversary classes. The most powerful, the richest, usurped the public functions. Oligarchy and anarchy soon became masters of the city. Beaumanior says: "We saw several fine towns where neither the poor nor the monks have any administrative power. The rich have all the power."

These social inequalities provoked irreducible dissensions between the two principal classes of the population; the proletariat, or the workers, and the aristocracy. Insurrections were numerous and bloody. The people were conquered, and the triumphant bourgeoisie usurped the powers of the commune, and later, its common property. These usurpations gave to the land its character of private property, and this transformation is the origin of the

*Note: The interested reader may care to consult the "Growth of the Manor," by P. G. Vinogradov (MacMillan).—*Editor.*

actual regime where we now find the land belonging to a few, although the true right to real property is collective.

If one examines objectively the evolution of societies, one must admit that logically and historically, the land should belong to the collectivity. The privilege of riches is not a sufficient reason, in our opinion, to justify the destruction of a regime which issues out of the natural aspirations of man. Essentially, man is born to live in common, think in common, possess in common. Furthermore, we may say that the communes, to-day, must create a common patrimony, not only to conform to their original character, but also to satisfy, for their populations, the well being which they have the right to demand.

Participation of Public Authorities

So far as concerns the special point with which we are occupied—the construction of low-cost dwellings—we esteem that the political line to be followed must secure, in the largest measure possible, the return to collective ownership of the land and the dwellings erected or to be erected thereon, principally for the workers. From the moral point of view, public authorities must make the effort necessary to cause the disappearance of the spirit of private possession. This spirit is condemnable because it carries in itself the germ of the narrowest egoism. It is the cause of the end, slow but sure, of all mutual confidence. For the workers, in particular, it is the cause of privations, of sufferings, alas! too often unknown, but which, nevertheless, must be made known.

The Results of Private Ownership

Whatever we may say, the private ownership of land is consecrated. It is the object of very extensive legislation. It has become a right of which one is free to dispose, cede without constraint, convert into money and bequeath to one's heirs or to others voluntarily chosen. But the right to a free disposition of land, the right to divide it voluntarily and without constraint, frequently sets up conditions incompatible with social needs.

The cities, limited at their origin by fortifications designed to protect them against the invasions and incursions of their enemies, grew in direct ratio to the growth of security felt by their population. The ensuing density became such that it was necessary to build a great number of lodgings for the townsmen. From the one side, the lack of all legislation governing building and hygiene, and from another side, the increment accruing to land through the accretion of population and the extension of industry and commerce, the resulting spirit of speculation led to the building of unhealthy houses, crowded too thickly on the land. The right to the private cession of land led to a defective and anti-hygienic lot division. The price of land was pushed to the extreme and the most scandalous speculations were the consequence.

Is this price justified? Is it just to hand the profit to a few? Must we not, on the contrary, ask for its return to the collectivity? These questions will be resolved later. In what concerns us, we shall examine somewhat the social consequence of the regime described.

The increment value added to land awakes, most naturally, the spirit of lucre. It is incontestable that this spirit is wholly incompatible with the desire to give to the occupant of a dwelling the maximum of well-being which he has the right to demand. It provokes also the fraudulent evasion of all legislation, no matter how rudimentary, as established by public powers. It leads to the search of means for giving the least possible for the most money obtainable. It breeds the epoch of unhealthy houses, of wretchedness, of stinking courts or barracks which are called "slums" by the English. It breeds, also, alas! the sorry era of epidemics, the death of thousands upon thousands, victims of the spirit of lucre and the appetite for gain.

Is one justified in reproaching Professor Einaudi for the following observations? "The class of land owners in towns fulfills no social function. It merely derives from its monopoly the means of extorting from individuals a constantly rising tribute. It exercises an evil influence on all social and economic life. In exciting real estate speculation it foments the continual periodic return of financial crises which, in themselves, are tragically disastrous; in holding land out of use, it raises the price of land, increases rents, and crowds the working population into indecent quarters. Habitations for the poor, as a matter of fact, are a very remunerative kind of investment, perhaps more remunerative than the houses of the rich which carry high maintenance charges. Finally, the helplessness of a population which is always seeking cheap rents, in connection with property owners who are unwilling to run the risk of building new houses, co-operates to render more acute, in the slums, the phenomenon of ground rents, and to perpetuate them in the large cities as a constant menace to public health, and even to the health of those same owners who draw such big profits from those very slums."*

Nevertheless, the situation constantly grows worse. Epidemics become more and more frequent. The sufferings of the people have become so great that the public authorities have felt obliged to intervene. In this connection, England may be cited as an example. Numerous sanitary housing laws have been enacted, for England particularly has realized the direction in which her efforts must be directed. Local authorities have rigorously adopted the policy of direct control. Moreover, they have been able to make use of land which, because of its doubtful rental possibilities, would otherwise have found no purchaser. Thus they have been able to give to some of the people good houses in healthy surroundings. This reveals the disadvantage of private ownership, which sees only one end—to make as much money as possible. The private owner will only build on land favorably situated, abandoning the rest and leaving vacant large areas whereon many people might be comfortably and hygienically housed. The example of England has not been followed elsewhere with the same care, particularly among us. Except for a few timid interventions by public authorities the field has been left free to private owners and speculators. Speculation in property is criminal. What tragedies are provoked!

Speculation Loans

Speculation is based primarily on large banking opera-

*The official report of the Reconstruction Commission of the State of New York contains the following statement: "This increased value that comes from the causes above mentioned is sufficient to deprive a large part of the workers of this state of the chance to get decent houses." See also the report of the Ontario Housing Commission.—*Editor.*

tions. Powerful financial organizations are created for the purpose of lending money to the humblest in order that he may buy land and construct a home. Nothing is more alluring to the worker than the prospect of some day owning his own home. The instinct of private property has been so well developed, propaganda has been so well directed to that end that the great mass of people is taken in. They contract for loans, they agree to annual repayments, which are further increased by requiring life insurance. The total payments are high, frequently too high, for they often exceed the means of the borrower. Then comes the bitter struggle to meet the payments. This is life devoid of all idealism. One only care haunts the debtor—to pay the installments when they are due. He is obliged to speculate even in the wages of his children, who are thus prematurely forced into industry. Their education is neglected, if not abandoned. Result—human beings, well endowed, cannot give to society what it exe cts from them, because of the lack of intellectual development. They are forced to earn, miserably, a little money that their parents may pay their contracted debts.

If illness falls upon these homes, the principal resources are consumed and then comes the impossibility of payment and the brutal foreclosure—vanishes the ardently cherished dream. There is no exaggeration in what we here say. We could if necessary, support our thesis with numberless examples. The unfortunate who find themselves in these extremities are nevertheless excusable. They have not pursued a sordid speculative gain. They are only the too numerous and too lamentable victims of a regime which leaves them only disillusion and misery. But there are others whose acts merit the light. They are those, who without scruple, have speculated in the most immoral sense of the word; who, out of property, so sacred in the eyes of certain ones, have made a game of chance and who, by their sharpness, have provoked the fictitious valuation of land.

It is in Germany that their action has best been studied. In that country, as elsewhere as well, one has played with land as one plays at the Bourse. Land changed hands several times within the same day. To avoid the expenses of such transactions, resort was had to mere verbal agreements. The operation was not authenticated until the final consummation, the first seller then deeding to the last buyer. One might cite the special case of a parcel which was sold five times within an hour, the price rising from 16,000 to 26,000 marks.

Loan credit facilities these so dubious transactions. Bankers advance money to people whom they know to be insolvent. It is upon their insolvency that they speculate. They appropriate, for a small price, the buildings erected on the land, as soon as their debtors fail to meet their obligations. Fictitious sales are made in order to force the belief in a fictitious value of land. Parcels of land of identical value, change hands, while the deeds record the double or triple of their real value. The simple are taken in. Without informing themselves as to the real value they buy land at an excessive value, thereby stimulating the disloyal act of the promoters and permitting an even more excessive profit. Societies which occupy themselves especially with such affairs give out false statements. They distribute dividends which are not warranted but which promote the belief in an astonishing prosperity. This belief is used to raise the price of land. This shameful business, this immoral gamble in a thing which legislation considers sacred must, after a time, provoke a terrible crisis. The victims will no longer be countable.

All of this permits us to look at the whole problem. The present regime, which leaves to the private owner the full and entire disposition of his land, constitutes a serious hindrance to the decent lodging of the laboring classes. The elementary regulations of hygiene and morality are unrecognized. By these acts, land owners have shown their moral inferiority. Does not the thirst for gold fetter the ideal of humanity?

Private ownership of land is also the cause of speculation, the immediate effect of which is the rise in fictitious land values. This provokes dishonest operations which are the cause of the ruin and despair of those who are so simple as to believe the lying propositions made to them. And this leads us to the conclusion that from the historic point of view as well as from that of the social and moral, it is desirable to make the maximum effort for the recapture, for the collectivity, of the ownership of land.

II. The Actual Situation.

A. The Lending Societies

In endeavoring to recapture the land for collective ownership, we must examine the problem of ways and means, at least in so far as concerns the dwellings of the people. Before hand, we must study what has been done in the present domain of political action affecting land and housing. The general effort has incontestably tended to develop, among workers, the spirit of private property. Legislation, except for the law of which we will speak later, accords a partial or total reduction in the important items of the cost of conveyance, stamps, registration, and advertising. It is certain that legislation has thus sought to encourage construction. And it has succeeded very well. Numerous societies have been formed for the object of contributing toward the building of workers' dwellings.

La Caisse d'Epargne, under special action, has facilitated the construction of numerous houses destined for the middle classes. We use this term with design, for it is incontestable that the workers have not benefited from measures which were really taken in their interest. We believe that we are able to affirm that those who enjoy small incomes, or salaries—all of those who belong to the middle classes, are those who have been most advantaged. Neither is it to be denied that workers have been able to build themselves homes, but is it necessary again to insist upon the privations which have thus been imposed upon them? Is it too daring to pretend that the great majority of workers have been unable to attain that end, lacking the first funds which are indispensable? For one point is certain—to buy land and build, either through the Caisse d' Epargne or through private sources, it is neccessary to have as a cover for the first advance, a part of the capital to invest in construction. Relatively few are the workers who can give to the banker the guarantee exacted! So sure is this that it is permissible to affirm that the law has

not by any means had the effect designed—to permit each to own his home. The same situation exists in private societies as on the Caisse d'Epargne, which offers a security difficult to find elsewhere.

It is nevertheless undebatable that

1. All societies, including the Caisse d'Epargne, are created for the purpose of earning profits.

2. All develop among the people a spirit which we consider to be deplorable, because anti-social from our point of view—the taste for private property.

3. They do not address themselves directly to the workers, for these are generally unable to meet the guarantee exacted by the capitalist.

4. They all proceed, contrary to the theory, historic and social, of the common ownership of land, which is essentially a collective possession.

B. The Role of the Communes in the Actual Situation—Public Land

Have public authorities ever acted differently? To make our thought concrete, let us see what has happened in Brussels.

The city of Brussels, as all the world knows, was considerably transformed during the second half of the last century. From a provincial town it has changed into the flourishing and splendid city that we all know. Disgusting quarters were demolished. They have given place to central boulevards, to the quarters of Van Artevelde, Notre-Dame-aux-Neiges, de la Regence, du Nord-Est, to the maritime installations, and others. The communal administration, owner of numerous building sites, offered them for sale. From the beginning, that which was considered as a godsend has been a speculation. Financial groups were formed. They became the holders of important blocks situated in the best quarters of the city. They also began the erection of buildings. Unfortunately for them, they hoped for a rapid transformation of the city. They forgot that a population does not change its habits in one day, and that it takes years for a provincial town to become a great commercial and industrial center. Their buildings were not well rented from the beginning, and their rents did not attain the sums hoped for. The builders were obliged, at the end, to acknowledge their failure. They could not pay their annual installments to the city which was obliged to foreclose. This was the origin of the present public property of the city of Brussels. This property, which ruined its owners, returns to-day an annual revenue of more than two millions francs, an amelioration due to the gradual transformation of the city. As for the other lands owned by the city and sold to individuals, they raise a very interesting question. The city sold them under two different plans. The first provided for payments by 66 annuities; the second, in 15 installments with simple interest. The land sold under annuity payments has returned to the communal treasury about 50 millions. Impartial calculations permit the statement that this land now represents a value of 177 millions. The land sold on installments produced for the city 27 millions. Its value to-day is 72 millions. The total sales effected since 1874 have produced an increment to the purchasers of 172 millions—enough with which to pay all the war costs of the city of Brussels.

It is remarked that these plus-values all went to individuals, although they were created by the community. Fortunes have thus been erected. We know, from personal knowledge, that more than 100 per cent profit was taken by the buyers within one year. Is this logical, and must we not seriously combat this urge toward a speculation which costs the community so dearly? It is necessary, and we repeat it, to retain for the profit of the community all the land taken through foreclosure (expropriation). Parcels not incorporated in streets should remain as collectively owned. It is not at all difficult to find a solution of the problem and we shall examine this later in studying the method of renting by the self-perpetuating (emphyteutic) lease.

C. Participation by the Communes in the Construction of Workers' Dwellings

How has the city of Brussels participated in the erection of workers' dwellings? Has that participation been sufficient? Our reply will be far from affirmative.

Originally, the city did not participate directly. A stock company called "Low-cost Dwellings for the Brussels district," in which the city of Brussels and its faubourgs were interested, was formed. The city of Brussels subscribed 300,000 francs, which returns an interest of 3 per cent. A very insufficient participation for a city of such density and in which there are still so many unhealthy districts and alleys.

During the last few years it seemed as though there was a more thorough understanding of our needs, but in spite of all, municipal participation has been very rudimentary. The two blocks in the rue Blaes and in the maritime quarter do not offer any desirable solution. Too few families can be lodged in them in conditions which approach comfort and cleanliness. And the 286 families sheltered in the rue Blaes and the 28 in the maritime quarter are a mere fragment in comparison with the thousands who still vegetate in slums at the ends of blind alleys where there is neither light nor air.

The workers' dwellings built by the city of Brussels in the rue Blaes cost as follows: land 2,589,424 francs; buildings, 2,561,419 francs, a total of 5,150,843. Those in the maritime quarter cost for land, 50,000 francs (valuation); buildings 281,058, a total of 331,058. The rents are not high, even though they include the amortization of the land cost. But it would have been possible to do a great deal better if we had boldly accepted the principle that a financial loss in such an undertaking would yield an enormous profit from the social point of view.

The real estate policy for the city of Brussels, as well as of the other cities in the country, may be summed up as follows:

1. Creation of new districts and the resale to individuals of the land not used for streets. This means the loss to the collectivity of all the increments which accrue in the future.

2. Wherever private ownership prevails there exists the commercial exploitation which we have chronicled. The city needs money and it is of course necessary to increase taxes. Result, the community which might play a serious part in regulating rentals, neglects this end and thus causes a considerable wrong to the community. Every-

where we find landlords raising rents in frightful proportions. Those landlords who try to combat this spirit of gain find themselves at a disadvantage for they cannot point to the example of one of the largest property owners—the city of Brussels.

3. Participation by means of groups created especially for the building and exploitation of workers' dwellings is insufficient.

4. Direct participation by the community is wholly neglected. The needs are now such that enormous sums must be spent in dwellings for the workers. Financial difficulties surely stand in the way, but perhaps there are also political reasons.

III. The Solution

A. State Participation. The Under-Capitalization of the National Society

We have now shown, from our point of view, how we should look at the real estate policy of the communes. Land, communal in its very essence, must conserve this character. The communes should heavily subsidise all efforts toward a solution of the housing crisis. The question is of vital importance and the urgent need of a solution is beyond all doubt.

We must cease evading and resolutely examine the conditions through which a solution may most easily be reached; we must find out how to take that indispensable action which the situation demands; we must establish, with all sincerity, our real housing needs.

Figures show that before the war 20,000 houses were built annually. Since the war building has ceased. When will it begin again? No activity in this direction is to be expected for a long time. Materials are lacking and their price is so high as to discourage even those most earnest to help. But, admitting that it might be possible within one year to resume normal building, we find ourselves faced with a deficit of 140,000 houses. The war caused the destruction of 150,000, so that we may say that the country lacks a total of about 300,000 houses. If we fix an average cost of 7,000 francs per house, which is not exaggerated in view of the cost of labor and materials, we find that a solution of the housing crisis calls for the sum of 2,000,000,000 francs. What are the public authorities doing in this emergency? Very little.

A law was passed October 11, 1919, creating the National Society of Low Cost Houses. The law was discussed in The Parliament of 1913-1914, but the war prevented its enaction. And here a brief analysis seems indispensable. This Society has for its object the creation of local or regional societies for building low-cost dwellings, and to these societies the central Society may make advances of money. Actually it is the same principle that applies with respect to State and local railways.

The Society functions under the stock company laws. Its capital is variable and may be subscribed for by the State, the provinces, or the local and regional societies agreed upon. The houses to be built are for workers of all kinds—in general for those whose means do not permit them to pay more than an average rent. The stock of the local or regional societies may also be subscribed for by the State, the provinces, the communes, charitable and other societies, and individuals. The State may, on demand of a local regional society, subscribe for one-fourth of the capital but no more. The subscribers may have their shares, over and above ten per cent of their holdings retired in 66 annual payments, bearing interest at 6 per cent.

The State grants 100,000,000 francs to the National Society, payable as required, and it is provided that money furnished in 1914 shall bear 3 per cent interest. No advance of which we know has been made. This leaves the future rate of interest undertermined. The law authorizes the Caisse d'Epargne to extend the operations permitted under the law of August 9, 1889, under which a considerable reduction in the cost of legal expenses is effected.

Under the law, local authorities notify the mayor of the existence of unhealthy dwellings. He is obliged to take action within a month, failing which, the local society may appeal to the king. If the limit of delay fixed by the king and the mayor is exceeded, the government may proceed to condemn the dwellings and turn them over to the local society to be replaced with new ones of low-cost. Health standards, inspection, and the prevention of speculation will be dealt with through regulations to be established by the National Society, which is under the control of the government, and which exercises control over the local and regional societies. In case of condemnations the government is to be advised by committees as to the conditions under which any land may be resold. The law also anticipates serious money losses.

Such are the general aspects of the new law. Will it solve the thorny problem of housing? We have shown that Belgium needs 300,000 houses which will cost, at a fair estimate, 2,000,000,000 francs. The State advances 100,000,000 francs, which at once indicates how insufficient is the aid it extends, while the subscriptions to be received from other sources will never cover the capital expenditure required. Direct State action is thus necessary. It seems idle further to insist on this point, but the public authorities ought not to view this as other than a social problem. Let us explain.

In our belief, it will be necessary to reckon upon material losses to the collectivity. But we must be made to see that these losses have only a relative importance in respect to the social end pursued and which must take precedence over any material question. The law provides that the money advanced by the State in 1914 shall bear interest at 3 per cent. Is it to be understood that future advances should pay a higher rate? This appears to be the belief, and if it is so, then a decision should be made. The problem, as we have said, is general and collective, and its social character must not be neglected. By assuring a decent home to workers we shall guarantee the present generation against certain bankruptcy and give to the future state healthy and morally educated citizens.

When such a purpose guides legislation we do not hesitate to affirm, and public opinion will support us, that financial sacrifices are justifiable and defensible. A material loss is always recoverable, but a social loss is not. The first involves only temporary privations, but the second has its repercussion on the future of the race.

We believe that the ideal solution would be for the public authorities to advance the necessary money without any charge at all, but such a proposal would be fiercely fought.

We prefer therefore to suggest a repayment of the money invested by means of 66 annuities including a 2 per cent interest charge. The point of departure thus being established—that is to say, we accept voluntarily the loss of a certain interest—we must examine the methods by which we shall be able to attain a prompt and radical solution. The National Society should cease all administrative functions. Its decisions must be reached rapidly. The spirit of initiative must be greatly encouraged. All the administrative red tape should be cut. Those who direct the affair should have knowledge of the important part they play and should so inspire others that all delays would be felt to be criminal if every effort had not been made to avoid them.

The law provides that the State shall advance money to the National Society, which apportions it among the local or regional societies according to their respective needs. It appears then that the government merely intends to conserve its customary public character. The dwellings would become the property of the societies after they have repaid the money lent. This will make for considerable progress if the dwellings remain the property of the societies for we would get rid of the private speculator. At the same time, we again insist upon the fact that logically and historically, the community should be the owner of these properties. Thus the collectivity will possess the means for effectively fighting the spirit of gain in the domain of houses and rents. Public authorities will not have to speculate or to demand the highest possible return, and healthy dwellings can be guaranteed to the population.

The law is permissive and not mandatory; the communes may participate financially in such operations. Is the law permissive only because it is believed that we shall find some public officials not interested in the question of the common welfare? Has it also been thought that guided by a spirit of vulgar politics, a compulsory law might be used to hamper the construction of workers' dwellings? It is sometimes very difficult to speak frankly in these matters, through fear of wounding others by touching the truth too closely. But, under the present circumstances, we consider it right to speak frankly. the general welfare takes precedence over any private interest. We admit, then the possibility that if the law was made compulsory, those officials who administered it might be inclined to use it in such a way as to drive away from their electorate such workmen as held political views opposed to their own. We must dismiss any such evil calculation, which is the reason why we do not hesitate to demand that the communes be obliged to participate financially. It is everywhere necessary that houses be built to meet local needs and the obligations we desire to see imposed on the communes would compel them to meet those needs. It would be sad indeed to have to believe that our difficulties arise from the apathy of some or the chicanery of others.

*B. Participation by the *Province*

After houses are built we must determine the conditions of their rental. We must very evidently seek means for keeping rents as low as possible. These houses will be built for the necessitous classes and the rents should be in proportion to the resources of their occupants. This aspect of the question must be examined in detail. Public authorities should participate on a large scale, it is true. But how shall they participate? We must adhere closely to the question of public utility, from which point of view the question can be treated precisely as we treat the erection of school buildings. We see no difference between the obligation to educate and the obligation to guarantee a home which insures the health and morality of the family.

In the construction of school buildings the State pays one-third and the province one-sixth. The same rule should apply in the building of houses, and we shall later show just how this may be done without hardship to either party. The provinces own the land necessary for the houses. We believe it logical to demand that they cede this land to the communes. This should be done without cost, or at least upon a very small payment based upon the social purpose pursued.

C. Participation of the Commune. Condemnation of Unhealthy Areas. Repairs. Allotment of Land by Perpetual Lease. Amortisation. Budget Provisions

If the before-mentioned participations are enforced the part to be played by the communes will be much simpler, although an arduous task will still confront them. They must act with the intention of becoming the owners of the houses to be built; also, they should arrange to construct the largest number possible. First of all, and certainly in the congested districts, their work should be directed toward the destruction of the unhealthy areas. Condemnation should begin and as soon as possible we should demolish the slums in blind alleys. The new construction should be planned with respect to hygiene and salubrity. The communes must assume the expense of streets, sewers, water, gas, and electricity. As for the land to be built upon, that should remain the property of the commune. It may be let to local groups under *perpetual leases of 66 years duration. For it, a merely nominal payment should be sufficient, in order that no claim for its possession might be made at the end of the lease renewal period.

Have the communes a right to lease land in this manner? To our mind, no doubt exists. And this system will not prevent the local groups from acting just as though they were the actual owners. The emphyteutic lease is legalized by the law of January 10, 1824, and this law recognizes that the lease gives the full and entire enjoyment of property belonging to another. It cannot exceed 99 years and the period of renewal must not exceed 27 years. The lessee thus enjoys the right to the property, but may do nothing which might diminish its value. The owner is not obliged to make any repairs, which must be made by the lessee, who may even sell his rights, hypothecate, or encumber them during the life of the lease. He has the right, at the expiry of his lease, to remove the improvements he has made, in the absence of stipulations to the contrary. If the lessee has injured the property he may

*From a Federal point of view, the Belgian provinces would coincide with the States. From a State point of view, they would coincide with counties.

*Note: The author refers to this form of lease as emphyteutic and no doubt as referring to emphytensis under the Roman code. Evidently, however, the Belgian law prescribes certain renewal conditions for the emphyteutic lease, as cited by the author later on.—*Editor.*

be compelled to forfeit his rights, or at least to restore the property to its previous condition and give guarantees for the future.

Thus the emphyteutic lease guarantees the rights of both parties. Under it the commune would remain the owner of the property, and as in our hypothesis, there would be no charge for the lease, one immediately sees the precious advantage which would result from this combination. The rent could be diminished in proportion to the amortization, if it were necessary to repay the cost of the land. The local group, in the meanwhile could act just as though it actually owned the property. The fact, in our hypothesis, that the houses should revert to the commune does not in any way weaken our argument. On the contrary, the law gives to the proprietor the right to prescribe the manner in which the property should be kept. It thus follows that the communes will have full power to assure the proper maintainence of a property which is to become their own later on. At the expiry of the leases they will possess an important property under their direct control.

It now remains to examine the methods by which the communes will be capable of assuring themselves of ownership at the expiry of the leases. In principle, the State ought to surrender the capital which it advances for the construction of popular houses. But the financial situation of the country is such that the problem seems difficult of a solution in this way under present conditions. Thus we must find another means of repaying the capital advanced. We must count however upon an advance by the State, in the beginning, of the funds necessary, to be repaid in 66 annuities. We again repeat that these advances should bear a minimum interest—2 per cent as we have said—and that the loss through interest should be a public charge. The problem then remains of determining the conditions under which repayment should be made.

In all great industrial undertakings it is necessary to provide for the financial and the industrial amortization. The financial amortization we would place at the charge of the communes, because they ought to justify their right to the property to be built. The industrial amortization we would charge to the occupants of the houses, which is just. If it is true that the present generation makes sacrifices for them, it is none the less true that they in their turn ought to accept sacrifices for the benefit of the future generations. They ought then to contribute to a fund which would permit the replacement of too old houses, the demolition of those built to-day, or the erection of still more houses to care for the increasing population. Therefore, we conceive the following conditions for these amortizations.

The commune should provide in its annual budget an item permitting the repayment of the 66 annuities, with 2 per cent interest. But we have also maintained that the State and the provinces should share in these projects as in the case of school building. On the side of receipts we would therefore enter one-third of the annuity as borne by the State, and one-sixth as borne by the province. It is also understood that the State and the province would share in the same proportion in the purchase of the land.

Concerning the industrial amortization, we may admit that a well built house should last a hundred years. Thus we may establish the industrial amortization at 1 per cent of the cost of construction. The local society will assume the collection of these annual payments during its tenure of 66 years, after which they will be collected by the commune. The accumulated sums will be placed at interest in the bank.

In fact, the interest on the construction capital will be assured by the communes by means of the 66 annuities above described. The occupants of the houses will therefore only have to bear the industrial amortization, the cost of repairs, insurance, administration, and loss in rentals. Say that these upkeep charges would amount to 1 per cent of the capital invested, and that it would be necessary to collect another 1.75 per cent for other expenses. Adding the 1 per cent for industrial amortization, and we have a total of *3.75 per cent on the capital invested in construction as the charge to the tenants. Thus it can be seen how low will be the rents to be asked in the future. The State will be reimbursed for the capital it has advanced; true, it will suffer a loss in interest on the capital, but we have already stated why we consider this loss necessary. The communes will be the owners, through annual payments which will not overload their budgets, of the buildings erected. The tenants will enjoy comfortable and salubrious homes at a minimum rental. The result, highly social, will certainly exercise a serious influence on house rentals. In fact, the whole population will benefit from these advantages made possible for the workers.

Application of the Above Principles

Let us take the town of Couillet, which in 1917, organized a competition for the building of a new quarter called "Les Sarts Communaux," and devoted to workers' houses. The competitors were to make a town plan showing the location of the houses. The ground measured about 40 hectares, (about 100 acres). The lots were to be from four to five thousand square feet in area. It was calculated that after deducting sufficient land for streets and squares there would be space for 500 houses. Granting that each house would cost an average of 7,000 francs, the total expense of construction would amount to 3,500,000 francs.

Let us now apply our principles.

The National Society created by the recent law advances to the local society the sum of 3,500,000 francs, which builds 500 houses on land leased to it by the commune under the emphyteutic lease. The commune, as the ultimate owner of the houses at the end of 66 years, writes into its budget an annual charge of 97,974.27 francs, which would permit it to pay back the 3,500,000 francs, at 2 per cent interest, in 66 years. As the same principle is here applied as in building schools, the State would participate to the extend of one-third, or 31,991.43 francs, and the province, in the proportion of one-sixth, or 15,995.71 francs. Thus the annual subsidies to the commune would amount to 47,987.14, which through a similar annual payment during 66 years, would become the owner of the 500 houses.

Concurrently with the building of this new quarter, the commune would have to bear the expense of construction for streets, squares, sewers, water, gas, and the usual public utilities. Street construction costs are naturally at the charge of the community and cannot be avoided. The town will therefore have every interest in the installation of a good

street system, for it is far-seeing economy thus to provide for the prosperity of the city. Such charges will be cancelled in a fairly short time for the financial resources of the town will be augmented by the taxes derived from the new houses, while public utilities are generally so profitable that their expense of installation will easily be repaid.

Consumption and prices are sufficient to permit the amortization of the capital in a fairly short time.

Administration

As for the local society, after construction, it must administer the property on the following principles:

1.00% for the industrial amortization.....	35.000 francs
1.00% for maintenance.....	35,000 francs
1.75% for overhead, insurance, unrentals...	61,250 francs
	131,250 francs

Thus the total rent of the 500 houses would be 131,250 francs, or 262.50 per house. Such would be the result of the operation. Can its social character be denied? Can it be maintained that it would not have a positive effect on the housing crisis?

Conclusion

Our program is this:

1. In the greatest possible measure the return of the land to the commune.

2. Workers houses to be built and owned by the communes, thus getting rid of private speculators.

3. Money to be advanced by the State at a minimum interest, the loss due to the low rate to be borne by the collectivity, for the problem is a social one.

4. Formation of a national and of local and regional Societies for Building Low-Cost Houses.

5. Leasing of land by the communes to the local and regional groups. The lease should have a duration equal to that of the life of the groups, 66 years, and the rental should be merely nominal in order to prevent any claim for possession by the lessor at the end of the lease renewal period.

6. Financial amortization of the capital invested in construction should be at the charge of the communes, who will provide in their budgets an amount sufficient to retire the capital in 66 anuity payments at 2 per cent.

7. The State subsidizes the communes up to one-third of this annuity and in the expense incurred in buying the land.

8. The provinces to contribute in the proportion of one-sixth.

9. The local groups will construct and manage the houses. They will guarantee the industrial amortization, rentals to be on a basis of 3.75 per cent of the entire construction capital including all costs.

10. In the future the commune, having accomplished the financial amortization, becomes the proprietor of the houses when the local groups have ceased to exist. It continues then the industrial amortization through its term of 100 years, and as owner, it administers the property by direct control.

Correspondence

More About the Bricklayers' Party

To the Editor of the Journal:

In the March issue there appeared in the columns of the JOURNAL a letter by Mr. Bright describing the opening of a class in plan reading conducted by Mr. Victor Abel for the members of Bricklayers' Union No. 1 in Philadelphia. The significance of this movement lay in the fact that the bricklayers themselves had felt the necessity for a larger understanding of their craft, and had become conscious of the fact that it no longer appealed as an occupation to their sons and the group of young men who would naturally be interested in it. The wiser men among this group, who were all journeymen, came to the conclusion among themselves that a class could be formed, which would show the men the possibilities of their craft, and that the best way to bring this about would be to familiarize themselves with drawings and specifications, in order that they might have an intelligent knowledge of what they were creating, and why they were creating it.

These men appealed to Mr. D. K. Boyd and through his efforts such a class was started, and on its opening night was addressed by several architects, as described in Mr. Bright's letter. Every Thursday night during the winter some two hundred of these men have come to these classes and have shown a remarkable interest in the work. Last week Professor Gumaer, of the University of Pennsylvania, told them the history of brickwork, illustrated with slides showing its possibilities from the Babylonian era down to the brickwork of the Georgian period in this country.

It was my pleasure to speak to these men not long ago on the occasion of the last meeting of the class for this season, and I was impressed with the enthusiasm with which they spoke of the brickwork which had been shown them by Professor Gumaer, and especially with their interest in the examples of very early brickwork used to create decorative surfaces by the use of sculptural forms. This interest encouraged me to explain to them that all creative work is a form of art, and that the motive for all great art lay in the love of work; and that this motive, which made the immortal masterpieces that they had seen in some of this brickwork, was the same motive which made masterpieces of men's lives and of all they undertook under its inspiration; and that the selfish greed that made so much work a worthless sham was the same motive that made men's lives equally worthless shams and their undertakings a series of failures; that the architecture they had seen in Professor Gumaer's slides was nothing more nor less than a record of the history of various peoples at various times, created subconsciously by just such men as themselves, animated, however, by the principles that made their guilds or crafts the real outlet for the best that was in them.

These men, as stated above, were all journeymen bricklayers, exceedingly diffident and unwilling to express their personal aspirations, but it was obvious in talking to them that here is a great field in which the architects of this country may get in direct touch with the men whose

workmanship must always reflect the motive behind it, and I am convinced that, until that motive is guided in the right direction, we can hardly look for great things in the building art. I would therefore urgently recommend to the various Chapters that some such classes be started wherever possible, with the hope of bringing the architect more directly in contact with the real workmen actually engaged in executing his work.

The following quotation from Ecclesiasticus, for which I am indebted to Mr. C. R. Ashby's book entitled "Where the Great City Stands," would seem to imply that a consideration of the importance of the artificer and the motives underlying his work, is not an entirely new thought.

"So is every artificer and work master that passeth his time by night as by day * * * All these put their trust in their hands; and each becometh wise in his own work. Without them shall no city be inhabited and men shall not sojourn nor walk up and down therein. They shall not be sought for in the council of the people * * * But they shall maintain the fabric of the world; and in the handiwork of their craft is their prayer."

I happened to read this book last night and find it a very illuminating post-war document although written in 1917. It is a book after my own heart in that it does not quarrel with any system or systems, but analyzes them all seeking the motives behind them as well as the influence upon the motives by such complete changes in the methods of production as the introduction of machinery during the nineteenth century. Although written during the war, he frankly admits the war is a clear red line dividing the past from the future and points the way to the right point of view in all the arts and crafts for the future.

—M. B. MEDARY, JR.

Institute Business

New Members Elected

Name	*Chapter*
FRED R. HOPKINS	Buffalo
DAVID COCHRAN MYERS	Central New York
FRANK R. HAPP	Georgia
ERNEST DANIEL IVEY	Georgia
ARTHUR R. DEAN	Illlnois
WALTER R. FAUGHT	Kansas City
CHANDLER C. COHAGEN	Minnesota
ANGUS V. McIVER	Minnesota
FRED FIELDING WILLSON	Minnesota
CHARLES CARSTEN PLATT	New York
CLARENCE WILSON BRAZER	Philadelphia
G. EDWIN BRUMBAUGH	Philadelphia
WILLIAM M. CAMPBELL	Philadelphia
CHRISTOPHER CLIFT	Philadelphia
FREDERICK A. MUHLENBERG	Philadelphia
HOWELL LEWIS SHAY	Philadelphia
REGINALD JEFFREY WADSWORTH	Philadelphia
ERNEST HOWARD YARDLEY	Philadelphia
HARWOOD HEWITT	Southern California
ROSS GORDON MONTGOMERY	Southern California
ALFRED C. FINN	Texas
CHARLES GREGG	Washington, D. C.
ALBERT L. HARRIS	Washington, D. C.
FREDERICK VERNON MURPHY	Washington, D. C.

News Notes

THE appointment of John P. B. Sinkler, Fellow of the Institute and recently President of the Philadelphia Chapter, as city architect of Philadelphia has been announced by Mayor Moore of that city. Mr. Sinkler's willingness to give up his private practice in order to accept a position of public service was warmly commended by the Mayor in making the appointment, which he did upon recommendation of the Philadelphia Chapter.

MR. GEORGE BAIN CUMMINGS announces his entrance into partnership in the firm of Lacey, Schenck & Cummings, of Binghampton, N. Y.

AT THE April meeting of the San Francisco Chapter it was announced that Mr. Arthur Brown had been elected to the Institute of France.

ACCORDING to press reports the British Government is considering an increase of the subsidy granted to private builders of houses. The result of the present grant of 150 pounds per house has not stimulated building as much as was hoped. Barely 1200 houses have so far been put under way since the subsidy came into operation.

THE citizens of Manchester, England, are asked to contribute £10,000 to a fund for the restoration, furnishing and maintenance of Sulgrave Manor, in Northamptonshire the ancestral home of George Washington. Altogether £25,000 is needed; of this sum £10,000 will be given by the Sulgrave Institute of America.

The project was put forward by the Anglo-American Society early in the year, and it was given strong support in the inaugural meetings held in Manchester. Lord Burnham held that the proposal was for a graceful act which would manifest in tangible form the spirit of amity existing between the United States and ourselves.

AT THE recent Institute Convention it was decided to form a permanent organization to be known as the Council of Architectural Registration Boards with Professor Emil Lorch of the Michigan State Board as President and Emory Stanford Hall, President of the Illinois State Board as Secretary. The primary purpose of the organization is to bring together the experience of those actually engaged in the work of registration, to make a comparative study of all existing laws and to work out a plan to facilitate reciprocity between states having such laws. Mr. W. P. Bannister of the New York State Board and Mr. M. I. Kast of Pennsylvania together with Mr. Richard E. Schmidt, Chairman of the Institute Committee on Registration Laws are to make a digest of the various laws and report to a meeting of the Association to be held at some central point in October or November of this year. Another meeting will be held at the time of the next Institute Convention.

All those interested in this work should write Mr. Hall, Secretary, 64 East Van Buren Street, Chicago, Illinois.

TO WORK with the Institute Committee on Foreign Building Cooperation, there has been created a similar committee in France, as follows:

M. M. Girault, Membre de l'Institut, Président de la Fédération des Architectes de France.

Cordonnier, Membre de l'Institut, Président de la Société Centrale.

Deglane, Membre de l'Institut.

Louvet, Président des Diplômés.

Hermant, Ancien Président des Diplômés, et Architecte en Chef de la Ville de Paris.

Berard, Président de la Coopérative d'Architectes Diplômés pour les Régions Libérées.

Greber, Architecte Diplomé par le Gouvernement.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY W. KERN, *Assistant*

In connection with professional societies, organized bodies, and the following committees of the Institute:
BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

Calcium Chloride and Vitri-Flux.

The Granitex Company of New York City has been advertising extensively a material called "Vitri-Flux." The claims made for "Vitri-Flux" and the character of the advertising employed are calculated to arouse curiosity in a technical mind. An investigation, instituted by the Structural Service Department has produced some data which may be helpful to the architect.

(1) CLAIM MADE FOR VITRI-FLUX: That it is a carefully compounded combination of chemicals in liquid form, practically colorless and of neutral reaction.

Investigation of Claim No. 1: A sample of Vitri-Flux was obtained from the Granitex Company and submitted to Dr. Parker C. McIlhiney, A. M., Ph. D., Consulting Chemist for quantitative analysis.

The following is Dr. McIlhiney's report:

"I have examined the sample of 'Vitri-Flux' received from you on April 9 for analysis, and find in it:

	Per cent
Calcium	10.61
Chlorine (as chloride)	18.40
Sulphuric Acid (as SO_3)	0.05
Oxides of Iron and Aluminum (in solution)	0.08
Alkalies (calculated as Sodium Chloride)	0.04
Oxides of Iron and Aluminium (in suspended matter)	0.09
Specific Gravity of Solution (equivalent to 31.7 Be.)	1.279

"The 'Vitri-Flux' appears to be substantially a solution of ordinary calcium chloride in water, containing 29.4 per cent of calcium chloride, and to contain nothing else except such traces of impurities as would naturally be expected in such a product."

(Signed) PARKER C. MCILHINEY.

Comparison with Calcium Chloride: Calcium chloride is a commercially manufactured material and is readily obtainable. It is a white, odorless salt that for many years was a waste product of various chemical industries, especially in connection with the manufacture of bromine and salt. Calcium chloride now has become a regular article of commerce and is used for many purposes in the industrial arts. It dissolves readily when exposed to the air and in water. It is largely used in solution and in place of common salt brine for refrigeration and ice making and, in its granulated form for laying the dust on roads and tennis courts. Commercial calcium chloride is usually marketed as 75 per cent calcium chloride. That is, each 100 lbs. contains approximately 25 lbs. of water and 75 lbs. of the chloride.

Calcium chloride is commercially manufactured in two forms, solid and granulated. The chemical composition of each of these is the same. Owing to greater manufacturing costs the granulated is the more expensive. About five pounds of commercial 75 per cent calcium chloride dissolved in one gallon of water will produce a solution of practically the same chemical composition as "Vitri-Flux." No special appliances or treatments are required to produce such a solution.

The Semet-Solvay Company, one of the largest manufacturers of calcium chloride, publish the following analysis of their 75 per cent Calcium Chloride:

Calcium Chloride, $CaCl_2$	73.59
Sodium Chloride (Salt) NaCl	1.45
Insoluble in Water	.07
Water	24.89
Total	100.00

(2) CLAIM MADE FOR VITRI-FLUX: That Vitri-Flux comes in steel drums—at a list price (subject to quantity discounts) of $1.30 per gallon. That it should be mixed in the proportion of one gallon of Vitri-Flux to each ten gallons of water used.

Comparison with Calcium Chloride. Calcium chloride is shipped in air-tight steel drums. The solid, or fused, is usually packed 610 lbs. net to a drum, and the granulated 350 to 375 lbs. net. These are the generally accepted weights, but as some manufacturers put out a different size drum the amount of calcium required should be estimated in pounds, not drums.

The Semet-Solvay Company states that the average price (April, 1920) for calcium chloride per single drum in the warehouse is $1.50 per 100 lbs. for the solid and $2.00 for the granulated. That in car load lots these prices would be less.

The cost per gallon for the raw material required to make a solution of practically the identical chemical composition as "Vitri-Flux" is represented by the cost of approximately five pounds of calcium chloride at from one and one-half to two cents per pound, or about eight to ten cents per gallon, plus the cost of a gallon of water.

The addition of five pounds of commercial 75 per cent calcium chloride to eleven gallons of water will produce, according to the analysis, a solution of practically the same chemical composition as the addition of one gallon of "Vitri-Flux" to ten gallons of water.

(3) CLAIM MADE FOR VITRI-FLUX: That the cost of Vitri-Flux is more than met by the saving in construction cost made possible by its use.

Comparison of Cost of Vitri-Flux and Calcium Chloride, per cubic yard of Concrete: The quantity of water per cubic yard of concrete varies according to the consistency of the mix, proportions and kind of materials employed. For an average mix, however, from 55 to 65 gallons of water is used per cubic yard of concrete. According to the recommendations of the Granitex Company that one gallon of Vitri-Flux be added to each ten gallons of water, from 5 to 6 gallons of this material would be required per cubic yard of concrete. The cost of 5 gallons of Vitri-Flux is stated

to be $6.50 (subject to quantity discount). It is thus claimed that a saving of more than $6.50, less the quantity discount, per cubic yard is made possible in construction cost through its use.

Twenty-five pounds of commerical 75 per cent calcium chloride, at a cost of from thirty-eight to fifty cents will produce, if added to the water used in mixing each cubic yard of concrete, a concrete of practically the same chemical analysis as Vitri-Flux.

(4) CLAIM MADE FOR VITRI-FLUX: That Vitri-Flux has been tested under actual working conditions. That there are plenty of examples of Vitri-Flux construction years old.

Investigation of this Claim: In reply to an inquiry on these points by a member of the Structural Service Committee the following replies were received:

"Referring to that portion of your letter in which you ask us to furnish you with a list of buildings where our material has been used, we have to advise that in view of the fact that our material has only been on the market for a very short time, we are somewhat limited in our ability to furnish this particular information. It is a fact, however, that Vitri-Flux was used in the construction of a concrete road in Jacksonville, Florida, about three years ago, which we understand has given excellent satisfaction. The Westinghouse-Church-Kerr Company has used the material quite extensively and we believe it would be advisable for you to communicate with their Mr. Chapman who would be able to give you information that will be of real interest."

Mr. Chapman was communicated with and the following reply was received:

"Replying to your letter of the 31st ultimo relative to the use of Vitri-Flux, would say that we have used this material on concrete floor surfaces with very satisfactory results up to the present time. We have not had these floors in long service but the very quick hardening and the very easy finishing, together with a surface that seems to be unscratchable, indicates that the service will be all that could be expected of it. Our foremen report that they are quite pleased with the results.

The writer has also used it to waterproof his cellar, which leaked very badly during the recent spring storms. The waterproofing was accomplished by a cement-sand mortar coat on the inside of the wall with average thickness of not over ¼ inch. This mortar was mixed with a 10 per cent solution of Vitri-Flux and the effect has been entirely satisfactory. The writer's experi enc with this material so far has been sufficiently satisfactory to induce him to become financially interested in the Granitex Company."

(Signed) CLOYD M. CHAPMAN.

No other information then is contained in the above letters was received.

(5) CLAIM MADE FOR VITRI-FLUX: That it has been investigated and indorsed by the Investigating Committee of Architects and Engineers of New York City.

Investigation of this Claim: In reply to a request for information on this claim we are in receipt of the following letter:

"We have your inquiry of the 14th inst.

"Through an error on the part of their advertising agency a partial report, which we had given them for a special purpose, was issued in circular form, with an entirely misleading caption."

"Very truly yours,

"INVESTIGATING COMMITTEES OF ARCHITECTS AND ENGINEERS,
(Signed) "R. M. HOOKER, *Secretary.*"

(6) CLAIM MADE FOR VITRI-FLUX: That it lowers the freezing point of concrete about 6 degrees Fahrenheit.

Comparison with Calcium Chloride: The addition of calcium chloride to water lowers the freezing point. The degree to which the freezing point is lowered depends on the amount of the chloride used.

The Semet-Solvay Company publish the following table on the freezing point of various calcium chloride solutions:

Lbs. 75% Solvay Cal. Chl. per Gal.	*Freezing Point Degrees Fahrenheit.*
.27	29.48
.36	28.58
.45	27.68
.55	26.60
.64	25.52
.74	24.26
.92	19.76
1.46	18.0
1.83	12.5
2.20	6.5
2.59	− 2.0
2.99	−12.5
3.38	−23.5
3.75	−36.5

It will be seen that about 0.6 of a pound of calcium chloride to the gallon of water will lower the freezing point about six degrees. This is approximately the amount of calcium chloride per gallon in a one to ten solution of Vitri-Flux. It would appear from the analysis that the Granitex Company is justified in its claim that Vitri-Flux lowers the freezing point of concrete about six degrees.

(7) CLAIM MADE FOR VITRI-FLUX: That it has no detrimental or objectionable effect on portland cement or concrete. That it permanently strengthens all concrete mixtures. That it increases the compressive strength 50 per cent to 60 per cent in standard mixtures and triples the strength of the leanest mixtures. That in a series of tests, with 28 day old concrete it increased the compressive strength 58 per cent. That it materially accelerates setting and hardening. That in construction work its use is particularly demanded where great wear or other difficult conditions are to be met and that for roads and floors its use is indispensable.

Comparison with Calcium Chloride: The Engineering News-Record, March 13, 1919, published the following:

"As the result of some experiments made by the Bureau of Standards to develop a method to accelerate the rate at which concrete increases in strength with age, it was found that the addition of small quantities of calcium chloride to the mixing water gave the most effective results. A comprehensive series of tests was inaugurated to determine further the amount of acceleration in the strength of concrete obtained in this manner, and to study the effect of such additions on the durability of concrete and the effect of the addition of this salt on the liability to corrosion of iron or steel embedded in mortar or concrete.

The results to date indicate that in concrete at the age of two or three days the addition of calcium chloride up to 10 per cent by weight of water to the mixing water results in an increase in strength, over similar concrete gaged with plain water, of from 30 to 100 per cent, the best results being obtained when the gaging water contains from 4 to 6 per cent of calcium chloride.

Compressive strength tests of concretes gaged with water containing up to 10 per cent calcium chloride, at the age of one year, give no indication that the addition of this salt has had deleterious effect on the durability of the concrete.

Corrosion tests that have been completed indicate that the presence of calcium chloride, although the amount used is relatively small, in mortar slabs exposed to the weather, causes appreciable corrosion of the metal within a year. This appears to indicate that calcium chloride should not be used in stuccos, and warns against the unrestricted use of this salt, in reinforced concrete exposed to weather or water."

The Engineering News-Record also published, June 26, 1919, an article by Mr. H. Eltinge Breed, Consulting Highway Engineer, New York City, from which we quote:

"A series of tests were completed to determine the advantages in use of Calcium Chloride solution to hasten the setting of cement concrete.

Laboratory test samples were prepared and tested at ages varying from one day to one year. . . . They indicate the use of a 4 per cent solution of calcium chloride as mixing water for cement concrete increases the strength attained at all ages up to one year.

Beyond that it is still problematical but what evidence we have indicates certainly no deterioration, and, a probable, but slower gain. The maximum increase appears to be about 20 per cent at the age of one month."

Note: The diagram illustrating the article indicates a very slight increase in compressive strength at the end of one year.

It would appear from these two articles that a solution of the chemical analysis of Vitri-Flux would increase the strength of concrete at the end of twenty-eight days as claimed but that at the end of one year that very little additional strength is gained by the use of calcium chloride. It appears also that solutions containing calcium chloride are not regarded as safe to use for stucco on metal lath or for reinforced concrete exposed to moisture.

The New Standard Construction Classification

Adopted by The American Institute of Architects

Prepared by the Committee on Structural Service of The American Institute of Architects

1. Preparation of Site.
2. Excavation.
3. Masonry Materials.
4. Concrete and Concrete Work.
5. Brick Work.
6. Foundations.
7. Waterproofing and Dampproofing.
8. Stone Work.
9. Architectural Terra Cotta.
10. Partitions, Furring, and Fireproofing.
11. Paving.
12. Roofing, Sheet Metal, and Skylights.
13. Structural Steel and Iron.
14. Miscellaneous Steel and Iron.
15. Ornamental Metal Work.
16. Fire Resisting Doors and Windows.
17. Special Doors and Windows.
18. Vaults and Safes.
19. Carpentry.
20. Furring and Lathing.
21. Plastering.
22. Marble and Slate.
23. Tile and Tile Substitutes.
24. Plastic Floors.
25. Painting and Finishing.
26. Glass and Glazing.
27. Hardware.
28. Furnishings.
29. Plumbing.
30. Heating and Ventilating.
31. Electrical Work.
32. Refrigeration.
33. Elevators.
34. Power Plant.
35. Equipments, Industrial and Other.
36. Construction Plant.
37. Models.
38. Landscape.
39. Acoustics.
40. Regulations.

1. PREPARATION OF SITE.

1*a*. Demolition of Structures.
- 1*a*1. Ownership of Materials.
- 1*a*2. Storage of Salved Materials.
- 1*a*3. Sprinkling.

1*b*. Protection of Trees, Shrubs and Sidewalks.
1*c*. Top Soil Removal and Storage.

2. EXCAVATION.

2*a*. Tests of Subsoil.
- 2*a*1. Pits.
- 2*a*2. Borings.
  - 2*a*21. Dry.
  - 2*a*22. Wash.
- 2*a*3. Loading.
- 2*a*4. Test Piles.

2*b*. Excavated Material, Disposal of.
2*c*. Blasting.
2*d*. Open Caisson.
2*e*. Shoring.
2*f*. Sheet Piling.
- 2*f*1. Wood.
- 2*f*2. Metal.

2*g*. Rock Dressing.
2*h*. Tunneling.
2*i*. Underpinning.
2*j*. Back-Filling.
2*k*. Dredging.

3. MASONRY MATERIALS.

3*a*. Cement.
- 3*a*1. Portland.
- 3*a*2. White Portland.
- 3*a*3. Non-Staining.
- 3*a*4. Natural.
- 3*a*5. Keenes.

3*b*. Integral Compounds.
- 3*b*1. Set Accelerating.
- 3*b*2. Hardening and Dust Proofing.
- 3*b*3. Acidproofing.
- 3*b*4. Waterproofing.

3. MASONRY MATERIALS—Continued.

3c. Lime.
- 3c1. Lump.
- 3c2. Hydraulic.
- 3c3. Hydrated.
- 3c4. Specials.

3d. Sand.
- 3d1. Grading.
- 3d2. Testers.

3e. Coarse Aggregates.
- 3e1. Crushed Stone.
- 3e2. Gravel.
- 3e3. Clinker.
- 3e4. Slag.

3f. Water.

3g. Brick.
- 3g1. Common.
- 3g2. Face.
  - 3g21. Vitreous.
  - 3g22. Semi-Vitreous.
  - 3g23. Rough Texture.
  - 3g24. Glazed.
  - 3g25. Enameled.
  - 3g26. Concrete.
- 3g3. Sand-Lime.
- 3g4. Paving.
  - 3g41. Shale and Clay.
  - 3g42. Cork.
  - 3g43. Composition.
- 3g5. Hollow.
- 3g6. Refractory.

3h. Gypsum and Gypsum Blocks.

3i. Structural Terra Cotta.
- 3i1. Floor Arches.
- 3i2. Exterior Walls.
- 3i3. Partitions.
- 3i4. Fireproofing.

3j. Rubble Stone.

3k. Concrete Blocks.

3l. Mortar Colors.

3m. Mortar.
- 3m1. Cement.
  - 3m11. Lime Gauging.
- 3m2. Lime.
  - 3m21. Cement Gauging.
- 3m3. Lime-Cement.
- 3m4. Non-Staining.
- 3m5. Gypsum.
- 3m6. Mixing.

4. CONCRETE AND CONCRETE WORK.

4a. Concrete. (Mixes.)
- 4a1. Mass.
- 4a2. Reinforced.
- 4a3. Floor fills.
- 4a4. Floor Topping.
- 4a5. Mixing. (For added compounds, see 3b.)
  - 4a51. Machine.
  - 4a52. Hand.
  - 4a53. Measuring.

4b. Concrete Work.
- 4b1. Forms.
  - 4b11. Wood.
  - 4b12. Metal.
  - 4b13. Others.
- 4b2. Placing. (For handling plant, see 36a.)
- 4b3. Reinforcing Systems and Reinforcements.
- 4b4. Expansion Joints
- 4b5. Inserts and Accessories.
- 4b6. Pre-Cast.
- 4b7. Fireproofing.
- 4b8. Surfacing.
  - 4b81. In the Form.
  - 4b82. Walls.
  - 4b83. Floors.
  - 4b84. Paving.

4. CONCRETE AND CONCRETE WORK—Continued.

- 4b9. Tanks.

4c. Physical Properties Tests

5. BRICK WORK.

5a. Laying Methods.
- 5a1. Bonds.
- 5a2. Joints and Pointing.
- 5a3. Cleaning.

5b. Backing for Stone and Terra Cotta.

5c. Fireproofing.

5d. Fire-Stopping.

5e. Arches.

5f. Reinforcements.

5g. Carving. (For industrial stacks, see 3507.)

5h. Chimneys.
- 5h1. Flue Linings.
- 5h2. Tile Thimbles.
- 5h3. Chimney Pots.
- 5h4. Fireplace Design.
- 5h5. Fireplace Linings, Brick.
- 5h6. Trimmer Arches and Hearths. (For iron ash dumps, linings, clean-outs, throats, and dampers, see 14e.)

6. FOUNDATIONS.

6a. Piling.
- 6a1. Wood.
- 6a2. Concrete.

6b. Caissons, Air.

6c. Grillages.

6d. Sub-Drainage.

6e. Retaining Walls.

7. WATERPROOFING AND DAMPPROOFING.

7a. Waterproofing. (Against static head.)
- 7a1. Membranous.
- 7a2. Integral.
- 7a3. Plaster Coat. (For compounds used in 7a2 and 7a3, see 3b.)

7b. Damp Proofing. (No static head.)
- 7b1. Waterproofed Mortar.
- 7b2. Coatings.
  - 7b21. Exterior Surfaces.
  - 7b22. Interior Surfaces.

8. STONE WORK.

8a. Rubble.

8b. Cut.

8c. Artificial.

8d. Cutting and Surfacing.
- 8d1. Carving.
- 8d2. Models.

8e. Setting. (Mortar, see 3m.)
- 8e1. Clamps and Anchors.
- 8e2. Stain-Proofing.
  - 8e21. Painting.
  - 8e22. Parging.

9. ARCHITECTURAL TERRA COTTA.

9a. Material.
- 9a1. Manufacture.
- 9a2. Finishes.
- 9a3. Trial Setting.

9b. Setting. (For mortar, see 3m.)
- 9b1. Anchoring.
- 9b2. Backing.

10. PARTITIONS, FURRING, AND FIREPROOFING.

10a. Structural Terra Cotta.

10b. Gypsum Block.

10c. Concrete.

10d. Reinforcements. (For solid plaster partitions, see 20 and 21.)

10e. Metal.

THE NEW STANDARD CONSTRUCTION CLASSIFICATION

11. PAVING.

11a. Concrete.
- 11a1. Templates and Screeds.
- 11a2. Expansion Joints.
- 11a3. Bituminous Carpets.

11b. Brick.
11c. Stone Block.
11d. Asphalt.
11e. Composition Block.
11f. Wood Block.
11g. Cork Brick.
11h. Macadam.
- 11h1. Bituminous Binders.

11i. Gutters and Curbs. (For curb guards, gutter bridges, catch basins, and manhole fittings, see 14.)
11j. Vault Lights.

12. ROOFING, SHEET METAL, AND SKYLIGHTS.

12a. Decks or Flat Roofs.
- 12a1. Bituminous, Built-Up.
  - 12a11. Tile Surfacing.
  - 12a12. Slate Surfacing.
  - 12a13. Gravel or Slag.
- 12a2. Bituminous, Prepared.
- 12a3. Canvas.
- 12a4. Sheet Metal.

12b. Pitched Roofs.
- 12b1. Bituminous, Prepared.
  - 12b11. Roll.
  - 12b12. Shingles.
- 12b2. Slate.
- 12b3. Tile, Clay.
- 12b4. Tile, Concrete.
- 12b5. Asbestos Shingles.
- 12b6. Metal Shingles and Tile.
- 12b7. Sheet Metal. (For wood shingles, see 19d.)

12c. Flashings.
- 12c1. Metal.
- 12c2. Bituminous.
- 12c3. Plastic.

12d. Gutters, Leaders and Accessories.
12e. Ventilators.
12f. Pressed Sheet Metal Columns.
12g. Sheet Metal Ceiling.
12h. Skylights.
- 12h1. Puttyless Type.
- 12h2. Putty Glazed.
- 12h3. Glass.
- 12h4. Glazing.

12i. Painting.

13. STRUCTURAL STEEL AND IRON.

13a. Design and Shapes.
13b. Fabrication.
13c. Erection.
13d. Painting and Protection.
- 13d1. Cleaning.
- 13d2. Shop Painting.
- 13d3. Field Painting.

13e. Inspection and Tests.
13f. Steel Lumber.
13g. Physical Properties and Tests.

14. MISCELLANEOUS STEEL AND IRON.

14a. Sidewalk Fittings.
- 14a1. Area Gratings.
- 14a2. Sidewalk Door and Frames.
- 14a3. Coal Hole Covers, Frames and Doors.
- 14a4. Curb Guards.
- 14a5. Gutter Covers and Bridges.

14b. Door and Window Openings.
- 14b1. Wheel Guards.
- 14b2. Bucks, Structural Shapes.
- 14b3. Lintels, C. I.
- 14b4. Gratings.
- 14b5. Sheet and Plate Doors and Shutters.

14. MISCELLANEOUS STEEL AND IRON—Continued.

14c. Fire Escapes and Balconies.
14d. Platforms, Ladders and Railings.
14e. Fireplace and Chimney Accessories.
- 14e1. Ash Dumps.
- 14e2. Throats and Dampers.
- 14e3. Fireplace Linings.
- 14e4. Clean-out Doors and Frames.

14f. Flag Poles, Steel.
- 14f1. Poles.
- 14f2. Steps and Supports.
- 14f3. Painting and Finishing. (For lightning protection, see 31j.)

14g. Pipe Columns.
14h. Wall Bearing Plates.
14i. Metal Smokestacks.
14j. Portable Steel Buildings.
14k. Hangers and Anchors.
14l. Garbage Receptacles.

15. ORNAMENTAL METAL WORK.

15a. Bronze. (Compositions and finishes.)
- 15a1. Architectural.
- 15a2. Sculptural.

15b. Brass.
15c. Cast Iron.
15d. Wrought Iron.

16. FIRE-RESISTING DOORS AND WINDOWS.

16a. Doors, Frames and Appurtenances.
- 16a1. Hollow Steel.
- 16a2. Metal Covered Wood.
- 16a3. Tin Clad.
- 16a4. Underwriters' Standards.
- 16a5. Combined Bucks and Trims.
- 16a6. Picture and Other Moulds.

16b. Windows and Fittings.
- 16b1. Metal Covered Wood.
- 16b2. Hollow Metal.
- 16b3. Heavy Gauge Solid.
- 16b4. Solid, Rolled and Drawn Shapes.
- 16b5. Underwriters' Standards.

16c. Fire Shutters.

17. SPECIAL DOORS AND WINDOWS.

(Note: Special features are generally confined to the hardware used.)

17a. Doors.
- 17a1. Revolving.
- 17a2. Counterbalanced.
- 17a3. Canopy.
- 17a4. Folding.

17b. Windows.

18. VAULTS AND SAFES.

18a. Built-In Vaults.
18b. Fireproof Vestibules.
18c. Portable Safes.
18d. Chests.
18e. Protective Systems.

19. CARPENTRY.

19a. Lumber.
- 19a1. Classification.
- 19a2. Grading Rules.
- 19a3. Treatments.
  - 19a31. Rot Prevention.
  - 19a32. Curing and Drying.
  - 19a33. Fireproofing.

19b. Framing.
19c. Docks and Bulkheads. (For piling, see 6a.)
19d. Roof and Wall Coverings.
- 19d1. Shingles.
- 19d2. Siding.

19. CARPENTRY—Continued.

19e. Millwork.
- 19e1. Windows.
  - 19e11. Weather Strips.
  - 19e12. Caulking.
- 19e2. Doors.
- 19e3. Shutters. (For Venetian Blinds, see 28g.)
- 19e4. Moulds and Trim.
- 19e5. Stairs.
- 19e6. Veneering.
  - 19e61. Glues and Glueing.
- 19e7. Partitions and Booths.
  - 19e71. Sliding, Rolling, Folding.
- 19e8. Columns.
- 19e9. Flooring.
  - 19e91. Grading Rules.

19f. Wall Boards. (For Plaster Board, see 21d.)
19g. Building and Sheathing Papers, Felts, Quilts.
19h. Fly Screens and Screen Doors.
19i. Flag Poles.
19j. Portable and Pre-Cut Buildings.
19k. Grounds and Nailing Plugs.
19l. Combination Sheathing and Lath.

20. FURRING AND LATHING.

20a. Furring.
20b. Lathing. (For Plaster Board, see 21d.) (For Combination Sheathing and Lath, see 19l.)
- 20b1. Metal.
  - 20b11. Wire.
  - 20b12. Expanded Metal.
  - 20b13. Self-Furring.
  - 20b14. Solid Plaster Partitions.
  - 20b15. Composite.
- 20b2. Wood.

20c. Corner Beads.

21. PLASTERING.

21a. Plain.
21b. Ornamental.
- 21b1. Artificial Stone.
  - 21b11. Caen Stone.
- 21b2. Artificial Marble.
- 21b3. Compo Ornament.
- 21b4. Standard Moulds.

21c. Keenes Cement.
21d. Plaster Boards.
21e. Stucco.
- 21e1. Cement.
- 21e2. Magnesite.
- 21e3. Lime.

21f. Scrafitto.
21g. Bonding and Stain-Proofing Coatings.
21h. Acoustical Properties.

22. MARBLE AND SLATE.

22a. Interior Marble.
22b. Interior Slate.
22c. Alberene Stone.
22d. Marble Mosaic.
22e. Terrazzo.
22f. Structural Glass. (For slate blackboards, see 35b.)

23. TILE AND TILE SUBSTITUTES.

23a. Vitreous and Semi-Vitreous.
- 23a1. Wall.
- 23a2. Floor.

23b. Glazed and Enameled.
23c. Faience.
23d. Promenade.
23e. Cork.
23f. Rubber.
23g. Composition.
23h. Acoustical.

24. PLASTIC FLOORS.

24a. Magnesite.
24b. Mastic.
- 24b1. Heavy Service.
- 24b2. Light Service.

25. PAINTING AND FINISHING.

25a. Raw Materials
25b. Wood.
- 25b1. Exterior.
- 25b2. Interior.

25c. Stucco.
25d. Plaster.
25e. Masonry.
- 25e1. Brick.
- 25e2. Concrete.
- 25e3. Concrete Floors.

25f. Metal. (For Roofs, see 12i).
25g. Canvas and Fabrics.
25h. Decorative.
25i. Lettering.
25j. Reflecting Surfaces.

26. GLASS AND GLAZING.

26a. Sheet Glass.
26b. Plate Glass.
26c. Wired Glass.
26d. Prismatic. (Regularly refracting.)
26e. Diffusing. (Irregularly refracting and scattering.)
26f. Obscured.
26g. Leaded and Stained.
26h. Glazing.

27. HARDWARE.

27a. Builders.
- 27a1. Pulleys, Weights, Chains, Cords.
- 27a2. Window Cleaners.
- 27a3. Hangers, Door.

27b. Finishing.
27c. Specialties.
- 27c1. Reversible Windows.
- 27c2. Casement Specialties.
- 27c3. Door Operators.
- 27c4. Sash Operators.

28. FURNISHINGS.

28a. Metal.
- 28a1. Lockers.
- 28a2. Furniture.

28b. Wood.
- 28b1. Seating.
  - 28b11. Church.
  - 28b12. School.
  - 28b13. Chairs.
- 28b2. Tables and Desks.
  - 28b21. Library.
  - 28b22. School.
  - 28b23. Office.
- 28b3. Cases.
  - 28b31. Show.
  - 28b32. Book.
  - 28b33. Wardrobes and Cases.
- 28b4. Willow and Wicker.
- 28b5. Upholstery and Trimmings.

28c. Wall Coverings.
- 28c1. Fabrics.
- 28c2. Paper.

28d. Draperies.
28e. Window Shades.
28f. Awnings.
28g. Venetian Blinds.
28h. Hardware, Upholsterer's.
28i. Floor Coverings and Accessories.

STRUCTURAL SERVICE DEPARTMENT

29. PLUMBING.

29a. Design.
29b. Drainage.
29b1. Pipe and Fittings.
29b11. Physical Properties and Tests.
29b2. Ejectors and Sump Pumps.
29b3. Sewage Disposal.
29c. Water Supply.
29c1. Pipe, Fittings, and Valves.
29c2. Meters.
29c3. Heaters and Boilers.
29c4. Filters.
29c5. Softeners.
29c6. Sterilizers.
29c7. Storage and Pressure Tanks.
29c8. Pumps.
29d. Fire Protection.
29d1. Sprinklers.
29d2. Hose Racks, Valves, and Fittings.
29e. Gas.
29e1. General.
29e2. Generators and Producers.
29e3. Lighting Fixtures.
29f. Air.
29g. Plumbing Fixtures.
29h. Bath Room Accessories.

30. HEATING AND VENTILATING.

30a. Design.
30b. Warm Air Systems.
30b1. Furnaces.
30b2. Pipe and Fittings. (For Registers, see 30e.)
30c. Steam and Water.
30c1. Boilers.
30c2. Pipe, Valves, and Fittings. (For Physical Properties and Tests, see 29b11.)
30c3. Insulation.
30c4. Radiation.
30d. Ventilating.
30d1. Blowers and Fans.
30d2. Air Washers.
30d3. Air Filters.
30e. Registers.
30f. Temperature Regulation.

31. ELECTRICAL WORK.

31a. Design.
31b. Conduit and Fittings.
31b1. Rigid.
31b2. Flexible. (Metallic.)
31b3. Fabric.
31b4. Tile.
31b5. Waterproof.
31b6. Outlet Boxes.
31c. Wire and Cable.
31d. Wiring Devices.
31e. Panel Boards.
31f. Illuminating Equipment.
31f1. Reflectors.
31f2. Lamps.
31f3. Lighting Fixtures.
31f11. Metal.
31f12. Glass.
31f13. Composition.
31g. Heating Appliances.
31g1. Ranges.
31g2. Miscellaneous Small Units.
31h. Power Equipment.
31h1. Generators.
31h2. Motors.
31h3. Switchboards and S. B. Apparatus.
31h4. Rheostats and Controllers.
31h5. Transformers.
31h6. Domestic Generating Units.

31. ELECTRICAL WORK—Continued.

31i. Signaling and Communicating Systems.
31i1. Bell-Ringing Transformers and Batteries.
31i2. Bells and Annunciators.
31i3. Alarms.
31i4. Telephones.
31i5. Time Clocks and Stamps.
31i6. Watchman's Time Detectors.
31i7. Telautograph.
31j. Lightning Protection.

32. REFRIGERATION.

32a. Design.
32b. Machinery and Fittings.
32b1. Pipe and Fittings.
32b2. Insulation.
32c. Refrigerators.
32d. Small Domestic Units.
32e. Specialties.

33. ELEVATORS.

33a. Engineering Requirements and Design.
33a1. Traffic Data.
33a2. Platform Sizes.
33a3. Duties.
33a31. Loads.
33a32. Speeds.
33a33. Acceleration.
33b. Passenger, Power.
33b1. Electric.
33b11. Traction. (Direct drive, 2 to 1 rope geared, worm or helical gear.)
33b12. Winding Drum. (Worm gear.)
33b2. Hydraulic.
33b21. Plunger.
33b22. Rope Geared.
33b3. Steam.
33c. Freight.
33c1. Electric.
33c11. Traction.
33c12. Winding Drum.
33c2. Hydraulic.
33c21. Plunger.
33c22. Rope Geared.
33c3. Gravity.
33c4. Hand.
33c5. Steam.
33d. Dumbwaiters.
33d1. Power.
33d2. Hand.
33e. Escalators.
33f. Car Enclosures.
33g. Door and Gate Interlocks and Closers.
33h. Signals.
33i. Devices.
33j. Spiral Chutes.

34. POWER PLANT.

34a. Design.
34b. Boiler Room Equipment.
34b1. Boilers and Accessories.
34b2. Condensers.
34b3. Economizers.
34b4. Super-Heaters.
34b5. Grates.
34b6. Stokers.
34b7. Mechanical Draft.
34b8. Tube Cleaners.
34b9. Separators.
34b10. Fuel Oil Equipment.
34b11. Powdered Coal Equipment.
34c. Coal and Ash Handling.
34c1. Conveyors.
34c2. Pulverizers.
34d. Cranes and Trolleys.

34. POWER PLANT—Continued.

34*e*. Valves and Operators.
34*f*. Pumps.
34*g*. Regulators.
  34*g*1. Damper.
  34*g*2. Feed Water.
  34*g*3. Pressure Water, Steam, Gas.
34*h*. Engine Room Equipment.
  34*h*1. Steam Engines.
  34*h*2. Internal Combustion Engines.
  34*h*3. Turbines.
  34*h*4. Compressors. (For electrical power apparatus, see 31*h*.)
34*i*. Miscellaneous.
  34*i*1. Gas Producers.
  34*i*2. Oiling Systems.
  34*i*3. Oil Storage.
  34*i*4. Oil Filters.
  34*i*5. Water Cooling.
  34*i*6. Combustion Recorders.

35. EQUIPMENTS, INDUSTRIAL AND OTHER.

35*a*. Theatre.
35*b*. School.
35*c*. Library.
  35*c*1. Book Stacks and Lifts.
35*d*. Kitchen and Bakery.
35*e*. Abattoir.
35*f*. Laundry.
35*g*. Barber Shop.
35*h*. Laboratory.
35*i*. Gymnasium.
35*j*. Church. (For seating, see 28*b*1.)
  35*j*1. Chimes.
  35*j*2. Organ.
35*k*. Baths.
35*l*. Hospitals.
35*m*. Garage.
35*n*. Commercial Buildings.
  35*n*1. Mail Chutes.
  35*n*2. Pneumatic Tubes and Other Conveyors.
35*o*. Industrial Plant.
  3501. Material Handling Machinery.
    35011. Conveyors, Power.
    35012. Conveyors, Gravity.
    35013. Elevators.
    35014. Cranes.
    35015. Industrial Railways.
  3502. Ovens, Kilns, Furnaces, Convertors.

35. EQUIPMENTS, INDUSTRIAL AND OTHER—Continued.

  3503. Presses.
  3504. Machine Tools.
  3505. Miscellaneous Plant.
  3506. Chemical Apparatus.
  3507. Brick Stacks.

36. CONSTRUCTION PLANT.

36*a*. Temporary Buildings.
36*b*. Concrete Mixing and Handling Machinery.
36*c*. Hoisting Plant.
  36*c*1. Platform Lifts.
  36*c*2. Hod and Other Hoists.
  36*c*3. Derricks.
  36*c*4. Engines, Steam, Electric.
  36*c*5. Boilers.
36*d*. Excavating Plant.
36*e*. Scaffolds and Ladders.
36*f*. Piledrivers.
36*g*. Trucks.
36*h*. Small Tools.
36*i*. Industrial Railroads.

37. MODELS.

38. LANDSCAPE.

38*a*. Grading.
38*b*. Soil Testing.
38*c*. Fertilizers.
38*d*. Paths. (For roads, see 11.)
38*e*. Planting.
  38*e*1. Grass and Sod.
  38*e*2. Trees.
  38*e*3. Shrubs.
  38*e*4. Plants.
38*f*. Greenhouses.
38*g*. Garden Furniture.

39. ACOUSTICS.

39*a*. Technical Data.
39*b*. Materials.

40. REGULATIONS.

40*a*. Laws.
  40*a*1. Contracts.
40*b*. Building Codes.
40*c*. Underwriters.

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Shadows and Straws

COMPETITIONS in the practice of architecture have their ardent opponents and their equally ardent proponents. They have been discussed with greater or less acrimony during the last fifty years. Out of the discussion there has been evolved the Competition Code of the American Institute of Architects. Slowly this Code has won respect. It has continuously invited and received the allegiance of an increasing number. On the other hand, it has stood as a barrier to the growth of the profession in solidarity of purpose. There are many architects today who decline to be bound by its provisions and who reserve to themselves the right to compete for clients and commissions in whatever manner they choose. They adhere to the theory of competition in price as practiced in business, and, rightly or wrongly, decline to submerge their individual tenets, and the problems of gaining a livelihood, in what the proponents of the Competition Code regard as the larger problem of the whole professional welfare.

The words "rightly or wrongly" are used purposely to disclaim any intention here to debate the moralities of professional practice. In a world organized almost entirely upon the competitive basis, where profit must necessarily take precedence over usefulness as men struggle to live under the law of the selfish motive which society has imposed upon them, the validity of any moral interpretation of an act based upon accepted business procedure is not lightly to be determined. The competition held under the Code of the Institute is in itself a recognition of those very forces which tend so largely to defeat architectural progress, as they are expressed in our political and social economy. We cannot otherwise, in the case of a great public structure, throw proper safeguards around the choice of an architect. To many the competition is thus a confession of the failure of our political system, under which, the examples of malfeasance through political preferment in appointing the architect of a public building, are too numerous to require any recital.

ON THE OTHER HAND, there are architects to whom competitions are *de facto* necessities to architectural progress, who welcome their stimulating effect and excuse the economic waste involved by citing the educational benefits to the participants. The soundness of this belief is not here to be debated. It is mentioned only as one of the various lines of cleavage that still weaken the structure of architectural professionalism. For it must be apparent that a profession which cannot itself resolve these questions is far from being able to impress the public with a definite concept of the architect himself or of the service and conduct rightly to be expected of him. There is as yet no known definition of the architect or of architectural service to which the profession universally subscribes. In the last convention, it was proposed to change the Competition Code in order to make it applicable to less important work by removing some of the restrictions now imposed. The fortunate observer, however, who does not have to make the delicate adjustment of food, clothing and shelter to the particular professional concept of architectural competitions, may perhaps be forgiven for expressing the opinion that the real difficulties in reaching an agreement about competitions lie far deeper than the technicalities or the ethical relations involved in the practice of architecture. Below these lies the economic base on which human activity rests and from which it must spring, and that base is the modern idea of auriferous reward.

HOW THEN is it possible to place any good estimate upon the competition for the State Capitol of Nebraska? Ere these lines are in print it is quite possible that judgment will have been rendered—that the happy winner will have tasted the cup than which few are sweeter—and that the losers will have found their solace in acknowledging that the verdict was meritorious. (There is no other solace, by the way, which is one of the very trying things about a competition.) But how shall one endeavor to estimate or compare the Nebraska State Capitol competition program, for it is with the program only

that we are dealing, with those that have gone before? Manifestly, no estimate will be accorded a unanimous approval. Any contemporaneous evaluation at once falls under the suspicion attaching to all of men's efforts to find out the present day worth of themselves or their fellows. History affirms our annoying mutability, above all in matters of art.

THE NEBRASKA State Capitol competition program, however, is a direct challenge that cannot be ignored. In the face of no matter what differences of opinion, what skepticisms, or what disagreements as to what is an architect or what is architecture, the program conceived for governing the selection of the architect who shall execute this work reveals the keen strivings of a master mind. There is no doubt about that. Neither is there any doubt that seldom before has an architectural advisor so resolutely and with such distinguished success suppressed and obliterated himself and his ideas or convictions from a competition program, to the end that he might set free the full intelligence of those from whom a choice is to be made. The program is written in that humility which springs from a deep faith that men will respond nobly to a noble task, with an understanding, free of illusions, that men do sometimes fall, in which case they must not feel aggrieved should the jury judge them "an undesirable candidate for such an important responsibility." There is no escape from the conviction that courage and intelligence, working on high principles, have here sought not merely to attain something good, but the very best possible under all the conditions. They have sought to ordain, as far as is humanly possible, that the result as finally expressed in a State Capitol, shall mark a step in advance. With such a purpose none may take issue. That purpose is the embodiment of the essence and the spirit of architecture.

It is, however, with the means employed to achieve this purpose that one is immediately concerned. We may assume that all other competitions of this character have sought an equally laudable purpose. The failure or the success of this later effort, will be measured, however, by the radical departures made in the program. Instead of surrounding this competition with limitations based upon a predetermined concept of the solution of the problem, with inhibitions such as must arise out of the psychological reactions to the known predilections of a known jury, with restrictions imposed, in the nature of costs and cubage, as supposed safeguards whereby a daring and unjustifiable extravagance may not win over a patient calculation based upon reasonableness, this competition throws overboard every possible limitation, inhibition, or restriction, except those which a sportsman sets up for himself when he competes with a fellow sportsman.

SOME ARCHITECTS have shaken their heads at this courageous departure. I have heard it said that while this program was all right in the hands of this particular professional advisor it would be a very unsafe thing to use indiscriminately. I heard that comment with regret, since it implies that architects are not to be trusted to behave as sportsmen. Perhaps not all of them are. But may it not equally be true that they are quite as likely to respond to the spirit of sportsmanship as to the spirit of codes and regulations? And ultimately, by what other laws should they be governed, than the law which springs from faith given and received? I believe in putting men on their mettle as men, all the time, and in keeping them there, which is perhaps one prime reason why the program for the Nebraska State Capitol seems to me to be so fraught with potential future good.

The program, it might be said, is a kind of moral agreement. I do not imagine, however, that any competitor could violate such a program with impunity, any more than I believe that any man who plays games can cheat for very long without forfeiting the respect of his fellows. Of course it might be urged that where the stakes are so high as almost to confer an economic independence upon the winner, cheating becomes a great temptation, and that where the prize is of such value more than ordinary precautions are demanded. But I still opine that this particular program leaves fewer loopholes for deception than are left where the requirements are surrounded with arbitrary rules and prescribed postulates.

THESE CONSIDERATIONS, it must have been observed, hover very closely about the point of view which places as first the rights and privileges of the architect. This is not always a conscious position, even on the part of the competitors, but the emphasis frequently alights and dwells at this particular spot when discussions ensue. After all, it is well to remember, the final answer is to be expressed in social and esthetic terms, and the particular man is not important. He is important to find. It is necessary to find him. But after that the building returns to the center of the stage from which it had temporarily been removed under the excitement of finding the architect. But this temporary excitement does give undue emphasis to the necessity of protecting the architect against his fellows during the cumbersome process of picking him out. It is a recognition of this necessity, no matter what its degree may be, that forms the basis of most discussions about the Competition Code. The plain truth is that the competition has not yet won to a position where it inspires architects thoroughly to trust their fellows, and this not because of what passes for flagrant dis-

honesty but because of a reasonable fear, as it seems to me, that under the usual program one may be more successful than another in interpreting the subtleties of the advisor's concept or of the jury's predilections. Hence the feeling that all possible measures must be taken to insure the least advantage of any kind.

THE NEBRASKA Capitol program confers no advantage to anything except brains. It is not muddled or confused with some other person's ideas as to what a capitol structure should be, or how much it ought to cost, or what it ought to be in cubage. It puts the problem right up to the architect and in just the manner he ought to welcome it most. He is invited to show his client the best solution of the problem. He is asked to suggest a building which will answer all the purposes and which shall be reasonable in its demands upon the public purse.

"The ultimate object" . . ., says the program, "is to secure to the citizens of Nebraska the best Capitol obtainable under present conditions. . . . To that end, it (the Capitol Commission) seeks in this competition not to buy a plan with the expectation that the new Capitol shall be built from it, but wholly with the expectation that the showings made shall serve as a means of selecting an architect. To this end, the Commission desires that there shall be a clear understanding, in the matter, and that whoever is finally selected as its architect shall look forward to a complete study of the Capitol problem in close touch with this Commission which has been charged with the task of creating a new capitol for the State of Nebraska.

"As to plan, scope, style, type, or material, the Capitol Commission offers no suggestion. Even in the matter of tradition it is clearly the desire of the Commission that each competitor shall feel free to express what is in his heart, unmindful of what has been inherited in this regard, willing even that the legacies of the Masters should guide and restrain rather than fetter. . . .

"It is desired in the actual building project to provide, under the guidance and control of the Architect, for real collaboration of Architect, Sculptor, Painter, and Landscapist; and to that end the competitors are asked to study the problem of how best to bring this about, and if thought advisable and to the degree so thought in each case they should associate in their competitive work the Sculptor, Painter, and Landscapist, or either or any of them, with whom they would be likely to elect to work out the actual problem or any part or parts of it, in case of their final selection as Architect to the Nebraska State Capitol Commission. . . .

"Regardless of obstacles, anything short of a great monument advantageously placed and properly environed will be nothing less than a complete failure. In this connection competitors are reminded that their present task is so to solve this problem that in the solving, their ability to grasp the undertaking with understanding and conceive its possibilities with vision, and to present and support the result in beauty and with wisdom, shall be clearly made manifest. In not undertaking more definitely to suggest the kind of Capitol wanted, it is clearly the intention not in any way to *limit the possibilities*, by indicating any particular line of approach, either as to plan and scope or as to style, type, or material. . . .

"On the theory that competitors share in the desire to determine through competition which of them really should be chosen, the usual mandatory requirements have been omitted from this program and the test of fair play substituted. Each step should measure up to that test and each question be decided thereby. Any departure from the terms of the program would leave a competitor's status in the hands of the jury. Should unfair advantage be gained or sought by a competitor, he surely could not feel aggrieved if the jury should in consequence adjudge him an undesirable candidate for such an important responsibility, and act accordingly. . . .

"In arriving at its conclusions, the jury (its members having first thoroughly familiarized themselves with the program) shall seek always to determine, by his showing in the competition, which competitor has given promise of being best qualified to design and supervise the construction of the proposed Capitol—not failing to remember that the Capitol is finally to be built from designs that are to be made on that closer study of the problem, in collaboration with the Capitol Commission, which is precluded under competition conditions; and that the Commission hopes to secure an architect whose judgment shall be reliable on those larger phases of the problem that involve all of its collateral aspects, including site, setting, and cost, considered for the future as well as for the present, and under conditions of instability and change unprecedented in building history.

"Therefore the jury is cautioned not to overlook indications of these qualifications in the solutions presented. The jury shall not seek to put out of the running a competitor who has dared to show a scheme that oversteps either funds or site available, or who has justified by his project a departure from conventional lines—providing his showing does indicate those qualities that the Commission seeks to find in its architect, and providing the test of *reasonableness* has been met in what is proposed, and that no determining advantage has been gained through departures from the program made in contravention of sportsmanship and fair play."

ONE OF THE COMPETITORS has told me that never before had he known the joy of working on a problem with the full freedom conferred by this program. This ought to be easy to understand. It ought to be difficult to deny. No competitor could have felt otherwise one would think, unless he still hugged the phantom of unsportsmanship as a fear. Banishing that, as one hopes that all the competitors did, what more pleasing prospect could offer? A great structure to be conceived out of imagination itself. A monumental edifice to be evolved out of Time and Space, out of the Past, out of the Present, and even out of the Future. No limits except those of reasonableness. No suggestions of any kind except as to certain technical requirements in the presentation of the scheme. (And these differ a good deal, by the way, from ordinary programs.) The architect is literally asked to perform his full function (one hesitates to offer the definition) of creating a capitol building such as may be built within the reasonable limits of a state treasury and having intimate regard to Utility and Appearance.

IN FAR TOO MANY COMPETITIONS the architect finds himself the perfunctory interpreter of the advisor's conception—the guesser of minds—the searcher for clues that will lead to victory over another road than that of sheer ability. Under such a program as that under discussion, the competitors might amuse themselves in trying to guess the names of the jury, if they so wished; they were not known, in this particular case, until after the drawings were on their way to judgment, and this provision is one of the radical departures in the program. It is likely to be much discussed in the future.

But it is fair to assume that every competitor in the Nebraska Capitol Competition thoroughly enjoyed the freedom of action that was his. that he has sympathized with a program written about two sincere desires; first, to find a man; second, to achieve a building. Were it possible to substitute the crown of wild olive for the reward which the winner of the Nebraska State Capitol will receive, we might feel that art was on the way to being restored to the days of its splendor. Even so, may one not share the hope expressed in these words of the "Concept," taken from the program:

"Rome's greatest basilica is not the only legacy left by the architects of St. Peter's. Michael Angelo's dome was chosen, but to the designs of San Gallo, Bramante, and other unsuccessful competitors, the world owes many of its greatest monuments. Besides a noble Capitol for Nebraska, may not this competition yield to Architecture a wider heritage?"

A GOOD DEAL of additional interest attaches to this particular competition. The Nebraska Chapter of the Institute had just been formed when the project for a State Capitol arose, and the President of the American Institute of Architects at that time was Mr. Thomas Rogers Kimball, resident in Omaha and there well and justly reputed. The authorities of the State might well have felt themselves on safe ground in awarding the commission to Mr. Kimball, or at least in confining it to the architects of Nebraska. But the new Chapter at once took action in which it urged the Capitol Commission to institute a competition in order that no opportunity should be lost for securing to the State of Nebraska the most skillful architectural service to be found in the whole United States. It was rather a fine thing for the Nebraska Chapter to do, and the act will not be lost to sight in the history of the new Capitol.

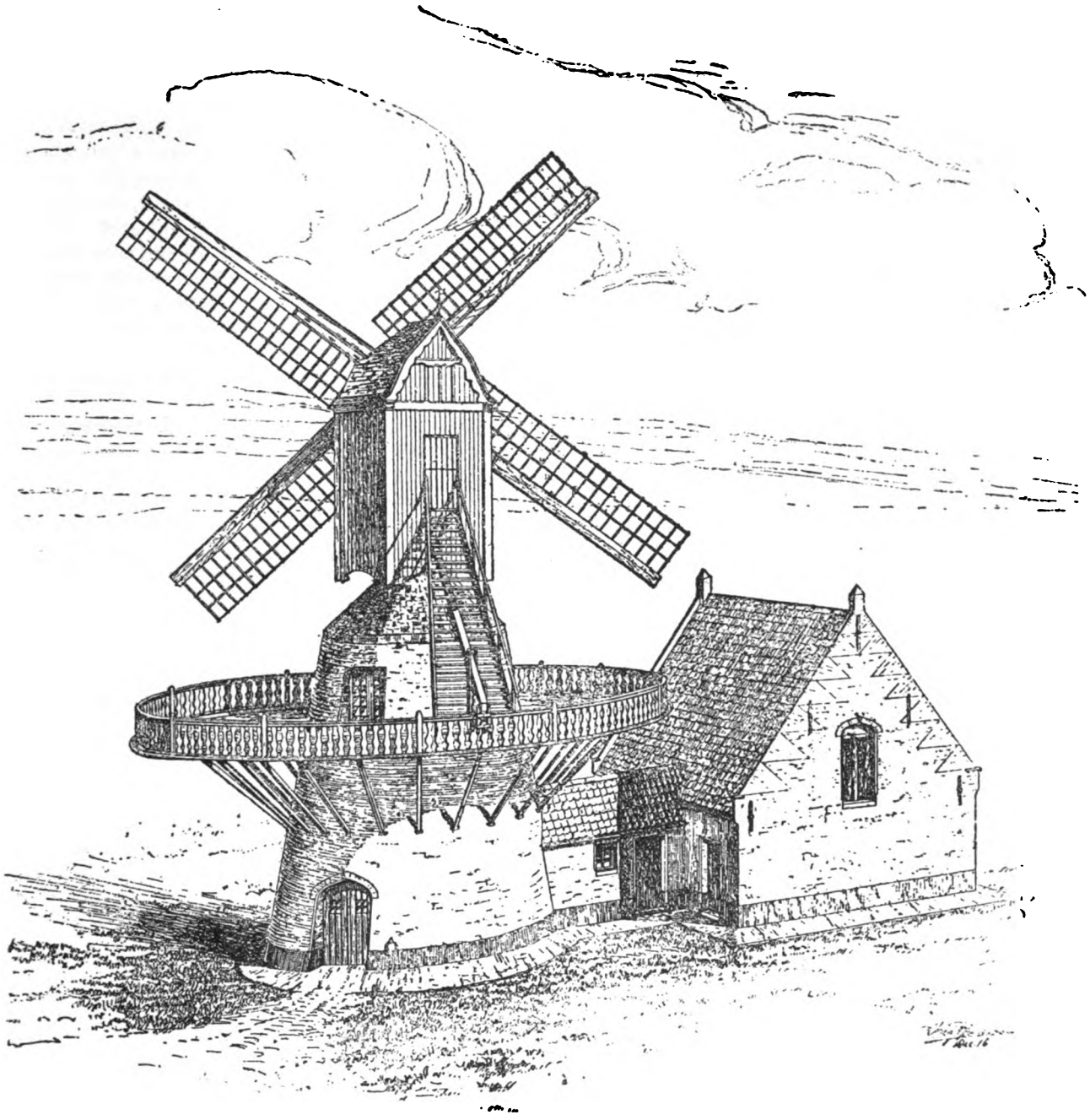
Mr. Kimball was selected by the Capitol Commission to be its professional advisor. The members of the jury were Messrs. James Gamble Rogers of New York City; Waddy B. Wood, Washington, D. C.; and Willis Polk, San Francisco.

ELSEWHERE we reprint the prospectus of the London Building Guild. It is an extraordinary announcement and is the culmination of many guild activities that have already been chronicled in our pages. With many towns in England now entering into direct contact with the workers for house building the Guild movement enters upon another stage of its development. The challenge to the long established system of building for profit instead of for use cannot but awaken sympathy in the hearts of all those who sincerely care about architecture. To reconcile the Guild methods with those of the old order will require infinite patience and care. But above all, the success of the movement will depend upon sympathy and toleration. Given an abundance of those, the guildsmen may win through to that better industrial system on which their hearts are so passionately fixed. Each must choose whether he will help or hinder.

An adjustment has also been reached between the Manchester Building Guild and the Ministry of Health. The Guild's tender for building 1,000 houses for Irlam was denied approval by the Ministry because of the financial terms. The Guild suggested a flat 10% payment, based on cost, to cover management expenses, lost time, and equipment. The final arrangement provides for a payment of 40 Pounds per house, which means that the Guild loses somewhat on each house costing more than 1,000 Pounds, but gains when the cost is below that figure.

"It is all important to the men who lead and comprise the Building Guilds that they should justify their experiment to the nation as a whole, and if the full incentive of this fact had been better appreciated the Guilds might ere this have been building the much-needed houses," says the Manchester Guardian. "Now at last they will go ahead, for a compromise has been arranged which satisfies both the caution of the official and the idealism of the operative, and which should prove the basis of the Manchester Guild, of the London Guild which has followed in its footsteps, and of the others which will nb doubt be formed and ultimately related in a national organization . . . The Building Guilds have now an assured basis on which to begin work. The fact that the Co-operative Wholesale Society so far believes in their cause as to assume their insurance risks and provide their material adds greatly to the strength of their position, and the agreement come to should not only facilitate a building programme which has been lamentably delayed, but inaugurate a social experiment of prime value."

UNIFICATION of the architectural profession is again to be actively undertaken in England, through a special committee appointed for the purpose. In France due probably to the necessity of presenting a united front to the Government on questions affecting reconstruction, the various architectural associations have federated and the new body seems to be winning confidence and gaining headway. In Australia the newly formed Architects' Association of New South Wales is in opposition to the Institute of Architects over the new registration bill which, although it seems to be satisfactory to the Government, does not offer a basis of qualification acceptable to the new Association. Complete unification of the profession is probably impossible, in any country, but the fact that a common ground of action is continually being more actively sought is at least a hopeful sign.—C. H. W.



THE WINDMILL AND CENTRAL ELECTRIC STATION—Templehof Farm, Belgium

(See page 261)

The Crisis in Architecture

By ARTHUR J. PENTY

IV. A THEORY OF THE PICTURESQUE

TWENTY years ago it was a commonplace of architectural thought to say that inasmuch as architecture was not an individual but a cooperative art having its basis in communal traditions of design and handicraft, which in all the great ages of architectural activity were the communal possession of the whole people, the higher branches of architecture would never flourish until the mass of ordinary building was decently and well done. Since the Renaissance was revived this theory has been largely abandoned and the idea promulgated that architecture is an individual rather than a co-operative art, dependent upon the skill of the individual architect. That certain very gifted architects have, in spite of the absence of communal traditions of design and handicraft among the people, succeeded in producing buildings of real architectural merit I should be the last to deny; and in one sense it is true that the great change must follow the multiplication of such architects; but that there is any prospect of increase in their numbers so long as the individualist philosophy of the Renaissance obtains is to be denied, for it leads the average member of the profession to suppose that success in design is due to an undue deference to authority in respect of the higher forms of architecture and personal anarchic inspiration in respect of the lower. It is not generally recognized that both these ideas are opposite forms of the same error inasmuch as architecture both in its higher and lower forms acknowledges inward laws, a principle of growth which it should be the aim of all architects to understand, for its comprehension enables those who obey it to handle the higher forms with freedom and liberty and to introduce order in the lower forms, by emancipating them from the styles. The teaching that directs the architect's attention to the discovery of these laws rests on the belief that architecture in its higher and lower forms is a one and indivisible substance—the idea that was formerly taught and the idea to which we must return.

Now the abandonment of the idea that any widespread revival of architecture must come from a revival of ordinary building was not, I am persuaded, due to the fact that it was felt to be untrue but because the path of the reformer was beset with difficulties. These difficulties are of a twofold nature. The first owes its existence to the economic problem in architecture which becomes more perplexing the lower we go down; and the second is that an architect engaged upon small scale work must rely almost entirely upon his own resources and so it works out paradoxically in these days that it is really much more difficult to design cottages well than larger work. If an architect is commissioned to build a church, a public building or a large house he has ready to his hand a vast amount of data to go upon. A hundred volumes will tell him most of what is to be known about the more important buildings of the past, and the details of these, if need be, may be used very much in their original form. But with small domestic work this is not the case. There is not a tithe of the data available; while such as there is has not been subjected to the same careful critical analysis, and is not as a rule immediately available for modern use, owing to the fact that the modern demand differs fundamentally from the old. The consequence of this is that the architect of small domestic work has not only to collect and analyse most of his data for himself, but he has in addition to translate such ideas as he may gather from old work into the terms of modern practice. He is at the same time hampered in this supremely difficult task by an almost diabolical combination of legal and economic difficulties from which the architect of larger work is for the most part free. The result is as might be expected. The majority of architects fail entirely to unravel the æsthetic and economic entanglements in which they are involved; and, as is natural when men fail to see the light, they follow the line of least resistance and succumb to purely commercial influences. At the best they give their thought to the purely practical questions of sanitation and convenience, muddling through the æsthetic problem as best they can, while apparently remaining satisfied if their efforts are no worse than those of others.

A consideration of such circumstances leads me to the conclusion that there can be no hope for any widespread revival of small domestic architecture and other utilitarian building that lies at the basis of our problem until a literature is available clearly formulating the principles that should govern such work. One of the aims of such a literature would be to gain respect for such work by killing the idea that order obtains in the higher forms of architecture but is inapplicable to the lower, and by showing that the picturesque is not a mere haphazard arrangement that is accidentally pleasing but has behind it a conception of order that is on a far higher plane than the ideas of order we are accustomed to associate with Classic architecture; for whereas the

latter is concerned for the most part with the trimmings of architecture, the former is concerned with things far more fundamental, as we shall find when we come to consider them.

Architecture which may be classed as picturesque covers such a range of styles and varies so much from country to country and locality to locality that I have no option but to confine the scope of my inquiries within certain narrow limits. Immediately the theory I propose to enunciate has been deduced from a study of the vernacular architecture of the villages in the neighborhood of London (which incidentally, were perhaps the most beautiful in the world but are so no longer, for many if not most of them have been spoilt in recent years) but will, I believe, prove to be of wider application in the sense that it provides a key to the study of the picturesque wherever it is to be found, in large buildings as well as small.

To begin, then, the key to the picturesque is not to be found in any external rule or system of proportion but in a method of work, in a way of approach. It postulates the perception of a certain order in which the various issues should be taken. If the issues are taken in their right or natural order everything will fall naturally into its place, but if they are taken in the wrong order everything will go wrong. The key to this order is, I am persuaded, to be found in the plan of the roofs. To master the principle, on which the old roofs were planned is to go a long way towards mastering the picturesque, for in all picturesque architecture the roof plays the leading part. When we think of a picturesque building or village or city we immediately think of the arrangements of the roofs. Any general view of a town is often little more than a collection of roofs with a few large buildings, generally churches, towering over them; and this is as true of Italy, France, Germany, as of England. In each case the general impression is one of roofs whether they be the high pitched roofs of northern Europe or the low pitched ones of the south.

It is the custom of most architects when they begin to design to begin with the Ground Floor Plan. The study of old work combined with practice has convinced me that this is a mistake, and that the old builders began with the plan of the roof; or if that is not entirely true, it may be said that they formed in their minds some conception of the general form of building contemplated, some rough idea of the proportions that the length, breadth and height should bear to each other as a working hypothesis from which to start, and that the key to such general conceptions was to be found in a theory of roof planning. This general idea which formed the basis of the design would be amended and amplified as the planning of the internal arrangements suggested modifications in this or that direction; and it was the interaction as it were between the first original general conception and the necessities of plan that gave to such buildings their quaint features, justifying all kinds of things which came about in an accidental kind of way. Thus we see that picturesque buildings were, so far as their general conception was concerned, premeditated design, but not so in regard to the details which came about as the result of a compromise between the original working hypothesis and the actual practical demands.

As I have worked upon such lines for many years I can assure my readers that designing became for me very much easier and was infinitely more successful once I got hold of this idea. The important thing is to get hold of the first "nucleus idea," if I may so call the original working hypothesis, and to let practical considerations suggest modifications. Apart from some such nucleus idea the plan is apt to become a mere aggregation of rooms and the elevations a mere aggregation of features. The plan may be convenient or not, the features of the elevation may be interesting or not, but unless they are related to some central nucleus idea the design will not present a unity; and the secret of such unity I contend is to be found in a mastery of roof plans, because the roof plan governs both floor plans and elevations. If the architect begins with the ground floor plan and thinks nothing about his roof until he comes to it he will probably find that instead of being a simple straightforward affair it becomes very confused and complicated, while the elevations do not "pan out" exactly as he would have them do. The windows and doors will not naturally fall into their places with that feeling of inevitability which is the distinctive note of all good design. There will be misfits everywhere. And having got himself into this mess the architect will be tempted to redeem the situation by the addition of little decorative trimmings. Little bits of half-timbering, tile hanging and rough cast will be dotted about without rhyme or reason in a vain attempt to redeem the unredeemable, it never apparently occurring to such architects when they find themselves in such difficulties that there is no way out of them other than to retrace their steps back to fundamentals. They imagine that the difference between themselves and better architects is that the latter have a genius for extricating themselves from such difficulties; whereas the truth is that they have sufficient foresight not to get themselves into them. If the necessary care and forethought are exercised in the early stages of a design it ought to be possible in ordinary domestic work to design the elevations almost with the eyes closed. Nor as a rule should the suggestions of clients prove very troublesome; for when a design

is built up in an organic way it is very adaptable; and, generally speaking, it is possible to incorporate the suggestions of clients without spoiling the effort; nay, at times, it may actually enhance it. I have not infrequently found that clients' suggestions have acted as a stimulant. No one who has ever tried working upon such lines will doubt it was the way the old builders worked.

The decision as to what form the general idea of a particular building should take is of course finally a matter of judgment, instinct and imagination, and no rules can be given to enable the architect to decide which is most suitable to a given site or set of circumstances. All the same, we can learn much from the past. An acquaintance with the general forms of old buildings is food for the imagination and would keep us straight within certain limits. The first thing to decide is whether the roof should be large and dominate the wall space or whether the walls should dominate, in which case the roof would be kept small. The thing to avoid is equality between the two. Either the roof must be subordinated to the walls or the walls must be subordinated to the roof, for emphasis must be only at one point. If this is not absolutely true it is true so far as the great mass of ordinary buildings is concerned. Very large buildings may have more than one point of emphasis but average sized buildings may not.

The next thing to decide is the proportion that length, breadth and height should bear to each other. Tall buildings that assume the form of a tower, and very low ones like a summer-house, may be square on plan; but generally speaking it is advisable to avoid a plan that approximates to a square. This is especially the case in houses that are two stories high up to the eaves, for with such a plan it is impossible to make a fine looking building; and it is because the vast majority of houses in the suburbs approximate to a square on plans that suburban architecture in these days is so deadly.

I say, then, it is impossible to make a really fine looking building with a plan that approximates to a square. The usual roof treatment of houses on

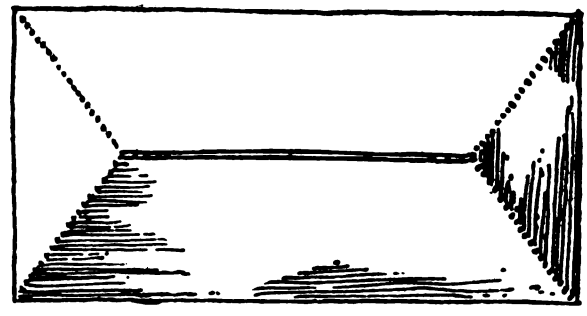


FIG 5. (PLAN)

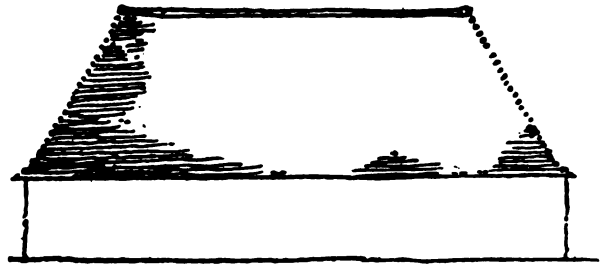


FIG. 5 (ELEVATION).

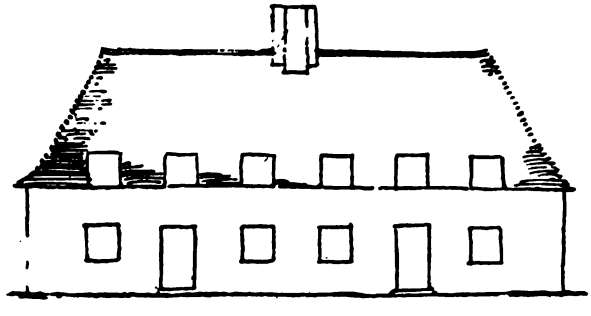


FIG 6.

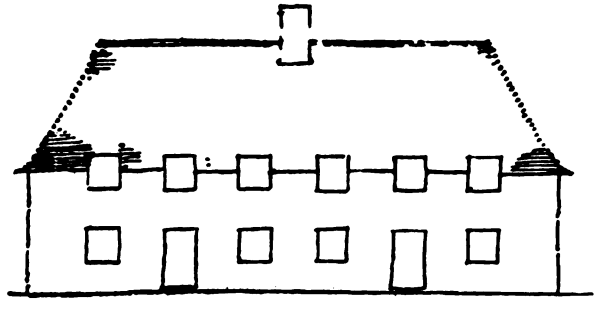


FIG. 7.

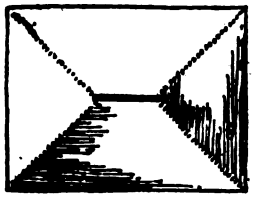


FIG. 1

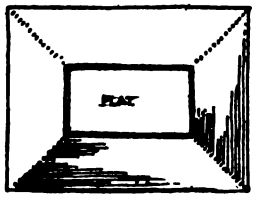


FIG. 2.

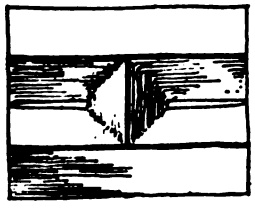


FIG. 3

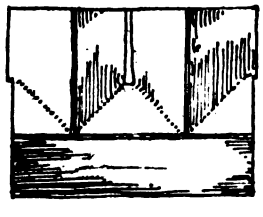


FIG. 4

such a plan in the suburbs is like Fig. 1, where a start is made by hipping the roof all around and adding gables here and there to destroy the monotony. Such a treatment is hopeless, for the roof becomes humpy and awkward. If the plan inevitably approximates to a square, there are three ways of rescuing the design from sheer ugliness. The first is to put a flat in the center of the roof as at Fig. 2; the second is to make two parallel roofs as at Fig. 3; and the third is as shown in Fig. 4.

The reason why the average suburban house today approximates to a square on plan is because it is customary to make houses two rooms thick on plan. In former times the average house in the country was one room thick and this by halving the breadth and doubling the length gave a very pleasing proportion. It resulted in the long, narrow type of plan which is the basis of the old domestic architecture. Houses in the past which were two rooms thick were either very large ones or were built in groups which gave the roofs a sufficient length to produce a pleasing proportion. Generally speaking, it may be said that when such groups of houses are roofed by a single span, emphasis is given to the roof by commencing the roof at the first floor[1] level as at Fig. 5.

Provided it is long enough, a one-story building with a high pitched roof is very charming. But buildings that lend themselves to such a treatment of their proportions are exceptional, and in former times this style of proportion was rarely used except for barns; for in domestic work it results in a curtailment of the bedroom accommodation. Preference therefore was usually given to houses two full stories high with or without attics in the roof; or a compromise was made with one full story and one-half in the roof, as at Fig. 6. In such cases the eaves line should be at the level of the first floor window-sill and should not be half-way up the window as at Fig. 7, which is a very unpleasant arrangement except in cases where the windows are a good distance apart. For where there are many windows the eaves lines is chopped up into too many little parts. As, however, it is necessary to confine our inquiry within manageable dimensions, it is desirable for the present to rule out all these exceptions and to explain the principle of roof planning as applied to buildings two full stories high; for if we grasp the principle as applied to one type of building it will be easy for the architect to follow the subject up in other directions. But that must be in the next article.

[1] The floor which in America is called the first floor is here called the ground floor, the second floor the first floor and so on. I follow the English terminology.

London Happenings.

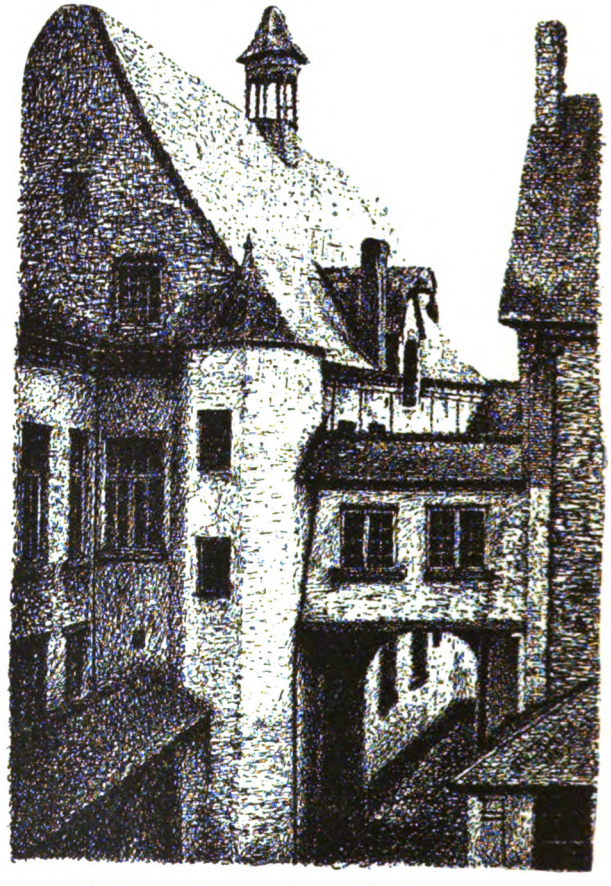
AT THE general meeting of the Architectural Association held on May 10 last, Mr. Robert Atkinson gave an address on his "Impressions of American Architecture," which it is hoped later to publish in these columns. The proposal that the Association should extend a cordial invitation to all American architects visiting England was carried with great enthusiasm. It was suggested that they be made temporary members of the Association while in England and be given full use of the Association's club rooms, and that a program of visits to buildings in London or country houses round about be arranged. The JOURNAL is authorized to extend this invitation to American architects generally and it feels itself fully warranted in expressing their full appreciation of the hospitality so thoughtfully and generously extended.

LONDON has been startled indeed with the report of the Bishop of London's Commission to consider the problem of City Churches. Dealing with 47 benefices having a yearly income of 53,000 Pounds, the report recommends the division of the city into four ecclesiastical Quarters, each to become one parish with a rector and four assistant clergy. It is consequently recommended that the following nineteen of the churches be demolished and their sites sold: All Hallows, Lombard Street; All Hallows, London Wall; St. Botolph, Aldgate (except tower); St. Katherine Coleman; St. Clement, Eastcheap; St. Dunstan-in-the-East (except tower); St. Magnus the Martyr (except tower); St. Mary-at-Hill; St. Mary Woolnoth; St. Michael, Cornhill (except tower); St. Alban, Wood Street; St. Anne and St. Agnes; St. Botolph, Aldersgate; St. Dunstan-in-the-West (except tower); St. Mary Aldermanbury; St. Michael Royal (except tower); St. Nicholas Cole Abbey; St. Stephen, Coleman Street; and St. Vedast (except tower).

The report has raised a storm of protest in the press and among the various learned societies. It seems to be generally recognized that the Church must find money, and it is hinted that the report may have been designed to stimulate the raising of money by other means. At a meeting of the Society for the Protection of Ancient Buildings, it was stated by Lord Ferrers that if these monuments were to be saved, the Church could not be expected to bear the whole of the loss involved. The Council of the London Society is arranging a lecture on the nineteen threatened churches.

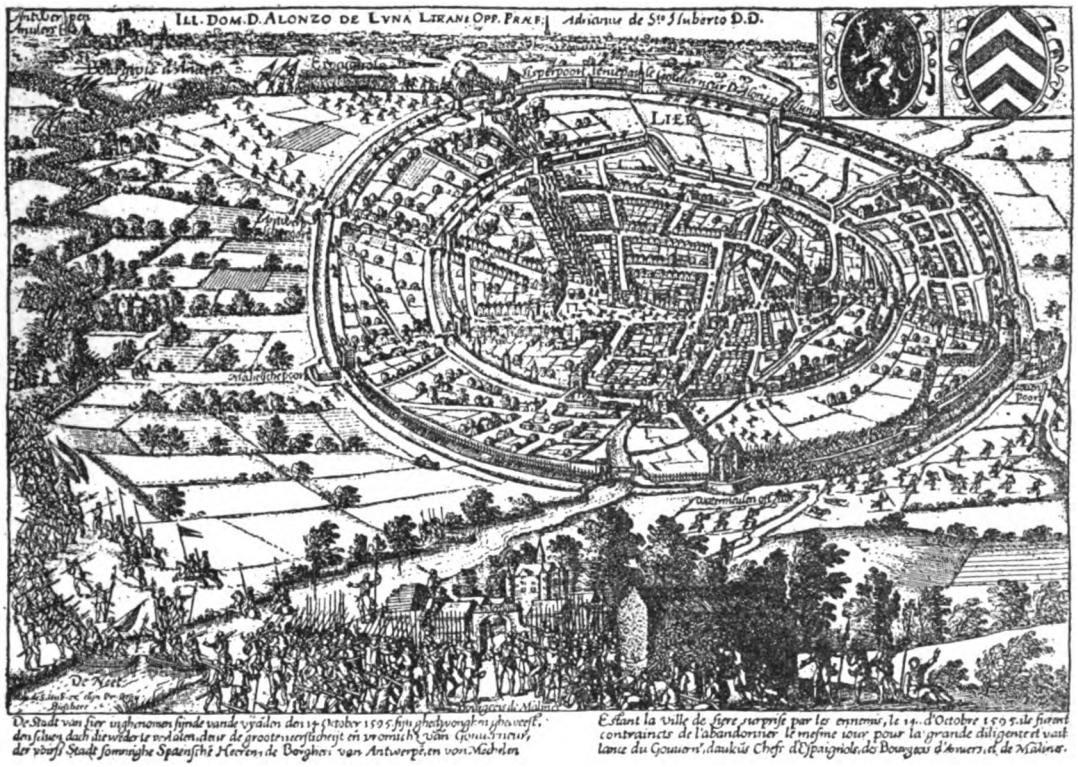
The Banks of the Petite Nethe, after the plans of M. G. de Ridder

A shop facade—"Le Louveteau," 18th Century



Interior of the St. Elizabeth Hospital. Built in 1236

LIERRE, BELGIUM



LIERRE, BELGIUM.—A PLAN OF THE CITY IN 1595

The Civic Vision of Lierre, Belgium

The City of Lierre, fifteen kilometers south of Antwerp, was founded in the eighth century on a nearly circular island in the river Nethes. In the thirteenth century a moat and surrounding wall were built and in the fifteenth century another was constructed on the banks of the river. The dwellings and the industry were contained within the inner ring between which and the outer ring of fortifications was a belt of agricultural land of about 225 acres, the entire municipal area being about 325 acres. While not due to the same causes, Letchworth and Lierre have practically the same physical plan. They are both towns, based on industry, surrounded by a protective and productive belt of agricultural land, and there was no doubt that more than once, when besieged by enemies, Lierre found very good use for the food grown within its walls.

The Central Committee of Temporary Shelter and Reconstruction of Belgium is publishing monographs of Lierre and other cities damaged during the late war. In the foreword are found the following paragraphs:

"Our principal aim is to lead the citizen to say, 'The beauty of my city, of my quarter, of my street is a part of my personal riches and my enjoyment. The building which makes it ugly is an assault against the interests of all, collectively and individually. I have pride in my city. The duty of my generation is to stand guard over its beauty and to add to it. If I rebuild or alter I desire that my plans mark a progress and unite beauty and utility. Beauty is often cheaper than ugliness. My house in the future will be better than that of the past, its lines more elegant, its materials better chosen, its profile more picturesque, its color more cheerful. My ambition is to add an harmonious form to the architectural setting of my city.'

"Our second aim is to draw the attention of the local authorities to the basic principles of the art of town planning. We will say to them: 'Here are the drawings typical of the beauty of the city of which you are the entrusted guardians. Familiar with the growth of your municipality you will decide with assurance the problems of the adaption of the streets to its economic life, to its traditional shape, to its normal development. Each one of these streets will be given the character due to the lay of the land, to a pleasing perspective, to the picturesque unexpected detail, to a form imposed by the climate.'

"The building line once determined upon, the design of each facade will be under the control of a competent committee from which artists will not be excluded. Two principles will govern building permits: variety and harmony. Utilize water reflections and preserve old trees, those treasures! Tolerate neither imitation nor parody. Let art rule in the design of lamp-posts, poles and supports for electric lights, clocks and newsstands, signs and street accessories. If a monument is decided upon, spare no pains to discover the artist whose genius, expressing the vague desires of the people, will create a work of originality and power, the pride and glory of the city.

"Our third aim is to appeal to public opinion. To men and women who sympathize with us, we say: 'Collaborate with us. Scatter abroad the spirit of public art. Sustain the architects who understand that the first duty of their art is to preserve the originality of our epoch. Remember that an harmonious city adds to the beauty of our beloved land.' "

If those to whom is to be entrusted the rebuilding of Belgium will be guided by the principles set forth in this prospectus, there will be little to fear but that the result will be most fortunate for their country. It would be entirely fitting and would have a beneficial influence if the first paragraph should be prominently displayed in every building inspector's office in the United States.

JOHN IRWIN BRIGHT.

The Convention of the American Federation of Arts

At the Convention of the American Federation of Arts recently held at the Metropolitan Museum of Art, New York, there were gathered a goodly number of Museum directors, a few artists, and a rather large number of amateurs, lovers of art and so-called patrons of art, many persons who like to breathe the atmosphere of art for the sake of the so-called culture it is alleged to bring about. From such a gathering one would naturally expect a great deal of that drivel about art with which we have been deluged for many years and little of anything constructive or progressive. On the contrary, many things were said and proposed at this Convention which were full of hope and promise for the future. It was extremely unfortunate that the program arrangement severely limited discussion. Undoubtedly a great many worth-while things would have been brought out if there had been a better chance for discussion; also, one feels that the Convention might have been more prolific of results with fewer subjects on the program and more time for impromptu discussion. The Chairman's ruling that speakers would not be heard except from the platform, the passage to which was rather exiguous, no doubt kept down a great deal of discussion.

Architecture

The report of the Secretary, Miss Mechlin, and the discussion on extending the Federation's influence and resources, led by Mr. Hutchinson of Chicago, brought out pretty well what the Federation had been doing and hoped to do. As a member of the Institute, I could not feel but that some of the things proposed could be much better done by greater cooperation with the American Institute of Architects or by the Institute alone, particularly the activities relating to city planning and war memorials. Mr. Charles A. Coolidge of Boston offered for the American Institute of Architects, or rather its Committee on Education, all possible help and cooperation with regard to the lectures on architecture which the Federation sponsors, suggesting that various members of the Institute might write the lectures on different subjects and that those members living in the vicinity of cities where these lectures were to be sent might deliver them and lead the consequent discussions.

Art in the Home

One of the best papers was by Mr. Allen Eaton on "Art in the Home." His definition that "Art in the home means the most thoughtful selection, arrangement and use of those things by which people live each day so that they give increasing pleasure to their possessors and sincerely reflect the spirit of the homemaker," is certainly a refreshing one. One of the most interesting things in Mr. Eaton's discussion was his description of the Federation's exhibitions and sales of inexpensive prints of merit for home decoration, of which he had charge.

Museums

Mr. George W. Steven's remarks on how to establish an art museum were based mostly on his experience of building up the Toledo Art Museum from a single picture, a desk, and a half dozen chairs, to one of the most beautiful and useful museums in this country. Mr. Stevens was convincing and his facetiousness put everyone in good humor, despite his unpleasant but true remarks about why some people gave things to and helped to establish art museums and how some communities waited for someone to die in order to establish art museums.

He brought out the fact that the museum has two functions: one to preserve the things created by the masters, and the other to bring these things to the people in such a way that they might use them in their daily lives; that the important thing after starting a museum was to see that it was of some definite service to the community; that the difficult thing was to start a museum, but after really starting, the rest was easy, if you sincerely decided to do something with the museum after it was started.

Community Centers

Museums as community centers were discussed by Mr. George W. Eggers, Director of the Chicago Art Institute, who began by stating that the first community center

was probably the public fountain where everybody in the old town had to come and where undoubtedly they discussed civic things and passed on the gossip of the day; that whether an institution was a community center or not depended upon its function rather than its form. He made the suggestion that it would be of great interest and value for the museum to bring masters of painting or other graphic arts to live in the city for a time and to depict its life from the viewpoint of the outsider, in that way building up a pictorial history of the community life and traditions.

Mr. Eggers told how the Chicago Art Institute made itself useful to the community and of a very interesting experiment which might be called "Laboratory Instruction in Interior Decoration and House Furnishing." A stage setting of a bare room was made and furniture and hangings brought in and tried in various places in the room until it was satisfactorily furnished, with comments and suggestions by the audience. The room was also overfurnished and then, with suggestions from the audience, furniture and other objects were eliminated until the room seemed properly furnished. These experiments were carried out in various ways. As to how a layman could best benefit in an educational way by the objects in the museum, he suggested the isolation of some great work of art where contemplation might be concentrated on this single work; after a considerable time this exhibition should be followed by an exhibition of works which led to the particular object which was originally displayed, and then by an exhibition of works which were influenced by that particular object. In that way could its full æsthetic value be realized.

Billboards

Under the title, "The People's Picture Galleries," billboards were discussed by Mr. Joseph Pennell, shop-windows by Mr. Robert Grier Cooke of the Fifth Avenue Association of New York, illustrated papers and magazines by William M. Ivens of the Metropolitan Museum of Art. This was undoubtedly the most lively session of the Convention, mostly due to Mr. Pennell's lurid though earnest denunciation of the billboard nuisance. Mr. Pennell opened his remarks by the statement that for every child who was bribed to enter a museum and look at a picture which it does not understand and cares nothing about, one hundred thousand children were viciously influenced by the billboards. He called the billboard interests a fairly varied assortment of names from pirates to savages and got pretty warm in his discussion. He made some undoubtedly exaggerated statements and finished by telling the ladies present "that if after having the vote they couldn't have all the billboards torn down they had better stop cackling about art." His suggestions for the cure of the evil were the establishment of a National Department of Art which would cope with it; the boycotting by the public of all the manufacturers and shopkeepers who advertise on billboards; prohibitive taxation as established in France. Mr. Pennell was unquestionably honest and earnest in his arraignment but if he were less lurid and vindictive and more dignified in his condemnation he would make much greater headway. Mr. Nokes, President of the Poster Advertising Service, was called upon to answer Mr. Pennell and defend the billboard interests, but he seemed to have very little to say that was worth while and when he questioned Mr. Pennell's sincerity and honesty, he was roundly hissed.

Resolutions

It was decided that the time was inopportune for the recommendation of the appointment of a National Department of Fine Arts. The resolution opposing the bill enabling the use of 8,000 acres of Yellowstone National Park for an irrigation basin was approved. Resolutions approving the erection of a national war memorial at Washington, and the increase of time devoted to art education in our colleges were approved, as was a resolution vehemently disapproving billboards. A set of resolutions recommending, among other things, the reform of the copyright law, vesting the copyright in the artist and to be transferred by his actual relinquishment only; consideration by the Federation of protective measures against the production and circulation of spurious works of art; the reduction in the cost and improvement in the quality of art materials; and a law similar to the French one authorizing a tax of two per cent on the purchase price of art objects by deceased artists, the proceeds of the tax to go to the heirs of the artist, were all approved.

A Visit to Laurelton Hall

The day following the Convention, the delegates and their families were invited to visit Laurelton Hall, the home of Mr. Louis C. Tiffany, endowed by him as a school and museum for young art students, under the name of the Tiffany Foundation. This trip was a rare treat. The grounds about Laurelton Hall are laid out informally and widely planted with flowers, many of which were in bloom. Seen under the ideal conditions of a beautiful spring day, it is difficult to describe it all. As for the house and its collections, there is probably no architect or decorator who would think for a moment of deliberately planning that sort of thing. Yet one could feel at every step that it was a slow growth of many years and the embodiment of Mr. Tiffany's profound sense of color and composition. It was unmistakably Mr. Tiffany's house, of him and by him. His versatility was everywhere evident. Pictures, stained glass, vases, light fixtures at every turn bore the evidence of his magic touch. As a worker in glass Mr. Tiffany must stand as a master; less masterly as a painter, one was nevertheless greatly impressed by the collection of travel sketches in water-color, some of them dating back more than fifty years.

The location, one of the most beautiful spots on the north shore of Long Island, is ideal. The ample old stables have been turned into students' quarters and studios, while the house itself is full of books and collections of beautiful objects. And all of this record in art and craftsmanship of his long and busy life, which is still almost as busy as ever, this man has given and dedicated to students in order that they might benefit and grow by the fullness of it.

BEN. J. LUBSCHEZ.

Russian Working-Class Dwellings.

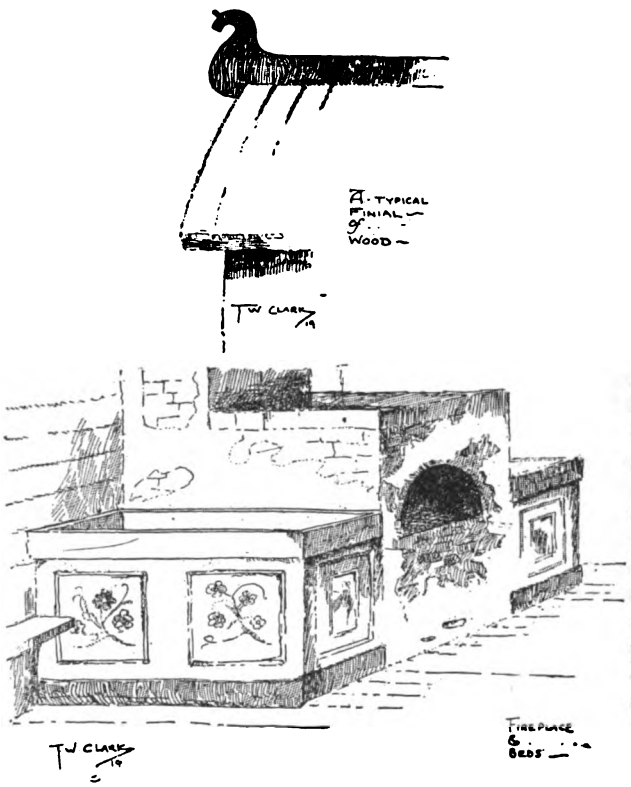
By T. W. CLARK, Late 45th R. F., R. E. F., in the Journal of The Society of Architects, London.

Stretching from Moscow and Vologda to the White Sea, is a vast tract of country practically unknown to the British people; without railways and having few roads, its very inaccessibility is not calculated to tempt the average British visitor to make a tour. Nevertheless it is well worth it.

In parts densely populated the customs and habits of the peasants make an absorbing study.

Isolated houses are few. For mutual protection, the inhabitants live in townships or "Societies." The houses well spaced, are always of wood, very substantial, roomy and generally with gable facade to the main street, or road. The village streets are fairly wide, about 50 to 100 feet broad, and in front of the churches even wider.

The churches are remarkable features of the sea-green landscape. Painted white, the commanding towers and detached belfrys (octagonal in plan), surmounted by apple green spires of fluted wood "slates," crowned with glittering gilt cupolas topped with the Russian Cross, strike a distinctive color note against the blue sky. The boundary walls of the churches are generally of russet bricks — a precious commodity—and wood rails. Usually, there is an entrance archway — sometimes wood and sometimes of brick, but in nearly all cases, a Holy Icon is an inset in the apex taking the form of a colored relief of the Virgin Mary under a sheet of heavy glass in an enameled brick frame. The church windows are unusually small and divided up by small astragals into tiny square panes.



In these villages, it is very rarely indeed one comes across a single-story dwelling house. The usual type is two stories with attic. The front portion is reserved (top floor and ground floor), for the household and the rear for live stock and loft. A somewhat peculiar feature is the inclined gangway from the front of the dwelling houses to the rear of the top story. This is about 5 or 6 feet broad, and it is quite a common sight to see little Russian ponies pull their loaded droskis up these steep inclines to the loft.

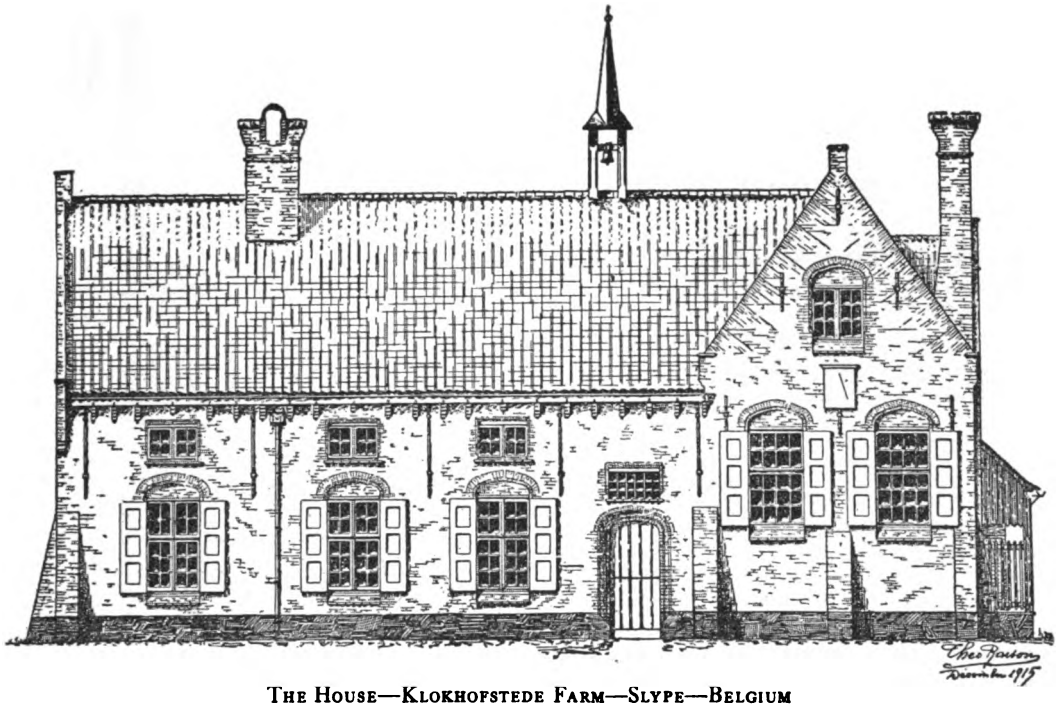
The houses are all alike, but differ in finish and details. The better class peasants have the facades lined and colored—generally yellow or white, with pilasters oftimes peculiarly panelled, and decorated with extraordinary color schemes of a diamond shape nature. A peculiarly ferocious lion rampant with collar and chain quite commonly figures on the gables. Sometimes the date of building is added, but this is unusual.

The roofs have very much the same pitch as our own but the eaves project about 2 feet 6 inches beyond the wall-heads. Internally, the rooms are considerably more commodious than the British, French or American working-class homes. Twenty-five feet by fifteen is a common size. The apartments open off a central lobby by doorways, which are only some 5 feet clear in height for in all cases, the sill of the partition runs across the doorway, a rather objectionable feature in a country where "six-footers" are in the majority! The rooms have enormous brick fireplaces projecting about 6 feet 6 inches from the walls, reminiscent of furnaces. These fireplaces are flanked by panelled bed positions about 3 feet from the floor. The space under is utilized for wood, fuel, etc. Decorative motifs such as flowers, animals, etc., frequently adorn the cupboard doors.

The Russians believe in having plenty of windows—fixed and casements—to their rooms. The casements opening outwards are very like our own in general detail. Wallpaper is practically unknown. In one or two cases only were the rooms papered. In nearly every instance, the walls are left untouched, exposing the moss packing. The corners of the apartments are usually rounded off. Ceilings are plastered and plain cornices are common. Fixed seats about 12 inches broad run around each room, and at some 5 feet from the floor broad shelving on strong brackets encircles the apartments.

No pictures grace the walls and such furnishings as carpets, linoleum, etc., in contrast to peasant France, for instance, are conspicuous by their absence. The French peasant sands her ruddy tiles or brick floor daily; the Russian housewife merely throws a bucket of water over her wooden boards. Apart from a table or two, the Russian peasant possesses few articles of furniture. Some are the proud owners of chairs, and a Singer Sewing Machine has now and again been encountered, but these are luxuries. Clocks are a rarity, but curious to relate, watches are pretty numerous.

Water is drawn from timber lined wells of great depth by windlass and wood bucket and on the hottest day (in summer the heat is extreme) it is icy cold. The villages have plenty of wells and the water is of fair quality and free from contamination. Sanitation is primitive and about on a par with some districts in France. Every house has a bath-house erected at the foot of a "Katoska" patch, built of logs and containing two apartments. Every Saturday, bathing takes place *en famille*, in a temperature which can be mildly described as unpleasantly high, a huge fire being kindled in the furnace three or four hours beforehand.



THE HOUSE—KLOKHOFSTEDE FARM—SLYPE—BELGIUM

Reconstructing the Farm Buildings of Belgium

Now that the whole world is casting an anxious eye upon the land it has so long ignored—upon the farm and the farmer it has so long disdained—we may perhaps regard with fresh interest, and even with a belated respect, the simple traditional architecture that arose in Flanders. We may reflect with some humility, if we will, upon that daring conception which was to rob the North Sea of its long domain of swamp and morass, and with a patience and skill of which modern engineering may still take note with generous appreciation, fashion that fertile land whereon were to take place those epochal battles for liberty out of which emerged the principle of political democracy.

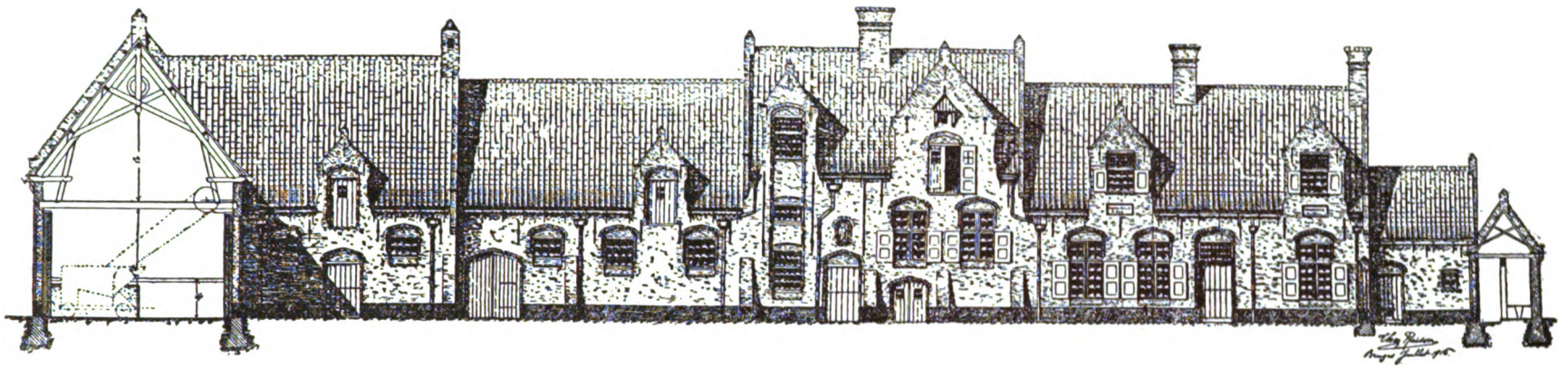
No land can bind us with a deeper spell, if we will survey it with a full knowledge of all that has grown out of its development. In art it holds its shining place. In industry, science, social progress and the humanities, it may lift its head high. The war brought its accompaniment of an injustice which we cannot contemplate without an almost burning resentment. In its wake there now lie immense problems. A vast part of its agricultural area has been reduced to a dismal waste of shell-hole and trench. Architecture has suffered not only the loss of Louvain and Ypres, but the complete obliteration of thousands upon thousands of those minor structures which once lent such a human note of charm to the attractive picturesqueness of old Flanders, as it pursued the tranquil peace of that summer of 1914.

Those who have had the good fortune to wander slowly over that countryside can never forget the outward appearance of that peace. Houses and gardens, towns and villages, highways and byways, cleanliness and order, industry and frugality—these have never elsewhere been more evident in the sheer simplicity and sober strength developed in the domestic architecture of a race. Messieurs Alfred Ronse, Municipal Councillor of Ghistelles, and Theodore Raison, Architect of Bruges, have gathered together in picture and in narrative, the story of this land as it has been told in the farm houses and farm buildings that were evolved to meet the habits and customs of those who dwelt and worked therein. It is a moving tale.* It is an architectural record too long relegated to oblivion. Before our modern world can hope to emerge from the problems that now beset it, there must be restored to it that love and respect for the soil which, supplanted as it has been with the mad passion for wealth through mechanized industry and the consequent contumely heaped upon the heads of those who literally carry the world on their backs, has disappeared and left us face to face with a world which can no longer feed itself—where starvation is already taking an incredible toll.

Whatever we may have learned of the serfdom of the old farms—for all was not peace and happiness within their confines, as Pelle the Conqueror has told us, it is there that the problem of civilization begins. We may delude ourselves into believing that its heart is in our towns and cities—we may applaud the sinister increase in population which lulls us into the belief in a false prosperity—but finally we shall discover that every nation which has ignored the land as the source of all wealth, has perished in miserable degeneration. Nature's laws are simple. But they are not to be denied.

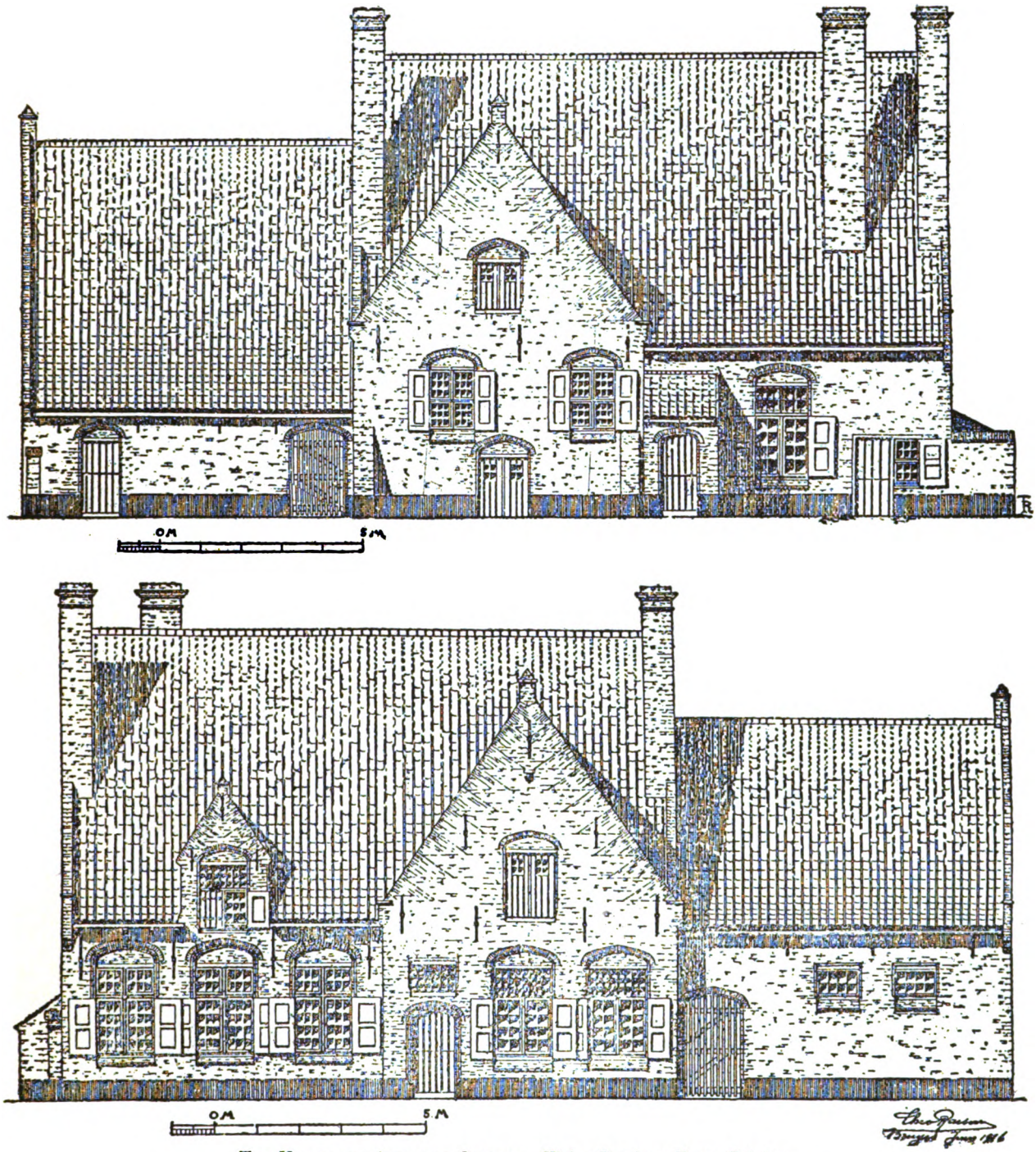
—C. H. W.

*Fermes-Types et Constructions Rurales en West Flandre par Alfred Rouse et Theo Raison, Bruges, 1918. Charles Beyaert.

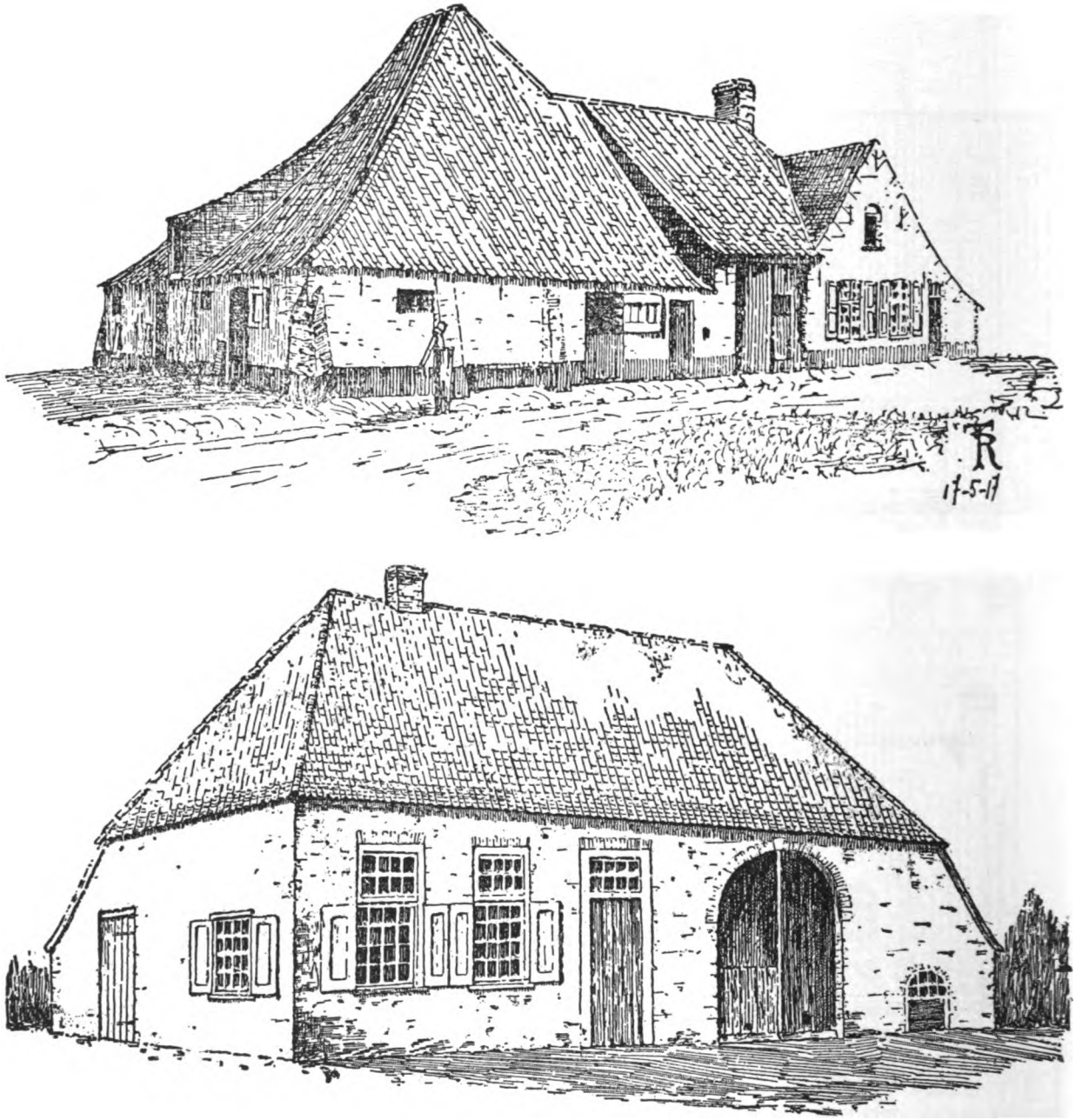


PRINCIPAL FACADE—THE BUILDINGS ON THE KNUYDTSWALLE FARM AT SCHOORE, BELGIUM

PRINCIPAL FACADE—THE BUILDINGS ON THE LIEBARTSWAELE FARM AT SCHOORE, BELGIUM



THE HOUSE AND ATTACHED STABLES—Kleine Bamburg Farm, Belgium



ANCIENT TYPES OF FARM HOUSES—Belgium

THE FARM HOUSE AT TEMPLEHOF, SLYPE, BELGIUM

"An Industry Cleared for Action"

*The Preliminary Prospectus of the Guild of Builders [London] Limited

"We are convinced that what we can see others can see, and nothing will persuade us that the world is not ready for an ideal for which we are ready."—A. MAUDE ROYDEN.

"The Meaning of the Guild."

"In industry those who work with their heads and those who work with their hands cooperate to produce the things which all of us need. If conflict and disunion take the place of cooperation, wealth production is hindered and everything the community requires is rendered less abundant and more costly. To secure this harmony of interest is the master problem of the modern industrial state."

"We stand today at the beginning of a new period of economic history. The great Trade Unions—no longer mainly defensive and resistive—are awakening to a new conception of their functions; a new vision of creative service. And the Building Industry of England will be the first great staple industry to put this new conception into practical shape in the form of the Guild of Builders.

"A Guild is a self-governing democracy of organized public service. It is the very embodiment of the 'team spirit.' In its full development it means a whole industry cleared for action, with all sections united for a common purpose—with a new incentive—the organized service of the community, instead of the attainment of profits.

"It boldly challenges the industrial traditions of a century, and makes its appeal solely to the best instincts and creative impulses of men For it is the first industrial organization in history that is set up to *give* service rather than to *get* it. Every word that Ruskin or Mazzini uttered on the claims of Duty and the joy of self-expression in free service, finds its echo here. This is the soul of the movement. It stands on a different plane from all other industrial systems, whether controlled by the State, by Municipalities, or by consumers. They are the organization of *Rights*. Guilds are the organization of *Duties*.

"The Call of the Guild."

"It is always possible to enroll the best men on the side of the best idea."
—THE VENTURE, *April, 1920.*

"Rightly planned, a Guild will be the finest piece of industrial organization that we have yet seen. It will summon to its aid the very best ability and talent that our industry can offer. Administrators—Technicians—Mechanics—Workers of every type will volunteer for its service, without thought of monetary gain; conscious that they are entering upon one of the greatest tasks in history; conscious that it needs them and cannot do without them.

"The Structure of the Guild of Builders (London) Limited."

"The Trade Union Ticket is the certificate of Guild membership. Every member of every branch of the National Federation of Building Trade Operatives and of every other approved group of Building Trade Workers in the District is a Guildsman and has a vote in the election of the Guild Committee. This, in turn, will ultimately form a part of the National Guild of Builders—a great industrial combine for the public service—with full democratic control by all the workers by hand or brain engaged in that service.

"The Guild Committee"

"The Guild Committee, therefore, will consist of representatives elected by the following Trade Unions or approved groups within the District:—

(*a*) The Trade Unions affiliated to the District Section of the National Federation of Building Trade Operatives.

(*b*) Any other Trade Unions or groups of Building Trade Workers within the District, whether Administrative, Technical, Clerical or Operative, that may be approved by the Committee.

Each Trade Union or approved group will elect One Member.

"When there are several Local Committees operating in the District, each of these Local Committees will be represented on the Guild Committee. In this way we shall secure an elected Executive Committee chosen by Districts and by Crafts.

"The Legal Entity."

"Each of these members on election will take up a One Shilling Share in a Society registered under the Industrial and Provident Societies Acts, 1893–1913, and entitled 'The Guild Of Builders, (London) Ltd.' He will also deposit with his electors a signed, open transfer, thus giving them power to replace him at any time. In this way the Guild Committee becomes a legal entity with power to enter into contracts, and yet the whole of its members are under the control of the industrial democracy they represent. If any Union or Group fails to elect its member by the appointed day, such member may be co-opted by the Society in General Meeting.

"Objects of the Guild"

"The first and immediate duty of the Guild is to mobilize the necessary labour to build the houses so urgently needed by the nation, and to build them in the best possible manner and at the lowest possible cost.

"The objects, as stated in the Draft Rules, are:—

1. To carry on the industry of Builders, Decorators and General Contractors.

2. To undertake all branches of supply, whether as Merchant, Manufacturer or Transporter.

3. To carry on any other work which the Society may think necessary or desirable in connection with the above objects.

"From this it will be seen that the Guild is designed ultimately to undertake every branch of the Building Industry, and to provide its customers with the services of skilled architects and engineers, to purchase and manufacture the materials, to transport them to the site, erect the buildings—and even, perhaps, to furnish them.

"Democratic Control in Practice"

"The Guild Committee will be responsible for the appointment and removal of managers, and for the fixing of

*Issued by The National Federation of Building Trade Operatives (London District Council), 9, Rugby Chambers, Chapel Street, W. C. 1, London.

their salaries. It is important to notice here the difference between the Guild practice and that of the self-governing workshops which have so often been set up without conspicuous success. The manager of a self-governing workshop is responsible to his own staff. The Guild Manager, however, is responsible—through the Guild Committee—not only to his own staff, but to the whole of the organized Building Trade Operatives in the District. This gives him security without weakening the full democratic control by the workers.

"Remuneration of Guild Committee"

"It is suggested that members should be entitled to subsistence allowances, and compensation for lost time and all expenses.

"Powers of Appointed Managers"

"Whilst it is generally agreed that large powers should be given, it is recognized that this is a matter for the Guild Committee itself to decide, and does not therefore come within the scope of this prospectus.

"The New Status of the Guild Worker"

"The labour of Guildsmen will no longer be regarded as a commodity like bricks or timber, to be purchased, or not, as required. *As soon as it can be arranged*, the Guildsman will be 'on the strength' for life. He will draw Guild pay in sickness or accident, in bad weather or in good, at work or in reserve. The minimum Guild pay will always be the full standard rate as fixed for the industry as a whole, but there is no doubt that the Guild will be able to increase the purchasing power of its member's pay by the scientific organization of production.

"Building Contracts"

"The Guild will undertake work for every type of building owner, whether public or private. It will build for agreed prices or for prime cost plus a fee. But in every contract the price for the fee must include the percentage necessary to secure, during its run, to all engaged thereon, the continuous Guild pay described in the last paragraph. Beyond this there will be a small percentage for the purchase of plant, for overhead charges, and, if necessary, for the hire of capital, at fixed rates, without powers of control.

"Organized Public Service"

This is the watchword of the Guild. It means that its surplus earnings will under no circumstances be distributed as dividends. This is a fundamental rule. Surplus earnings will always be used for the improvement of the service, by providing for increased equipment, for reserve, for technical training and research, and for the elimination of hired capital.

"Ownership of Plant and Material"

"It is intended that all plant and material shall be transferred to the properly constituted authority to be set up in connection with the National Guild of Builders.

"Craftsmanship"

" 'We shall do work worthy of the Middle Ages,' said one of the Manchester Operatives to whom the Guild owes so much, and he was right. The Guild stands for the revival of the Building Art. It will offer scope to the craftsman such as he has never dared to hope for. It opens out possibilities of service to the skilled administrators and technicians that the old system could not possibly provide. And it gives them all a new status as free men, working in a democratic comradeship of service.

"Financial Guarantees"

"The Guild will give no financial guarantee for the performance of its contracts. It pledges itself to carry out the work that it undertakes, and it supports this with a roll of volunteers pledged to do the work. This is the most effective guarantee that can be devised.

"The Call for Volunteers"

"A form of enrollment will be found at the end of this prospectus, and all Building Trade Workers of every grade are invited to sign it, and at the same time to subscribe to the JOURNAL of the Guild, and to the loan for preliminary expenses.

"The Journal"

"THE GUILD JOURNAL is an essential feature of the scheme. It will keep all the Guildsmen informed as to the progress of the movement. It will follow closely the proceedings of the Building Trades' Parliament before which the Guild proposals will be frequently debated. It will illustrate the buildings erected by the Guild, describe new methods and new processes, circulate statistics, publish correspondence, and, above all, it will be recognized and read by the public as the official organ of the New Industrial Democracy.

"Will the Guild Work?"

" 'No one who has ever risen to any great height in this world has refused to move until he knows where he is going. Here is the great spiritual weakness of our time: we have lost sight of the venturesomeness of Faith. But somebody has got to break away—somebody has got to break the spell of things as they now are, if we are not to go on in a cycle of increasing tragedies. How can we go without knowing whither? How can we lose without seeing any acquisition?' "

" 'If Columbus had reflected thus, he would never have weighed anchor. It is madness to sail the sea without knowing the way; to sail the sea no one has ever traversed before; to make for a country the existence of which is a question.'

" 'But with this madness, he discovered a new World.' "

EDITOR'S NOTE: The Guild movement has undoubtedly been greatly stimulated by the collapse of the Government's housing program in England. "Has any Government ever collapsed so ingloriously before an urgent task?" says the London Nation. "Mr. Lloyd George and Mr. Asquith both see no alternative to bureaucracy except 'private enterprise,' and their specific has been tried for the housing difficulty with the results that are familiar to us all. We are now to see some experiments based on a different analysis of human nature. They will be watched by all who realize to what a plight mankind has been brought by the play of those motives which seemed to the old economists, and still seem to our rulers, the only available springs of human energy.

"The complete collapse of the Central Government before a plain and urgent task has been followed by the awakening of local consciousness and the readiness on the part of local authorities to try new departures. An industry in which chaos and complexity were conspicuous has taken steps to organize itself as a public service, and as it happens this industry is at the moment the most prominent in the public eye. To those who are looking with interest and sympathy to the new ideas of democratic thinkers about the functional organization of society, both these developments have a special significance."

The numerous building Guild developments that have sprung up all over England are all based, as is the London Guild, upon their ultimate amalgamation in the National Building Guild. The Guilds are of course still handicapped by high prices for land and materials, and lack of credit, but it is not at all unlikely, as we are advised, that an arrangement with the Cooperative Societies may go far toward removing some of these difficulties.

What did the Post-War Committee Accomplish?

OPINIONS will vary as to the value of the service rendered by the Post-War Committee. The variance will be founded, one would assume, upon those divergent attitudes, the first of which inclines to the quick search for practical remedies, while the second recognizes that no task is ever finished in this world and that change is a ceaseless process.

The conclusions of the Committee, in its report to the last Convention, speak very frankly. They are neither apologetic nor boastful. They recite very truthfully certain conditions of immediate moment and others that we shall always have with us.

"The labors of the Post-War Committee on Architectural Practice," says the report, "were commenced at a time when normal industry in the United States was still paralyzed and when employment in all the pursuits of peace was still at a very low ebb. Architects throughout the country were largely unemployed and the future was fraught with many uncertainties. The appeal of the Post-War Committee, therefore, calling attention to some of the more patent professional ills, brought an immediate and general response."

"Instead of serious depression in business and general unemployment, however, that many anticipated, business increased by leaps and bounds until by the fall of 1919, the business problems of architects became such as to require their entire attention. Just in the ratio that these problems increased, the interest as expressed by the activity of the local Post-war Committeeman increased, until during the past few months the work of the Executive Council has been greatly handicapped."

"In this connection the Committee is regrettably led to the conclusion that architects do not actively interest themselves in the problems concerning their profession except in times of depression. Then they turn to their organization for help and suggestions through which they may meet the problems incident to depression, only to find that they themselves have neglected to help their own organizations in the task of preparing for just such emergencies."

No officer of the Institute will dissent from that comment. May it bear fruit in stimulating that active interest which understands that the Institute is precisely what its members make it. No more—no less.

The Summing Up

In recording its own achievements, the Post-War Committee points to these things:

(*a*) It has received and tabulated under subject headings a mass of opinion, suggestion and criticism from individuals and societies bearing on various phases of the problems confronting the Architectural Profession. Lack of funds has prevented the general distribution of a digest of this material.

(*b*) It has established a point of contact and machinery for cooperation between the Architects and Engineering Council.

(*c*) It has established a definite basis for cooperation between Organized Labor, Building Contractors and Engineers. This probably being the opening wedge to a broader cooperation and more sympathetic understanding between these great elements in the Building Industry.

(*d*) It has laid the foundation for a closer association with the Building Industry through participation in the Conference of the National Federation of Construction Industries.

(*e*) It has placed an argument for Registration of Architects, together with practical data on Registration Laws—mode of procedure to secure such laws, etc.—in the hands of individuals and organizations in practically every State in the Union.

(*f*) It has placed the question of the organization of State Societies, together with an outline of the experiences of States having such Societies, and also a form of Constitution and By-Laws, in practically every State in the Union, through the membership of the Post-War Committee.

(*g*) It has probably started a larger body of Architects thinking concurrently along formulated lines of study than ever before.

(*h*) It has developed a form of organization that has many features to recommend it as a workable machine for carrying on educational effort of national scope. A chart is attached hereto.

(*i*) It has developed through the effort of the special Post-War Committee of the Washington State Chapter a chart indicating desirable fields for the investigation in the study of problems affecting the Profession of Architecture.

(*j*) It has laid the basis for an international professional relationship, by correspondence and interchange of documents and information. This relationship has taken an

active form through the creation of the Institute Committee on Foreign Cooperation, and the Post-War Committee hopes that this work may be prosecuted with vigor as part of the basis of a new and more tolerant relationship among all nations.

(*k*) It has established relationship between the various Professions through the formation of the Inter-Professional Conference.

Subjects for Further Study

It suggests as subjects worthy of further study, the following:

1. What should be the function of the American Institute of Architects?

(*a*) A national organization of the Profession and a direct factor in economic and social life, or;

(*b*) A dignified Academy attainable only by a few, and dealing only with the internal Ethics of the Profession?

2. What should be understood by the term Architect?

The public should know the circumscribed field of the Architect's legitimate activity, just as the public knows that of the Doctor and the Lawyer.

3. The desirability of giving local chapters of the Institute greater authority in formulating Rules of Practice for the guidance of their members, more in conformity with established custom in a Locality.

4. As related to creating sentiment in favor of Registration Laws. To set up a standard of what a man should know and be competent in before he enters into practice as a Principal.

5. Parliament of Building Industries.

6. The entire subject of relationship between Architects and Draughtsmen.

7. Methods of organization of an Architect's office to render complete service.

8. The value of dignified publicity after a definite policy and a definite meaning of terms have been established.

9. Remuneration for Architect's service:

(*a*) The Percentage System.
(*b*) Cost-Plus a Fixed Fee.
(*c*) Other Methods.

10. Expense of estimating:

(*a*) Quantity Survey.
(*b*) Contractor's Bureaus.
(*c*) Commercial Bureaus for Member Contractors.

11. Schedule of charges, to provide for Complete Service omitting reference to employment of Specialists, Clerk of Works, and data to be furnished by the Owner.

12. The Executive Council believe that the work of the following Committees should be continued:

(*a*) Inter-Professional Conference.
(*b*) Registration.
(*c*) State Societies.
(*d*) Related Interests.
(*e*) Improvement of Service.

The Committee closes its report as follows:

The Building Industry

It is manifest that no study of the Architectural Profession can ignore the building industry as an economic machine. This varied and far ramifying activity touches life at myriad points. The point of departure, however, would seem to be a study of the actual process of building, as dissociated from the manifold processes of transforming raw materials into building materials, and which is associated with the specific process of construction. The importance of the contributing processes is not minimized, and the segregation is suggested only as a means of confining the preliminary study within a definite field.

But aside from the process of construction, involving architect, contractor and workman, there are two other vital economic elements which enter into the problem. These are land and credit. No study of the constructive progress can make any headway without envisaging these two elements. Buildings must rest upon land. Almost all buildings are dependent upon a supply of credit. The part played by these two factors is large and their control over building enterprise is not diminishing.

Land

The land problem is difficult of discussion because it immediately calls in question the right to its use. But this right, which is constitutional, has become much more abridged than we are apt to remember. Quite aside from certain restraints exercised under police powers, which are gradually being amplified through a broadening consciousness on the part of the courts, there are other abridgements in the form of zoning laws, for example, which are more and more constantly being urged. Gradually it is being recognized that land ownership must assume and bear its communal responsibility. The specific case of housing, of which there is now an acute shortage all over the world, is forcing attention upon the evils wrought by our present system of land speculation which is stimulated by the desire of the speculator to enrich himself at the expense of the community. He seeks to appropriate that increment which is earned by communal action. In doing this, he automatically puts up the cost of housing without offering any service in return. There are legitimate profits in land development to which no one demurs. It is the illegitimate profits taken through the rise in building site values, to which an increasing number of men are beginning strongly to protest. Witness the recommendations of the Reconstruction Commission of the State of New York, in the legislation suggested through which land increments shall revert to the community creating them, a recommendation urged upon Congress by the Board of Directors of the American Institute of Architects in connection with the war housing operations of the Government.

This principle, the private appropriation of land increments, almost universally prevailing, tends to defeat the prime function of architecture. It forces a competition in buildings, in which the rising cost of land must be met by a lowered cost of building, or by continually increasing the volume of building on available sites. Commercially, the effect of these is anti-social as well as anti-architectural. Indeed, the one is the corollary of the other, for architecture is primarily a social implement of service. Cheapening the cost of building is disastrous. Increasing the volume of building on given sites in order to earn a return on a higher land value produces an intense and unprofitable congestion, both in residence as in business. It sets up an

abnormal condition involving not only slums for the poor but a host of problems in transportation and the application of public utilities, while it has seriously affected realty values, as in New York City.

Thus the land problem is basic in architectural progress, in evidence of which there may be cited legislation and activities throughout the world, all leading toward a more and more complete control of land use by the community for the coming welfare of all.

Credit

The study of credit is an arduous task. The difficulty is rendered more serious by a general unwillingness to consent to its study. Yet it has become very largely the determining factor in human enterprise and those who wield its vast power should bear the same degree of responsibility that lies upon the ownership of land. That they do not do this is evidenced by the housing question. Credit for housing is not forthcoming. Money flows into other channels, where the taxation is less or the profits greater, or both. This indicates that credit does not function primarily to permit the production of necessities but for the purpose of earning profits. A very grave and serious question is thus raised. Who will furnish money for houses?

But this question vitally affects the progress of architecture. If credit will not function except at a profit, then architecture must be subsidiary to profit. This is what has happened in housing. It has been happening for many years, for architecture has been utterly unable to function in the interest of millions of badly housed men, women and children. Today, it is even more helpless, because those who control credit do not find it profitable to lend credit for houses. In this situation there is a great social problem involved. Other nations have accepted the burden which private credit has thrown down and have lent the credit of the State to promote house building. Latterly in the face of an emergency which the use of State credit has quite failed to remedy, they have gone so far as to grant a direct money subsidy from the national treasury toward the building of houses. Thus it is evident that the power of credit has a great deal to do with architectural progress. The question must be studied without prejudice.

The Construction Process

In the underlying philosophy of the actual building process, there have been remarkable developments in England. The report of the Committee on Scientific Management and Reduction of Costs, to the Building Trades Parliament, has now become an historic document. It is perhaps the most illuminating contribution which has so far been made to the philosophy of industry, because it has the great merit of having emanated from the joint councils of a group composed af an equal number of representatives of both employers and employees. The report in question has been summed up in the JOURNAL. Briefly, it may be said that its signers recommend that the building industry of Great Britain be transformed into a public service.

The Committee, upon which there was no representative of the architectural profession, engaged itself in a dispassionate analysis of the economics of the industry they served. They took account of all the elements entering into that industry and discussed them as men seeking a solution based upon the welfare of all society. Their recommendations for achieving the proposed transformation were based not alone upon economic considerations but also upon factors vitally affecting the esthetic advancement of architecture, such as the effect of stimulating and making possible a revival of the craft of building.

Briefly, they proposed that the present capital invested in the industry should be fairly valued and entitled to receive, out of the profits of the industry, an annual dividend equivalent to the interest rate on Government securities. That a portion of the profits should be set aside to provide an insurance fund against unemployment; another portion to provide a superannuation fund; and the balance to be used for advancing the industry through scientific research and also to provide the new capital necessary to its progressive enlargement. The plan is now before the Committee, to which it was referred back by the Parliament, with suggestions for further study and revision.

Much influenced by this report, although not actually growing out of it, the Building Guild which started in Manchester, England, offers another example of the application of the principle of public service to industry. In the face of the housing disaster which has overtaken England, the Bricklayer's Union of Manchester invited other trades to join with it in the establishment of a Building Guild which should undertake the whole burden of building some of the thousands of houses now needed by the city of Manchester, which should furnish the necessary credit. Such a *Guild has been formed, and already it has been enlarged to include, through representation, more than 100,000 workers. It has made tenders for building houses, one of which tenders has been accepted by the community.

The significance of these movements lies not in the immediate results to be observed, but more largely in the spirit which animates them. This cannot but indicate a tendency toward the transformation of group consciousness, in which the economic motive of gain is at least balanced by a realization of the fact that neither employers nor employees can save themselves at the expense of society. More than that there is ample evidence to prove that workmen do respond to the idea of assuming responsibility for their craft; that they eagerly welcome a program which promises them a free outlet for their creative instincts of craftsmanship. And the evidence which comes from England is corroborated by the experience of the members of the Philadelphia Chapter with the Bricklayers of that city, an account of which has also appeared in the JOURNAL.

The Craftsman

That the building industry is peculiarly fitted to be the pioneer in working out a solution of the present economic impasse, is very true. It does, in most of the operations involved, embrace opportunities for individual craftsmanship such as are not found in the more highly mechanized industries. All through the process of building there run streams of craft tradition, the vitality of which it is essentially necessary to preserve. But this very preservation

*See the account of the London Building Guild on page 266.

will enhance not only the quality of architecture and the joy of being an architect, but also the quality of the lives of those who gain their livelihood through producing buildings and of all those who dwell within their walls. If modern psychology teaches anything of value, it is that the repression and suppression of the creative instinct, in order to gain a mechanized efficiency in volume production, is fatal to the welfare of society. Work, to be made really useful, should ennoble the worker and not deprave him.

Therefore the developments of the building industry in England should be studied with an open mind. Similar studies should be made in this country, and the Post-War Committee strongly urges that members of the profession in the United States approach these questions wholly without prejudice and with an ardent will to help in finding the best solution of the many questions which now vex and complicate the building industry. In the right solution of those questions there will be found as well the right solution of the problems of their art.

Book Reviews

The Practical Book of Interior Decoration.

By Harold Donaldson Eberlein, Abbot McClure, and Edward Stratton Holloway. Philadelphia and London: J. B. Lippincott Co. 1919.

During the last ten years or so, with ever increasingly good results, the art of interior decoration has been much practiced, discussed and studied. Of late there is evident an effort to reverse this cart-before-the-horse method, as shown by the publication of many books on interior decoration. To these "The Practical Book of Interior Decoration" is a valuable contribution.

But to teach this art in the classroom, or in general, by means of text-books, is scarcely practical for it is pre-eminently an art which must be studied at original sources and taught, so to speak, in the field, whereupon certain defined principles, experiments *ad lib.* may be made and their results studied. If books are to be used, they must be of the highest order, the product of the most disciplined thinking, and must be written in a style so seriously considered that they themselves will be works of art. This is not said to be sententious, but is a simple fact, because only such will be so vital, so shorn of all superfluous advice and of unimportant matter as to carry over to the student, through the mass of detail and through the many contributing factors of interior decorating, the underlying and essential principles of decoration, and to awaken in him the perceptions which will enable him to apply them.

"The Practical Book of Interior Decoration" is a mine of information, a collection of valuable illustrations, and the exponent of sound principles. The historic periods are admirably dealt with and in great detail, although in this section the use of illustrations of modern rooms as examples of historic periods is deprecated. The actual writing of the book, however, is weak. The arrangement into divisions and subdivisions, and the effort to correlate these different parts with continual references, even to a second book, has been carried to such an extent that the information to be conveyed has been more often lost in the transition than found, even as it was in that famous history where, though the search was faithful, the find was slight:

> "Q is for the Queen so noble and free,
> For further particulars, look under V.
> "V is for Victoria, so noble and true,
> For further particulars, look under Q."

The book would have been doubled in worth, its information twice as available, its lessons far more telling, had it been halved in length.

—M. H. C.

Architectural Water Colors and Etchings of W. Walcot—Technical Journals, Ltd., London, 1919.

Studying the work of an etcher or water colorist by means of half-tone reproductions is at best an unpalatable job, and yet few architects could fail to feel the thrill of a master hand as they turned the pages of this book. The work of Walcot is all too little known on this side of the Atlantic, and we are not likely to be endowed with any abundance of it in the near future, for it is still too eagerly sought in his own land. All the more reason, perhaps, why we must welcome this opportunity of becoming better acquainted with an etcher of extraordinary power and a water colorist who is described by Mr. Newton as a "master-adventurer."

In spite of the sensible diminution in graphic quality resulting from half-tone plates and a printing-press, we are none the less moved at the mastery of architectural rendering possessed by Mr. Walcot. A trained architect, and therefore "perfectly well understanding what he is drawing and painting," as Sir Reginald Blomfield says in the Preface, he brings to his work a technique of great brilliancy, a love of pageantry, of life moving in the flood and not in quiet brooks. In "The Wonder of Babylon," for example, or "Antony In Egypt," or "The Trojan Horse," there are flights of imaginative daring which only a trained architect could take successfully. Even more exquisitely beautiful is the "Tragedy by Sophocles," set in the theatre of a Roman imperial villa; the "Atrium" in the house of a patrician; "A Court of Justice," which as the text tells us, is a fanciful reconstruction of the great Basilica of Constantine; the "Forum" of Rome, the "Performance at the Colosseum," the "Baths of Caracalla," all time-honored subjects and now freshly revealed to us through the eyes of one who sees not as the archaeologist but as the interpreter of the civic spirit of a great epoch, as the architect to whom the language is still living.

There are several reproductions in color, numerous essays and descriptive texts by architects and painters, and an excellent and most comprehensive index.

—C. H. W.

The Reconstruction of Rheims

It seems evident that the difficulties of making a plan for the rebuilding of Rheims are giving rise to serious criticisms of the schemes proposed, as is indicated in the following translation from articles which have recently appeared in the *Courrier de Champagne*, a newspaper devoted to the welfare of the historic city.

"We have already stated," says the *Courrier*, "that the parcelling-out of the city centre arranged for by the new plan of reconstruction, the Ford plan, is productive of opposition. Yesterday, in the *Rheims Independant*, M. de Mun, former deputy and member of the Chamber of Commerce, wrote on this same subject:

"'In February, 1920, sixteen months after the Boches had abandoned the approaches to Rheims, a new plan for reconstruction is exhibited in the hall of the Rue des Augustins. The year 1919 therefore was lost for the definite inauguration of this essential task; it is regrettable. Will it be so with the year 1920? That would be disastrous. The plan worked out in 1919 was the product of long research and minute study. Local authorities, architects, and builders had been heard. From all this resulted a project wherein an attractive, truly interesting conception had little by little been sacrificed to the exigencies of reality, maturely considered. It may have left some things to be desired—quite possibly. Such as it was, this plan received the approval of the city, and the war-sufferers believed themselves thenceforward free to set to work; they made that very plain.

"'Unhappily, the plan came to grief, and was sent back for further study in relation to the periphery of the city. The possibilities of utilizing the vast periphery of a great city where space is free and clear, where the execution of a plan may extend without inconvenience through a long stretch of years because there is no immediate need, offer the most varied combinations. Permission was given to invent new ones. But on the other hand, it was declared more than ever essential to safeguard all that had survived the Boche attacks, and especially the centre of the city. People insisted on that. The new study was authorized by the Cooperative Society of Reconstruction, which undertook the responsibility, and handed over the execution to an American architect. If you wonder at this choice, they will reply to you that a foreigner is not hampered by local ideals! Evidently! He who was chosen by them, moreover, passes for a cultivated and distinguished city-planner (urbaniste).

"'A month later, the new plan, known only to a few of the initiated, was officially approved, and on the 23rd of February it was exhibited in public. I will limit myself to stating that it was received with stupor. The citizens of Rheims, lost in mute contemplation before the red sketches of demolitions displayed in the Rue des Augustins, suffered a 'solar plexus blow' from which they cannot recover quickly. They came away dazed or exasperated, according to their temperaments. I shall not discuss the plan. I am neither a technician nor an 'urbaniste.' I merely seek an explanation of this general condition of stupor, and I think it is easy to arrive at.

"'There are two views which may dominate a plan of reconstruction for the city. One would make *tabula rasa* of the past, and assume that Rheims was in 1914 an uninhabitable city. Then—proceed to be intelligent and energetic, keep abreast of the times, and act 'a l'americaine'; profit by the sad occurrence which destroyed two-thirds of the city, pull down the remaining third and build an ideal city! Everything will then be parks and gardens, avenues from eighteen to thirty metres wide. The railroad will wind through the streets. Let there be no obstacle and no sentiment! If necessary, dig up the cemeteries—whose profanation by the Boche cannon distracted too many families of Rheims. No pity for the survivors! They have only to pack themselves off. Give no finishing stroke to the wounded! Such a reconstruction presupposes total demolition. As to the formidable costs which this program will entail, and the possibility of meeting them, these are considerations unworthy of such ideals.

"'The other view is characteristic of minds more devoted to realities than to chimeras. It grows from a supreme desire to add nothing to the misdeeds of the Boches; to utilize all that may still be utilized and which is today of immeasurable value; to preserve that which recalls a beloved past; to respect the deep feeling which passionately attaches the war-sufferer to his habits and his memories—and it is this feeling which commands him to repair his ruins for himself, by vigorous initiative, and despite the inertia of the public powers to throw new life into industry and production. . . .

"'The first view is that of a group of cultivated spirits, gifted with a charming fancy, delighted with this opportunity to let loose their creative imagination. It grows, this view, spontaneously among foreigners who but yesterday were not *au courant* of our complications, who are not disturbed by them today and will forget them tomorrow; in fine, it tempts infinitely, through professional enthusiasm, to great undertakings.

"'The second appeals naturally to the average citizen of Rheims in every class, who is chiefly anxious to make use as soon as possible, and on the foundation where he has lived, of what the Boches did not destroy—a precious treasure at present valuation; who has suffered too much in the recent past to wholly sacrifice the present to an uncertain future; who cherishes a natural skepticism concerning prodigious and distant hopes; who wishes at once to live, to reinstate his business, to work!

"'It is such a public that is now passing before the design exhibited in the Rue des Augustins. Where they were expecting an improvement of the earlier plan in the direction of safeguarding the survivals, particularly in the city centre, they find, on the contrary, an upheaval. Hence the condition of stupor.

"'I take no part in the discussion necessarily aroused by a project of such importance and involving such consequences. Presumably, the local authorities so numerous at Rheims will cause the voice of reason to be heard. I should merely wish at this time to recall what is imperatively dictated by a financial situation which may have incalculable results on the renewal of activity at Rheims, if those who handle the new plan have not taken it into account. A plan for the complete restoration of our city,

such as is presented to us, assumes as a first condition of its realization, the certainty of counting, in due time, on many tens of millions. If you doubt this, go, plan in hand, and study only a portion of the new project; and with the aid of an expert architect and contractor of the city, try to estimate the cost of laying out a mere section of a great new road, and all that accompanies it—conduits of all kinds; the disposal of the subsoil, which nearly everywhere in the centre is a source of untold complications; the dispossession of adjacent property—and you will obtain figures that cause you to think.

"'Who will pay for all that, and when? The city? That is not to be supposed, I presume. The Boches? One would not venture to say so. Besides, the Boches do not owe us the costs of innovations and expropriations. They owe us for the damage they caused; and unhappily we know how they have settled it up to the present time. France, then? Yes, that is what they say. They say it without warrant and without reflection, and the question is one that should be insisted on.

"'France, of whom we are a part, must face formidable expenditures, crushing debts. To meet them, she will need much energy, spirit of sacrifice, system and industry; by means of these, she will succeed. She has guaranteed the costs of war; I have every confidence. But I know, and we should all know, the cares and difficulties which are to be surmounted. That France, moreover, will soon find in her budget a gigantic number of millions for the innovations, transformations and embellishment of our cities—those who should say so would be cruelly making game of us. This is very well known, and we should not hesitate to repeat it, because it is a reality.

Higher Buildings For London

A Comment Based on American Experience

Judging from the paper read before the Royal Institute of British Architects by Mr. Delissa Joseph and the discussion which followed, London is getting all stirred up about skyscrapers. The question has been considered before, but the present discussion originated, as one might expect, in the Estate Market Column of the Times of January 1, 1920. Prior to the London Building Act of 1894 there were no restrictions in height of buildings except those imposed by the Prescription known as the Law of Light and Air. The Law of 1894 was urged because of the feeling against the erection of a number of high buildings adjacent to open spaces; it limited the height of new buildings to 80 feet with two superimposed stories in the roof.

What Mr. Joseph now advocates is a modification of the London Building Act to permit:

(1) Buildings up to 200 feet in height opposite parks, public gardens, open spaces and the riverside.

(2) Buildings equal in height to the width of a street when that street is over 80 feet in width, provided that;

  (a) the rear angle is within 63½ degrees of 16 feet above pavement level;

  (b) the structures are fire-resisting and fitted with staircases affording alternative means of escape, and

  (c) the elevations have been approved by the London County Council or the hoped-for Ministry of Fine Arts.

There are of course other more advanced proposals and some interesting suggestions. Mr. Martin Conway, e. g., advances this idea: "The only hope for London was that lateral extension in building should be stopped, and building higher resorted to. If he had his way, he would knock London down, acres at a time, he would leave large open spaces, and erect high buildings; he would lay the East End flat and set it upon end; he would build gigantic communal buildings 30 or 40 stories in height, housing hundreds and possibly thousands of people."

Little would here be gained by considering in detail the various suggestions offered. The subject of skyscrapers and an increase of congestion is now definitely "before the house." If one may venture a prediction as to what is likely to happen, it would be fairly safe to guess that sooner or later London will follow the course of American cities, notwithstanding the opposition of Professor Beresford Pite, Professor Adshead, and a few others who see the problem clearly.

At this stage of the discussion the reasons underlying the arguments in favor of change are a matter of far greater interest and importance than is the degree of congestion advocated or the height of structure it is proposed to erect. The Estate Market Column of the Times puts it thus: "The provisions of the London Building Act impose strong and perhaps desirable limitations as regards the height of buildings, but if accommodations must be found and lateral extension is impossible, the alternative of going higher may have to be faced." Too bad, but there is nothing to be done about it.

Mr. Joseph argues along these lines: "The act of 1894 is defective in so far as it is inelastic, and in view of the changed conditions which have arisen in the intervening quarter of a century, the time has arrived for a reconsideration of these restrictions." That is to say, I take it, that the "Law of Light and Air" made with the Common Welfare in view must give way to the financial exigencies of the moment. Am I correct? If there is doubt, note this: "The present pressure of accommodation in Central London must go on increasing with the growth of its trade and its population and with its continued development as the world's centre of business and pleasure, and the problem of how to meet the demand can only be satisfied by adopting the same policy as has been adopted in such cities as New York—that is, by vertical development."

Mr. Joseph is not an advocate of buildings exceeding 200 feet in height—*at present*. "I submit that London is not yet ripe for skyscrapers although it is over-ripe for higher

buildings than the present London Building Act allows." The question arises how long will it be before it will be "over-ripe" for what he advocates? At which point there enters the thought of the harvest of over-ripe, unearned increments which, by the way, throw light on how a "ripe" condition is determined. Something further with respect to what animates this discussion is revealed in: "I took the opportunity of emphasizing the fact that the development of Central London has not been adequately exploited, and that, if London is to hold its place as the world's centre some such development as had been outlined by me would have to be speedily undertaken." Precisely how this move would make the wheels of financial business revolve without necessarily accomplishing anything for the Common Welfare, is suggested in: "And the writer went on to point out that the increase in ground values in London would soon make it unremunerative to build except to increased heights." Stating this in terms of higher rent and a consequent increase in congestion, it is not at all clear as to what the common man would gain by it. Concerning the Common Welfare, Mr. Joseph has this to say: "The largely increased rateable value which would result could be capitalized and applied in the widening of congested thoroughfares." And: "The other uses of such funds which obviously suggest themselves are the further equalization of rates in the poorer boroughs, and the financing of housing schemes in the outskirts." But by the time new water and sanitary services and new transportaion systems have been provided to meet the needs imposed by the new conditions, there would not be much left over for the carrying out of plans of this sort.

If a Commission were to make an impartial inquiry into traffic conditions in the United States, without reference to the opinions of those financially interested in securing increments of value, I am of the opinion that such a Commission would not report that: "Higher fares, in short, will be another argument in favor of 'Higher Buildings (for London),'" or that "Building outwards will only increase the traffic problem and building upwards therefore is the only solution, and by the suggested upward building a new rateable value would be established upon which municipal loans could be raised and could be applied to the widening of congested thoroughfares in the inner metropolis."

At a time when it is notorious that the conditions of traffic and transportation and congestion are becoming intolerable in American cities where as yet but a small percentage of their area has been exploited for high building, when there is a growing conviction that the modern urban center is an unhealthy, abnormal thing, when in spite of these handicaps, the cities of the Western World are sucking into them the productive man power of the rural areas, when so much attention is being given to the problem of bringing about a redistribution of population in England, at such a time it comes with a shock that people in London, including so many of the architects, should advocate a policy which would augment this drift from bad to worse.

In America we know—at least some of us know—that the policy of centralization, congestion, expansion—horizontal and vertical, is riding for a fall. True, we have height and volume limitation but it is likewise true that those limitations are set at approximately the limits of "what the traffic will bear" with respect to that degree of congestion and inconvenience and discomfort which will be tolerated by a people. With but an insignificant percentage of our urban areas built over with high buildings, the problems of transportation and of providing what is spoken of as an ecomonic rent for the wage earner within these areas, have become impossible of solution. With evidence of the fallacy of it all staring everybody in the face, must the cities of England go through this experiment and continue to make an intolerable mess of things?

Observing this discussion at this distance, noting its setting and what animates it, certain things stand out clearly. One is not so much concerned with what is to be the decision as regards this or that detail of legislation; a city is obviously a place for people to live in. That is to say, a city has no valid reason for existing except as it satisfies those conditions which make for a reasonable degree of comfort and which offer no check upon the social and physical development of men. Now, in the discussion, except for the brief statements of those who were opposed, this phase of the matter was relegated to the background. Apparently what the advocates of change saw was the sweep of business enterprise. Changes were suggested—a greater density of population was advocated—not because such changes would result in making more people comfortable and healthy, not because they would thereby be provided with an environment in which they could lead a rational life—not at all. Change was advocated because it would be good for business.

One does not have to scrutinize this discussion very closely to discover what it is all about. The needs or requirements of the Modern Industrial System are stated; these needs and requirements do not coincide with the needs or requirements of the mass of the people—in fact they run counter to the whole trend of opinion with respect to the social importance of decentralization. But what of that? These needs of the system must be provided. Therefore the matter is rationalized to make it appear that human needs and financial exigencies really run in the same direction.

Here in this act of rationalization we have the present function of the technician exhibited with a fair degree of accuracy. The modern technician knows full well that his services are to a large degree used for the benefit of selfish interests. This pricks his conscience now and again. But he cannot afford, so he thinks, to run counter to the currents of financial business; so, he resorts to rationalization, fooling himself with the thought that he can make divergent forces work in harmony.

By debating what specific ordinances we shall pass, we make believe that we are guiding the development of our cities. Nothing of the kind happens; we draught whatever laws are demanded by the financial exigencies of the situation. Where no great harm to financial business is likely to result from the passage of an act carrying a worthy sounding purpose, that act passes. But no others pass.

For the time being, the outcome is dubious. Whether or not the peoples of the Western World may arrest the constantly accelerating drift of population into business and industrial centers, depends, not upon political action, but upon whether or not the social and industrial forces so shape themselves in the near future as to move in the direction of a redistribution of wealth. With a system of

credit which works in the direction of a centralization of economic power; with a constant piling up of vested interest; with a system of production operating through a system of price competition, piling useless service upon loss and loss upon useless service; with an ever increasing army of those engaged in performing these useless services consequent upon our system of price competition; with financial business sucking up our agricultural population—with all of this mechanism running at full speed—it does not make a great deal of difference what is said about the matter in terms of legislative enactments or in terms of aesthetics. Nothing can stay the sweep of financial business except it be an outgrowth of the enterprise itself. The outcome would be dubious indeed were it not generally apparent that the whole Modern Industrial System is breaking down.

True enough, there is not much that we can do about it for the moment, but there is always the resort to make-believe. We can if we choose sit like the small child—
—hands holding the reins—and think that we are guiding events.

—F. L. A.

The New School of Fine Arts at the University of Pennsylvania

Beginning with the fall term of 1920, no student in the University of Pennsylvania may qualify for an A.B. degree without taking certain work in the new School of Fine Arts. This announcement ought to create no astonishment, so logical and consistent does it seem, and yet when one reads at the end of the report of the Committee of the Faculty of Architecture that: "In no case has an American institution of higher learning yet established a comprehensive recognition of the arts." And that: "Such recognition is now proposed for the Unive sity of Pennsylvania in the foregoing plan for a School of Fine Arts," there does arise a certain sigh of relief.

From the Report of the Committee of the Board of Trustees we quote as follows:

"Since the organization of the Department of Architecture thirty years ago, its teaching has been governed by the principle that Architecture is a Fine Art, and this doubtless has been a determining reason for the position of leadership which it has held for some years among American schools. Recently its faculty and alumni have recommended an official recognition of this fact by its transfer from present classification as a branch of engineering, with a scientific degree, to independent status as a School of Architecture, with an appropriate degree. This recommendation has led your committee to a careful review of the position and possibilities of the Fine Arts generally in the University, both in respect to professional training and as a factor in liberal education."

"Such courses are well established, in Architecture and Music of the professional group, and in the history and appreciation of various arts, and in archaeology, as contributing to the liberal degrees of the College and Graduate School. To these must be added as an educational factor, the splendid collections and facilities of the University Museum.

"But these courses, scattered among several University divisions and admirably conducted as individual units, constitute no adequate recognition of the Fine Arts as a great cultural group. There is needed in the University a School of Fine Arts, of broad scope, founded on the conception that art is essential to life; that in its various manifestations in poetry and music, architecture, painting and sculpture it forms an integral part of the heritage of culture, the knowledge of which is essential to true education, and that if this heritage is to be handed down to posterity as a living force, the artist must be trained in its best traditions.

"The nucleus of such a school now exists in the University and a plan for its organization is attached to this report. To carry this plan into effect, we offer the appended resolution:

"BE IT RESOLVED: That a Faculty of the School of Fine Arts be and hereby is established in the University of Pennsylvania under the provisions of its Statutes governing Faculties and to have the organization, powers and limitations set forth in the attached "Proposal for a School of Fine Arts" insofar as these are consistent with the Said Statutes."

The report was signed by Messrs. John Cadwalader, Effingham B. Morris, Charles L. Borie, Jr., Chairman.

In its report of almost fervent approval, the Committee of the Faculty, composed of Messrs Paul P. Cret, W. P. Robins, and Warren P. Laird, Chairman, says:

"The great lack in American civilization today is the slight regard for the fine arts. A feeling that there is something superfluous in all culture is directed most intensely against the arts and an interest in them, or an appreciation of them, is greeted slightingly, if not with contempt, by the great mass of our native-born population, who feel that "art" is something apart from life, and that the great role it plays in the lives and thoughts of our foreign-born citizens is an amiable weakness, if not a sign of effeminacy. . . .

"But the college has also been at fault in not opening its doors to the artist and inviting him as such to complete his preparation within its walls. A single important exception to this rule must be acknowledged, but the act appears to have been inadvertent. Architecture, as one of the major fine arts, is today a recognized part of university organization, but it first seems to have been accepted as a species of engineering and apparently without suspicion of that ruling trait which later was to place it in a class by itself, for it is now clearly understood that the quality which distinguishes the course in architecture from those in letters or science is art.

"But artist and university have a broader responsibility toward the public in making art a part of the common life. We have asserted that education must be introduced into the training of the artist, but, equally, art should be made part of the education of the layman. No longer should it be possible for the college-bred man to be ignorant of art, of its place in civilization, its meaning in the past and its power to reveal to the mind a rich and noble vista of truth and beauty. The appreciation of art, at least a general knowledge of its history, and a discriminating taste in regard to its productions, should as certainly become part of the equipment of the educated man as an understanding of and taste for the classics, or an intelligent concept of the meaning of history, the functions of logic and ethics, or the nature of mathematics and the natural sciences. In no other civilized country may the man who pretends to be educated plead ignorance of this fundamental of culture, for in foreign lands generally not only is the love of beauty part of common life, but some knowledge of art is an essential of education.

"Until the University offers a comprehensive group of courses in the appreciation of art for the lay student, as well as recognizes by a scholastic degree the professional studies of the artist, its duty to the community is not performed. The first part of this proposition has in part been maintained by the Department of Architecture in the College and Graduate School, although without the prestige and influence which would belong to a completed series affiliated with cognate professional subjects in the School of the Fine Arts.

"Many American universities offer courses in the history and appreciation of art, some also in archaeology, while a considerable number have established professional courses in the single subject of architecture. On the other hand, admirable schools exist for the teaching of both graphic and plastic art in all their phases, but such schools almost entirely lack university affiliations. In no case has an American institution of higher learning yet established a comprehensive recognition of the arts. Such recognition is now proposed for the University of Pennsylvania in the foregoing plan for a School of the Fine Arts."

Housing and Community Planning.

Published in connection with the Committee on Community Planning of the American Institute of Architects.

JOHN IRWIN BRIGHT, *Associate Editor.*

Housing in France.

George Benoit Levy is in earnest about the housing question. Every word of his pamphlet, "Extreme Urgence," proves his passionate conviction that France is in need of more and better houses. When he gives an illustrated lecture he throws four pictures on the scene. The first represents a mother suckling her child. What is more sacred than a mother? The second shows mothers and babies living in healthy surroundings. The third reveals an unfortunate woman in a slum. The door is open. It is open on the revolution! And, lastly, the revolution itself. These women thronging the street demand their rights!

Having obtained the attention of his audience by this introduction, and it is fair to assume that he has done so, he presents a powerful argument against the further enlargement of our old cities and pleads for new garden cities. But to do this he sees clearly that our system of land taxation will have to be revised. So long as land speculation runs riot there can be no progress in housing. Land must be purchased by the municipality and speculative increments must be taxed out of existence. When he discusses the building of the home he is not so much at his ease but this should not be held against him for as he himself says, he is but a "modest propagandist and not an architect or engineer, or even a city planner." Mr. Levy's method of attack is most entertaining and helpful and it would be well if, in this country, there were more people of his enthusiastic courage.

Accompanying Mr. Levy's pamphlet are the following propositions presented to the French parliament by the Association of Garden Cities of France:

I. Whereas, it is absolutely impossible to build cheaply on high priced land,

And, whereas, owners of land owe its increase in value only to the enterprise of the community and as a consequence their community has the right to control the value of land to which it has contributed to increase the price,

And, whereas, numerous speculators during the war have bought in the neighborhood of large cities, over a large area, all available land in order to create a scarcity, and that they have by this act realized profits comparable to war profits of industry,

And, whereas, in the United States, during the war, government housing officials had the power to fix a just price for land needed for garden villages,

And, whereas, in Great Britain the officials of the Ministry of Health has this same power and the minister himself can condemn in fourteen days all the ground necessary for building houses,

Therefore, it hopes that a law may be passed fixing the price of land at the money value of at least the pre-war period, taking account of the actual increase in value derived from improvements placed by the owners after this time, or at least give to the Minister of Health the same powers possessed in this matter by the Minister of Health in Great Britain.

II. Whereas, one of the causes of the housing crisis comes from the excessive congestion of our cities,

And, whereas, instead of wishing to enlarge our cities, there is good reason on the contrary to wish for their limitation in size,

And, whereas, the experience of England in building cities *de novo* with the limitation of building areas and the cost of land and the reservation of open spaces, has furnished conclusive results,

Therefore, it hopes that a law may be passed facilitating a grouping of industries to construct either in open country or in the vicinity of large cities, new cities on cheap land, well situated as to rail and water transportation, each of them surrounded by a protective and productive belt of agricultural land.

Housing in New York.

The Labor Party of New York has expressed itself on the housing shortage in terms easily understandable. It states:

1. The shortage is not new.
2. The reason for the shortage is that profit for investment is smaller for wage earner's homes than for other things.
3. The profit motive is therefore insufficient.
4. Although profiteering may be checked to a certain degree, housing must be regarded as a public utility in which public needs, health and happiness precede any other consideration.
5. Before the war unskilled laborers were chiefly housed in obsolete or made-over dwellings. This group, under a system where profits are taken before a living wage is paid, do not receive a wage sufficient to pay the rent of a decent house.
6. For the skilled worker, pre-war housing was on a speculative basis. Its construction was flimsy and entailed a large maintenance charge.
7. The remedy is to create self-contained garden cities, organized for modern industry, of a size sufficient to afford a full measure of social life, surrounded by a belt of protective and productive rural land, where the land values are conserved for the community and where the dwellers are protected against the devastating effects of land speculation.
8. A system of non-profit transportation to garden suburbs.

To accomplish this program, it proposes:

1. A state housing board which will
   - *a.* Administer state credit rights.
   - *b.* Control priority rights.
   - *c.* Facilitate the organization of non-profit companies for the construction of houses and the manufacture of building materials.
   - *d.* Educate public opinion.

2. Local housing boards in all cities of over 10.000 which will—
   a. Administer credit granted by the state.
   b. Facilitate the organization of local non-profit corporations for construction and the manufacture of building materials.
   c. Act as sources of information on housing questions.

3. A constitutional amendment to permit the extension of state credit without regard to debt limit.

4. An enabling act to permit state or cities to buy land and produce building materials.

5. Cities to take by eminent domain, suburban land and plan it. There must be no increment in land values accruing to the private individual.

Housing boards to give preference in granting contracts to non-profit corporations of practical workers.

Space will not permit of even a hasty analysis of this program. It may not be out of place, however, to point out that much of it is a simple statement of self-evident truths and must sooner or later be answered. The remedies proposed depend to some extent upon cooperative manufacturing, an effort demanding a technique at present undeveloped. That in itself, however, is not an objection sufficiently grave to bar discussion of the merits of the case.

Carlyle and the Housing Problem

(*Correspondence in the Manchester Guardian*)

SIR: Circumstances having made me take a special interest in the writings of Carlyle, I have often been asked during the last few years, what, thinking as he did, of Germany, Parliamentary democracy, hero-worship, *laisser-faire*, and such high matters, he would have said and done had he been alive today. The matter is one of deep and, in a sense, tragic interest. I have views thereon of a very clear and emphatic nature, but I will not venture to inflict them on your readers. Believing, however, that it is generally more profitable to *re*print the words of a man of genius than to print the utterances of more commonplace persons, I hope you will allow me to quote the following passages dealing with two social questions which are of unexampled importance at the present time. The first concerns housing:

> London bricks are reduced to dry clay again in the course of sixty years, or sooner. *Bricks*, burn them rightly, build them faithfully, with mortar faithfully tempered, they will stand, I believe, barring earthquakes and cannon, for 6,000 years if you like! Etruscan pottery (*baked clay*, but rightly baked) is some 3,000 years of age, and still fresh as an infant. Nothing I know of is more lasting than a well-made brick; we have them here (in Cheyne-row), at the head of this garden (wall once of a manor Park), which are in their third or fourth century (Henry Eighth's time, I was told), and still perfect in every particular. Truly the state of London houses and London housebuilding at this time (1867), who shall express how detestable it is, how frightful! . . . Not a built house, but a congeries of plastered bandboxes; shambling askew in all corners or joints of it; creaking, quaking under every step; filling you with disgust and despair! . . . . England needs to be *rebuilt* once every seventy years. Build it once *rightly*, the expense will be, say 50 per cent. more, but it will stand till the Day of Judgment. Every seventy years we shall save the expense of building all England over again . . . Here the money-saving would . . . pay your National Debt for you; bridge the ocean for you; wipe away your smoky nuisances, your muddy ditto, your miscellaneous ditto, and make the face of England clean again; and all this I reckon as mere zero in comparison with the accompanying improvement to your poor souls—now dead in trespass and sins, drowned in beer-butts, wine-butts, in gluttonies, slaveries, quackeries, but recalled *then* to blessed life again, and the sight of Heaven and Earth, instead of Payday and Meux and Co's Entire.

The passage is from "Shooting Niagara: and After?" that tremendous essay of Carlyle's declining years on the strength of which the generality (partly because the wish was father to the thought, partly because of differences as to *method*, and partly because of the looseness of even the subtlest terminology then extant) have called him a reactionary. One who was perhaps the acutest of his interpreters, and who was also a brother of one of his most intimate friends, has said of him, with what seems to the present writer greater accuracy, that he was "more radical than the Radicals."—Yours faithfully,—

TEUFELSDROCKH

Building a New City

On April 30 for the first time railway tickets were issued for the journey from King's Cross to Welwyn Garden City. These were for the private party going out to view the high grasslands and undulating cornfields, with their fine old trees, where, within a year, 500 houses are to be built, and where within from five to seven years it is hoped to complete most of the building of factories, public buildings, and homes for a population of from 40,000 to 50,000 people.

It is to be a self-centered city of the size of Gloucester or Cheltenham, and while at first many of the residents will no doubt go into London, twenty miles away, to work it is estimated that when the scheme is complete not more than 1 per cent of the residents will be at work in London. Welwyn is not to be a dormitory Suburb of London, but as Sir Theodore Chambers, the Chairman of Directors, said to-day, "it is to be a chunk of London" bodily removed and set down in the middle of an agricultural belt where there will be small holdings and orchards and market gardens to supply the needs of the residents.

There will nowhere be more than ten houses to the acre in the town area, each with its own bit of garden and each backed by open land, which will be available for those who wish to cultivate more than the allotted garden. The larger houses will have wider grounds, and on the whole locality, including the agricultural belt, the number of houses will not average more than three or four to the acre.

There is no more delightful country north of London than this four square miles secured from the Hatfield and Panshanger estates of Lord Salisbury and Lord Desbrough, and the aim of the city-builders is to preserve intact as much as possible of the natural beauty. The flat land immediately beside the new railway station, where the Great Northern Company has acquired 66 acres for sidings, intending to make an important junction, is to be covered with factory buildings, and electric power is to be on within six months. Another wide space of flat ground is intended for the centre of the town.

Walking along miles of country road edged with undergrowth and bluebell glades, or across meadows golden and white with cowslips, daisies and dandelions, or through Sherrard's Park, the beautiful plantation whose slender

larches and silver birches are not to be disturbed by the builders, it is difficult to realise how close is this stretch of land to great railway systems and main roads. But the facilities for rail and motor transport are among the chief considerations that have made the promoters of this garden city select the spot for an experiment which should help to revolutionize conditions in congested towns—*Special Correspondence in the Manchester Guardian.*

Architecture at the Royal Academy

Architects may be considered as leaning in the direction either of tradition or of eclecticism, and, subject to the views of the Hanging Committee, which may tend to eliminate work of a certain character, we expect to see an indication of the general trend in the year's exhibition at the Academy. This year it would be impossible to pronounce a very definite opinion on the point from the work in the Architectural Room, but on the other hand it is pleasing to be able to note the general high level of the work shown. Eccentricity, undue formalism, and dogmatic traditionalism are alike at a discount, and the work shown is highly creditable to English architects. It is perhaps a disappointment to see few evidences of the large schemes which we hear are projected, but this is natural enough when we consider the great difficulties caused by the high rate of cost prevailing and the prevalent unrest. Both these causes have created uncertainty which has led to the abandonment, modification or postponement of big schemes, and it is natural under the circumstances that we should see few traces of them on the walls of the Academy.

Sir Edwin Lutyen's Jaipur Column at Delhi (No. 1,185) is an exquisite piece of scholarly design, in which an eastern touch is given by the treatment of the surmounting feature without the introduction of any distinctly alien note in the general classic design. With the Cenotaph in Whitehall this will rank as among the most successful and imaginative of the architect's designs. The modified design for the Quadrant, the work of Sir Aston Webb, Sir Reginald Blomfield, and Mr. Ernest Newton, is shown both in a detail drawing and in a model. (Nos. 1,164 and 1,237). This is a pleasing piece of English Renaissance design which, while giving the shopkeepers of Regent Street the greater window space desired, still carried out the main lines of Norman Shaw's fine design. In No. 1,189 Messrs. Mewes and Davis have made a design for the Antwerp branch of the London County and Westminster Bank which, for scholarly refinement and exquisite finish, may be regarded as the best work of the year. Admirable also is Mr. Curtis Green's design for the proposed reconstruction of 258-260, Piccadilly, shown in a beautiful water-colour drawing (No. 1,281). In its cleanness and vigour this might well be one of the smaller Italian palaces, and it is pleasing to think that Mr. Green has found clients who will let him carry out a street building on adequate masonry supports. Among more ambitious schemes is one for a Hebrew University at Jerusalem by Professor Geddes and F. C. Mears (Nos. 1,173 and 1,174), which takes the form of a picturesque group of domed structures spread over an uneven site and treated in a Byzantine manner. Mr. Robert Atkinson is represented by a clever design for the hall of a theatre at Brighton, a clever essay in Pompeian decoration, and a theatre and winter garden at Liverpool (Nos. 1,147 and 1,179). Domestic architecture is chiefly represented by a fine series of clever water-colour views of Mr. Ernest Newton's work, a delightful group of houses at Temple Shaw by Mr. Briant Poulter (No. 1,218), the central group of the Whiteley village by the President and Mr. Maurice Webb and by the work of other well-known architects.

Among the work of architects known in Manchester and the North may be mentioned a War Memorial for Sedbergh School by Mr. Hubert Worthington (No. 1,265); the main entrance of the Premier Works by Mr. Joseph Sunlight, a refined piece of classic design (No. 1,150) the New Chemical Laboratories for Liverpool University by Messrs. Briggs and Thorneley, forming a well-balanced Georgian composition (No. 1,158) and the same architect's design for municipal buildings at Stepney; and Mr. Charlton Bradshaw's Public Park for the Corporation of Liverpool (No. 1,212). We have not space to mention more of the excellent work, but must content ourselves with the general opinion that those who visit the Architectural Room will feel that English architecture is well represented and is earning a title to a better place than that of "the Cinderella of the Arts."—*Manchester Guardian.*

News Notes

Mr. Bernard Shaw attended "Ye Merry Meetynge" of the British Antique Dealers, recently, and in proposing the toast to their Association he said that "A large part of his own life had been passed in the dark period known as the 19th century. The darkness of the darkest ages of which history gave us any record was not so dark as the 19th century in many respects. Those who had had to do with furniture in that century would understand him.

"The whole tradition of beautiful and venerable household effects was preserved through the darkness of the 19th century by the antique dealers. The objection might be raised that they had merely been taking some of the most beautiful articles of domestic use out of the hands of the poor and passing them into the hands of the rich, and people might have a suspicion that that process involved taking them from the deserving poor and giving them to the undeserving rich.

"They could dismiss from their minds any anxiety on that point In certain phases of civilization, if one wanted to have things preserved, it was necessary to take them out of the hands of the people who were too poor to keep them and too ignorant to understand them and transfer them into the hands of people who had the means of taking care of them.

"That transfer was the work of the antique dealer. The association, no doubt, like himself, looking forward to a time, when distinctions of rich and poor would vanish, and practically the poorest people in this country would be able to command the most beautiful things that the past or the present could give them."

The Secretary's annual report to the Illinois Chapter records a year of activities. Their extent is amazing and yet at the same time quite indicative of the ramifications of architectural interest. The Legislative Committee, for example not only deals with

recommendations increasing the height of Standard Mill Buildings from 90 to 100 feet; with the question of permitting Class 1 buildings to be built with a total floor area of 12,000 feet, given proper precautions,—but also has no hesitation in considering the case of locking devices for elevator doors, renewal cards used in the Department of Education, glass panels in stair doors, and the grading and sizing of timber.

The Municipal Art and Town Planning Committee seems to have had a more alluring experience. It set itself to work on the question of the improvement of the river bridges in Chicago, the proposed lake front improvement as well as that for North Michigan Avenue, and took up the Comprehensive Zoning Law, not to mention the restoration of the Field Museum at Jackson Park, with its possible use as an exhibition for architectural and sculptural models.

Then there are also recorded the work of the Exhibition and Art Extension Committee, the Historical Educational Committee, the Program Committee, and a special committee to study the question of the relations between employer and employee. Altogether, the members of the Illinois Chapter ought to be a little proud of the work of their officers and committees. There are too few histories of this kind within the Institute.

ACCORDING to L'Architecture, the plan for the reconstruction of Rheims, of which an account appears in this issue, is now being studied by a committee created by the municipality, composed of Messieurs Louis Sue representing the "Cooperative de Reconstruction de Reims, Portevin, president of the Marne Society of Architects; Abelle, of the "Renaissance des Cites;" and Redont, landscape architect, representing the Ministry of Public Instruction and Beaux-Arts.

BUILDERS have been provided with a new publication. The Builder's Journal made its appearance in May, and is under the Forum management. It seeks to stimulate better design and better building, two laudable purposes, and in this effort it will surely enjoy the good wishes of those who realize the formidable task now awaiting the building industry in the United States.

FEDERATION of the Engineering and Allied Technical Societies was the object of a meeting held in Washington on June 3–4 last, attended by 140 delegates representing 70 organizations. As its Preamble, the Conference adopted the following: "Engineering is the art of organizing and directing men and controlling the forces and materials of nature for the benefit of the human race. Since service to others is the expression of the highest motive to which men can respond, and duty to contribute to the public welfare demands the best efforts men can put forth, therefore, by united action the engineering and allied technical societies of America realize the long cherished ideal—a comprehensive organization dedicated to the service of the city, state and Nation." Subject to ratification by the constituent bodies, a Constitution and By-Laws were adopted.

Mr. Richard L. Humphrey outlined the history of the movement in his address as chairman of the Joint Conference Committee which organized the conference. He pointed out that "the primary purpose of the United Engineering and Allied Technical Professions" is to deal with public affairs of the city, state and nation, where engineering experience and technical knowledge are involved, and to consider and to take action on other matters of non-technical character which are of common concern."

ADOPTING the new schedule of charges, the Federation of French Architectural Societies appears to be the first organized body definitely to agree upon a general advance in fees. The new schedule provides for the following payments:

For the first 50,000 francs, 7%.
For the second 50,000 francs, 6%.
For the following 400,000 francs, 5.5%.
In excess of 500,000 francs, 5%.

For work less than 1,000 francs, special charges are arranged. Consultations of less than one hour are 15 francs, if at the architect's office; if elsewhere, 25 francs. By special agreements with the client the fee may be increased, in whole or in part, and other special fees may be charged for work varying from the ordinary. In January the Council of the Federation adopted a schedule based upon 8% for the first 10,000 francs; 7% for the following 20,000 francs; 6% for the following 70,000 francs; 5.5% for the following 400,000 francs, and 5% for the excess of 500,000 francs. But this schedule was modified in conference, and approved as above.

In respect to the establishment of a schedule of charges for reconstruction work in the liberated regions, the French architects still find themselves resolutely opposed to the schedule promulgated by the Government. The Federation is actively pursuing the difficult task of reaching an agreement.

ANNOUNCEMENT is made by the Bureau of Insular Affairs, War Department, Washington, D. C., of its needs for two architectural designers at a salary of 2,500 dollars; one designer at 3,000 dollars, and two estimators and specification writers at 2,250. Appointees will be furnished transportation from their place of residence to the Philippine Islands, the cost being deducted from their salaries in ten monthly instalments and refunded to them after the contract period of two years. Inquiry should be made as above.

THE architects of the Tri-Cities of Rock Island, Moline, and Davenport, announce the successful conclusion of their third exhibition, in which attention was given to the subject of small house planning. The exhibition developed wide interest and has been of great value in arousing enthusiasm, stimulating co-operation, and of fixing a higher standard for architecture.

Obituary

Jean Louis Pascal

Elected to Honorary Corresponding Membership in 1900
Received the Gold Medal of the Institute in 1913

(Further notice later)

Institute Business

New Members Elected

Name	*Chapter*
WALTER M. GIESKE	Baltimore
WILLIAM GRAVES PERRY	Boston
EDWARD H. PRICHARD	Boston
JOHN W. BOYLSTON	Brooklyn
CHARLES MORRIS	Cleveland
SAMUEL PRESCOTT HALL	Columbus
RALPH E. SAWYER	Iowa
ROBERT FINKELHOR	Minnesota
WALTER VAN CLEVE MARSHALL	Minnesota
FREDERICK AUGUSTUS GODLEY	New York
ALFRED LAWRENCE KOCHER	So. Pennsylvania
ISAIAH M. MYERS	So. Pennsylvania
CHARLES I. BARBER	Tennessee
RICHARD ROBB CLARK	Tennessee
BENJAMIN F. MCMURRY	Tennessee
GEORGE D. NEVINS	Tennessee
GEORGE C. NORTON	Tennessee
DONALD W. SOUTHGATE	Tennessee
LOUIS SVARZ	Washington State
ROGER C. KIRCHHOFF	Wisconsin
CHARLES W. VALENTINE	Wisconsin

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:
BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

Important Notice—Jurisdictional Awards

The following decisions, are identical in substance with the official document of the Board of Jurisdictional Awards. The Fifty-second Annual Convention, held in Nashville, April 30th, May 1st and 2nd, 1919, adopted the following resolution:

Resolved: That the American Institute of Architects in convention assembled accepts the report of its Committee on Jurisdictional Disputes and adopts the presented Plan of National Board of Jurisdictional Awards in the Building Industry and instructs its officers to signify its adoption by signing an agreement to that effect, and to support the work financially, as may be found necessary.

Members of the Institute are requested to read the Proceedings pertaining to this subject, pages 72 to 76. Special attention is called to the following paragraphs in the Constitution of the Jurisdictional Board as printed in the Proceedings of the Fifty-second Convention and adopted by that Convention:

Article 9, fourth paragraph: Any architect, engineer or employer represented on this Board through an organization signatory to this agreement shall be suspended from his organization or organizations upon failure to comply with the provisions of this agreement and the awards of this Board.

Article 27. The parties hereto bind themselves individually and severally to abide by the decisions of the Board as herein created.

The decisions of the Board establish the jurisdictions of the several trades but do not require Institute members, in any way, to limit work to union labor. It is, however, of the utmost importance to architects whose work is executed by union labor to bear these decisions in mind in writing their specifications. Apart from the responsibility devolving upon members of the Institute to abide by the decisions of the Board as a result of the action of the Fifty-second Convention, failure to do so would doubtless result in tying up work during course of construction wherever union labor happened to be involved.

Several of these awards, agreements and disputes do not affect the Architect in writing his specifications. The few that do affect him may be easily taken care of, if he will bear in mind that he is merely to specify work under the proper heading; in many offices, this will not involve any change in the manner of specifying the work. There should be no mention of union or non-union labor, and the decisions are automatically inoperative wherever union labor is not involved. Perhaps the best illustration of the Architect's duties is afforded by the award in the case of Bestwall. If this material is used in place of wood sheathing or is used for the finish of a room, and the joints are covered with moulding, the work should be included in the Carpenter's specifications. If it is used in place of plaster and the joints and nail heads puttied, then the work is included in the Plasterer's specifications.

The promulgation of these decisions was authorized by the Institute Board at the May, 1920, meeting, and by the Fifty-third Convention.

WILLIAM STANLEY PARKER,
Secretary, A. I. A.

Previous decisions appeared in the Journal for April, 1920.

Decisions Rendered by the National Board for Jurisdictional Awards in the Building Industry

E. J. RUSSELL, *Chairman*, American Institute of Architects.
R. P. MILLER, Engineering Council.
COL. J. R. WIGGINS, F. J. C. DRESSER } Associated General Contractors of America.
E. M. CRAIG, National Association Building Trades Employers.
WM. DOBSON, WM. L. HUTCHESON, JOHN J. HYNES } Building Trades Department, A. F. of L.
WM. J. SPENCER, *Executive Secretary*, 501 A. F. of L. Building, Washington, D. C.

Asbestos Plaster for Boiler Rooms, Etc.

[Subject of dispute between the Operative Plasterers and Cement Finishers International Association and the International Association of Heat & Frost Insulators & Asbestos Workers.]

DECISION—In the dispute between the Asbestos Workers and Plasterers on the matter of plastering boiler rooms, etc., it is decided that the insulation and finishing coat on ceilings with asbestos and other insulating material, where the ground work has been prepared and installed by the asbestos worker, shall, including the application of insulating material on boilers, tanks, vats, etc., be awarded to the asbestos worker.

Asbestos Shingles, Prepared Paper Roofing, Asphalt Roll Roofing, Shingles and Strip Shingles

[Subject of dispute between the United Brotherhood of Carpenters and Joiners and the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association.]

DECISION—On the question in controversy between the Roofers and Carpenters on the subjects contained in the title, it is decided as follows:

Asbestos Shingles, Prepared Paper Roofing, Asphalt Roll Roofing, awarded to the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association.

Asphalt Shingles, Strip Shingles, awarded to the United Brotherhood of Carpenters and Joiners.

Bestwall, When Applied as a Substitute for Lath and Plaster

[Subject of dispute between the United Brotherhood of Carpenters and Joiners, Operative Plasterers and Cement Finishers' International Association and International Union of Wood, Wire and Metal Lathers.]

DECISION—In the matter of material known as Bestwall, forming a contention between the Carpenters, Plasterers and Lathers, jurisdiction shall rest with the Carpenters where material is panelled or used as sheathing; when cut, fitted and pointed, the Plasterers are recognized to have jurisdiction.

Erection of Scaffolds as Applied to Building Construction

[Subject of dispute between the International Hod Carriers, Building and Common Laborers' Union, United Brotherhood of Carpenters and Joiners, Operative Plasterers and Cement Finishers' International Association and Bricklayers, Masons and Plasterers' International Union.]

DECISION—In the matter of the dispute between the Laborers, Bricklayers, Plasterers and Carpenters over the erection of scaffolds as applied to building construction, it is agreed that the erection and removal of all scaffolds including trestles and horses used primarily by Lathers, Plasterers, Bricklayers and Masons shall be done by the Mechanics and Laborers in these trades as directed by the employer.

Self-supporting scaffolds over fourteen feet in height or any special designed scaffold or those built for special purposes shall be built by the Carpenters.

The making of horses and trestles other than temporary is the work of the Carpenter.

Light Iron Furring, Brackets, Clips, Hangers, Corner Guards, Beads and Metallic Lath

[Subject of dispute between the International Union of Wood, Wire and Metal Lathers and the International Association of Bridge and Structural Iron Workers.]

[Award of the Denver Convention, Building Trades Department, A. F. of L., adopted November, 1908. See printed proceedings, pages 69 to 71, inclusive.]

DECISION—In the matter of dispute between the International Union of Wood, Wire and Metal Lathers and the International Association of Bridge and Structural Iron Workers referred to in the foregoing title the following award is concurred in:

"After going into an extended hearing of the jurisdiction claims of both organizations, your committee recommends that the erection and installation of all light iron work, such as light iron furring, brackets, clips, hangers, steel corner guards or beads,* and metallic lathing of all descriptions, belongs solely to the lather.

"This does not give the right, however, to the lathers to install or erect any other iron work than as herein specified and outlined.

"This decision is based in conformity with the agreement entered into by the national officers of both organizations and endorsed by the Kansas City Convention of Structural Iron Workers and concurred in by the American Federation of Labor."

In supplement of the foregoing decision the Rochester Convention of the Building Trades Department, November 29, 1912, awarded jurisdiction over Hyrib lath to the Wood, Wire and Metal Lathers' International Union.

*Note following decision:

Metallic Corner Beads When Set in Plastic Material

[Subject of dispute between the Operative Plasterers and Cement Finishers' International Association and the Wood, Wire and Metal Lathers' International Union.]

DECISION—In the matter of the controversy between the Plasterers and Lathers on the question of the adherence of corner beads by plastic material, it is the opinion of the Board that deserved consideration was not given the subject when the previous decision was reached. It is, therefore, agreed that the plasterers are awarded jurisdiction over sticking with plastic material metallic corner beads. (See Journal, April, 1920.)

Acetylene and Electric Welding

Subject of dispute between the trades named in the following memorandum.]

DECISION—In the matter of the dispute referred to in the foregoing title, as approved by the Philadelphia Convention of the Building Trades Department, A. F. of L., November, 1914 (see printed proceedings, page 99), the following agreement is concurred in:

"Representatives of the Electrical Workers, Sheet Metal Workers, Iron Workers, Plumbers and Steam Fitters, and Machinists mutually agreed to the following decision:

"Each trade to have jurisdiction over all acetylene and electric welding when such process is used to perform the work of their respective trades."

Bronzing and Painting of Radiators and Pipe Connections

[Subject of dispute between the Brotherhood of Painters, Decorators and Paperhangers and the United Association of Plumbers and Steam Fitters.]

[Award of Rochester Convention, Building Trades Department, A. F. of L., adopted November 29, 1912. See page 141, printed proceedings.]

DECISION—In the matter of the subject referred to in the foregoing title, the following award is concurred in:

Resolved, That the United Association of Plumbers and Steam Fitters be and is instructed to require that its affiliated unions desist from further trespass upon the jurisdiction of the Brotherhood of Painters, Decorators and Paperhangers of America, and when and where necessary to notify their employers that neither journeymen nor helpers will be permitted to do this work.

Cork Tiling, Laying or Setting of

[Subject of dispute between the United Brotherhood of Carpenters and Joiners and the Bricklayers, Masons and Plasterers' International Union.]

DECISION—In the matter of the dispute referred to in the foregoing title, the following agreement is concurred in:

Agreement entered into this 14th day of October, 1913, by and between representatives of the United Brotherhood of Carpenters and Joiners, and representatives of Bricklayers, Masons and Plasterers' International Union.

Jurisdiction is hereby conceded the Bricklayers, Masons and Plasterers' International Union to the laying or setting of all cork tiling when laid or set in any composition of sand and Portland cement.

Jurisdiction is hereby conceded the United Brotherhood of Carpenters and Joiners to the laying or setting of all cork tiling when laid or set in any composition of glue or when nails or brads are used in laying above referred to cork tiling.

Application of Damp-Resisting Preparations and Waterproofing

[Subject of dispute between United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association, and the Brotherhood of Painters, Decorators and Paperhangers.]

DECISION—In the matter of dispute referred to in the foregoing title under the following agreement is concurred in:

Agreement entered into by and between the Brotherhood of Painters, Decorators and Paperhangers of America and the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association.

First. That the painters do not claim the right to apply any of the material claimed by the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association except such material as is applied by a brush that is ordinarily used by the painters in applying the materials covered in their jurisdiction.

Second. That the United Slate, Tile and Composition Roofers, Damp and Waterproof Workers' Association does not claim the right to apply any of the material in dispute except when applied by or with a three-knot, long-handled brush, mop or swab, and spray system employed therein.

Marble and Slate Partitions, Backs and Floor Slabs for Urinal Stalls, Closets and Showers, Setting of

[Subject of dispute between the Bricklayers, Masons and Plasterers' International Union and the United Association of Plumbers and Steam Fitters.]

[Award of Rochester Convention, Building Trades Department, A. F. of L., adopted November 28, 1912. See page 132, printed proceedings. Award of Buffalo Convention, November 9, 1917. See page 92, printed proceedings.]

DECISION—In the matter of the subject referred to in the foregoing title, the following award is concurred in:

Resolved, That the setting of floor slabs, backs, partitions of urinal stalls, closets and shower baths properly belong to the Bricklayers, Masons and Plasterers' International Union.

The foregoing decision does not concede to the Bricklayers the right to install marble work that is connected with the water supply or sewer or watertight work regularly catalogued as plumbing fixtures.

Muslin and Canvas for Decorative Purposes, Tacking of

[Subject of dispute between the Brotherhood of Painters, Decorators and Paperhangers and the I. A. Heat and Frost Insulators and Asbestos Workers.]

[Award of Buffalo Convention, Building Trades Department, A. F. of L., adopted November 10, 1917. See page 108, printed proceedings.]

DECISION—In the matter of the subject referred to in the foregoing title, the following award is concurred in:

Resolved, That this convention notify and instruct the officers of the Asbestos Workers' International Union that the tacking of all muslin and canvas for decorative purposes is the jurisdiction of the Brotherhood of Painters and that they instruct their members to refrain from doing any of this work.

Pile Driving Machinery and Engines, Operation of

Award of Buffalo Convention, Building Trades Department, A. F. of L., adopted November, 1917. See pages 59 and 105, printed proceedings.]

DECISION—In the matter of the subject referred to in the foregoing title the following award is concurred in:

Such workmen as are employed in the operation of engines or machinery in connection with a pile driver come under the jurisdiction of the International Union of Steam Engineers.

Sheet Metal Glazing for Sash, Frames, Doors, Skylights, Etc.

Subject of dispute between the Brotherhood of Painters, Decorators and Paperhangers and Amalgamated Sheet Metal Workers' International Alliance.]

DECISION—In the matter of dispute referred to in the foregoing title the following agreement is concurred in:

Agreement entered into by and between the General Executive Board of the Brotherhood of Painters, Decorators and Paperhangers of America, and the Amalgamated Sheet Metal Workers' International Alliance, shall take effect December 1, 1910, and remain in force until amended, revised or changed, at a meeting between the representatives of both organizations called for this purpose.

Section 1. It is agreed by both parties to this agreement that all glass set in sheet metal sash, frames, doors, or skylights shall be set by members of the Brotherhood of Painters, Decorators and Paperhangers of America, according to their claim of jurisdiction granted by the convention of the Building Trades Department, A. F. of L., at St. Louis, December, 1910; and that all sheet metal work on sheet metal sash, frames, doors or skylights shall be done by the members of the Amalgamated Sheet Metal Workers' International Alliance.

Section 2. In localities where differences now exist or may arise in the future, such differences shall be adjusted by a committee appointed by and representing the district councils or local unions of both organizations in that locality. Should this committee be unable to agree, a representative of the General Executive Board of each organization shall be called in to assist in the adjustment.

Section 3. It is also agreed that the national officers of both organizations where local unions fail to agree shall insist that this agreement be carried out by affiliated unions.

Slate Treads When Set on Iron Stair Case

[Subject of dispute between Bricklayers, Masons and Plasterers' International Union, and the International Association of Bridge and Structural Iron Workers.]

DECISION—In the matter of dispute referred to in the foregoing title the following award is concurred in:

Slate treads on iron stairs having provoked a dispute in jurisdiction between the organizations above named, was submitted to the Executive Council November 29, 1909. The action taken follows:

The Executive Council of the Building Trades Department on being called upon for a decision awarded the work in question (slate treads) to the Bricklayers, Masons and Plasterers' International Union

Report of Inspection of the Lincoln Memorial at Washington

At the request of Mr. Charles Moore, Chairman, the Commission of Fine Arts, and Colonel C. S. Ridley, U. S. Executive Officer, three members of the Bureau of Standards staff, assisted by Mr. Gillen, Superintendent of Works, made an inspection of the Lincoln Memorial Monument on April 20, 1920. The purpose of the inspection was to determine if there was an undue amount of cracking in the marble superstructure and the conditions which caused this cracking to take place. Cracks were noted in various parts of the structure which may be classified as follows:

(*a*) Spalling of the sharp corners of the stylo-blocks at the joints, indicating excessive pressure at these points, and probably due to thermal expansion of the stone.

(*b*) Tensile cracks in the coping course above the colonnade due to anchoring of blocks to each other with metal dowels.

(*c*) Original strain lines in the marble caused by pressure in the material before removal from the quarry.

The spalling of the sharp corners of the stylo-blocks occurs frequently in the foundation courses on all sides of the structure. These spalls in a number of cases extend over the entire height or width of the block, from one half to one inch way from joint, and about one eighth of an inch in depth. These are made more noticeable by dirt and dust which collects in the rough cavities.

The coping course directly above the colonnade is made up of blocks anchored together by metal dowels. Alternate expansion and contraction in this course are accompanied by corresponding compressive and tensile stresses, the latter being transmitted through the dowels. The resistance of the marble to tensile stress is low, and there results frequent cracking at points where the dowels are embedded. These fractures usually loosen on the upper corner of the block a triangular piece measuring about five of six inches back from the joint, and the same distance down from the top.

Original strain lines were observed in a few of the pieces. The most prominent of these was found in the frieze on the west side near the south end, and is shown in photograph IV. These lines are not prominent enough at present to be very noticeable, but may possibly develop to some extent in the future.

In conclusion it may be noted that a number of broad streaks of dirt are conspicuous on the frieze. These occur directly beneath joints in the cornice where the pointing does not completely close the joints, and where rain water trickles down over the frieze, carrying with it accumulated dust and dirt from above. The carving tends to confine this wash in definite channels, and consequently the streaks have the appearance of cracks when viewed from the ground.

The actual amount of deterioration observed in this inspection is not considered excessive, and the fractures and spalls described are all of relatively small extent. Very few of the cracks could be detected by the unaided eye at a distance of one hundred feet from the monument.

Mr. George P. Merrill, Head Curator of Geology, Smithsonian Institute, also made an inspection of the stone work, and states in a report to the Lincoln Memorial Commission, the following:

"I found in several instances minute flaws which had developed on exposure to the weather from weaknesses which were quite inconspicuous in the freshly quarried material. None of these are sufficiently serious to be considered as of structural weakness and will be wholly overlooked as the building tones down and is considered in its entirety. Such defects are to be found in any, and indeed, every stone building and their complete avoidance is a practical impossibility, though I confess there are one or two instances in which had I known five years ago how the the stone would conduct itself, I should have advised the rejection of the material. Had the architect selected granite or been content with blocks of smaller dimensions, even these defects might possibly have been avoided. Taken in its entirety, the building I believe to be a master-piece of construction and as free from material defects as can be asked with any degree of reason."

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Shadows and Straws

ANOTHER has written an appreciation of the etchings of Troy Kinney which are published in this issue. I have not yet read what he has to say, but I have no doubt that it will be well said and well worth the saying. Of what I have to say, I have not the same confidence. I think of dancing as the handmaiden of architecture, not because of the direct connection of line and form, which is the essence of design, but because I feel that people who know how to dance beautifully will know how to build likewise. For dancing is the universal sense of rhythm, out of which architecture was born.

I remember well when in London some years ago, an English architect said to me at luncheon, "Of course you are going with me to the Russian ballet tonight. It is the only thing to do. I spend every hour I can in worshiping these incomparable creations. They are the richest source of all my inspiration in design. Nothing approaches them in sheer beauty." To all of which I agreed, even though I do not design in the manner of an architect.

From the particular etching called "Swallows," of which I have the good fortune to possess a proof, it seems to me one might construct a thesis on the source of all Greek art. The academicians will not have it so, I know, but they really do not matter. The geometricians will think to prove otherwise by their charts and diagrams, but what of that? Who can prove anything, after all, in these matters? I prefer to evoke the image of that day without disturbing the patina—without lifting the delicate and exquisite veil through which are visible the immortal shapes of gods and goddesses,

"In what ethereal dances,
By what ethereal streams."

And in this etching I am quite content mentally to make a picture—I confess it is my own—of the morn when Boreas found Oreithyia dancing beside the river Ilyssus and carried her away to Mount Haemas. Pausanias describes the event as he saw it carved on the memorial chest of Cypselas, wondrously fashioned of cedarwood, of ivory, and of gold, whereon the legs of Boreas bore the likeness of serpents, and Oreithyia was unwilling. But the ancient historians who wrote their tales in bronze and marble seem always to have been curiously unkind to Boreas, for he came of an eminently respectable family, at the head of which was Erectheus of templed fame, and so I prefer to think of him as I seem to see him in the "Swallows." Surely if there is one thing that one ought to be allowed to arrange to suit, it is a mythology!

Again, in the bronze bas-relief in the British Museum, found, I believe, on the island of Calymna, and which I have not seen these many years, I do not remember that Boreas had other than the shape of a god,—perhaps a little boisterous in keeping with the North Wind,—or that Oreithyia was less unwilling. But I prefer to believe that Kinney has unwittingly given a truer account of the episode than either of those long vainshed historians. The unwillingness in these cases always seemed to me to be more ladylike than genuine, and are we ever sure which one was carried off?

'Tis sadly true that the day of Grecian maidens dancing on the flower-strewn banks of rivers has long since passed, yet I have an idea that we are not like to get very much that is real or important in the field of art until the custom is resumed. A dull and stupid world has banished the dance, except in occasional exquisite remnants and reminders, such as may be seen for money in a theater, or the incongruous pursuit of rhythm to the tune of jazz, by which a great multitude seek food for the starving selves, of whose very possession they are so pathetically unconscious. The river banks that I have lately seen were dotted with the figures of men, sitting in melancholy ecstacy, and fixedly observing a motionless line. The humor of the situation seemed to lie in the probability that the fish were probably still dancing.

But if I wished—and I do—for a world made beautiful wherever it was touched by the hand of

man, I would begin by making the dance the first creative outlet of life. For rhythm is the only key after all. None other will unlock those long-closed moss-grown portals, whose very presence is never felt, as the restless stream of humans hurries by on its foolish, fevered, and forever unsatisfied quest.

'Twas Angus Og and the Thin Woman of Inis Magrath who spoke the truth about these things, as you will remember if you have read "The Crock of Gold." Also let us be very happy that Troy Kinney tells us the truth in the god-like etchings that he makes for us.

THE CONGRESS of the Building Industry to be held in Chicago in September, an account of the calling of which appears elsewhere in these pages, has a striking significance to the architectural profession. It will be an opportunity for architects to fulfill their role broadly in the interest of the industry, as they fulfill the same role more narrowly in the professional service of a client. Bored and disillusioned as we may be with the endless conferences and congresses, the eternal talk of small minds, the perpetual effort on the part of selfish interests to seize upon every organized activity as a tool for their particular advancement, the brutal fact stares us in the face that only by a common impulse to know the truth can the building industry ever be rescued from the impossible situation in which it now finds itself.

Therefore it is hopeful that the call for the Congress announces the purpose to be the finding out of the truth about the building industry. It will be no easy task, because most people do not wish to know the truth. Also, there will no doubt be others in the industry who will not like the truth to be known. Yet it will be the height of folly to suppose that the different vocations in the building industry can be brought into any harmonious relation until they know the truth about the industry they serve. And first of all, they will have to discover what so many fail to realize at present, that the building industry is in no way controlled by those who serve in it as workers and technicians. There are struggles for control, it is true, on the part of many, but the forces which they fail to take into account are too strong to be dominated by any one interest. In the last analysis the building industry is at present a chaotic scramble—a ship that has passed almost entirely out of the command of its officers and crew, and which has been left floating aimlessly before the winds of chance.

It is the architect's opportunity, throughout the United States, to use his professional knowledge and skill in bringing to light the whole truth about the building industry, the methods and practices by which it strives to function and the external forces which continually prevent it from becoming an effective instrument for the common good. —C.H.W.

The Crisis in Architecture

By ARTHUR J. PENTY

V. A THEORY OF THE PICTURESQUE—continued

IN THE OLD English villages the typical detached cottage is long and narrow, one room thick, by which I mean that the principal rooms go from back to front and are generally lit from both sides. Though the plans of these cottages vary, Fig. 8 would be typical of many of the simpler ones.

Houses of this kind would be roofed by a single pitched roof which might be anything from 14 ft. to 20 ft. span. They are rarely less or more than these lengths. Such simple roofs may terminate in different ways: with a gable at either end, as in Fig. 9; with a hip at either end, as in Fig. 10; or with a gable at one end and a hip at the other, as in Fig. 11. The first of these is most general. The second and third are unsuitable for building with stone slab roofs because of the difficulty of treating the hip satisfactorily. The third is, I believe, peculiar to the south-east of England, and is the most beautiful arrangement of all. This type is the unit from which the picturesque roofs in these villages are built. The alternating gable and hip is the secret of their charm. Another peculiarity of these roofs, which gives them such character, is the custom of making their hipped ends 10 degrees steeper than the main pitch of the roof proper. Thus the pitch of the latter may be anything from 50 to 55 degrees, while the pitch of the hipped ends would be from 60 to 65 degrees as the case might be. I might add that special hip tiles are unnecessary in such a case, for the conical or granny-bonnet hip tiles, as in Fig. 12, will cover a 10 degree variation of pitch, and the adjustment will be unnoticeable. In cases where pantiles are used, the hip is made with a ridge tile, and the roof must be very

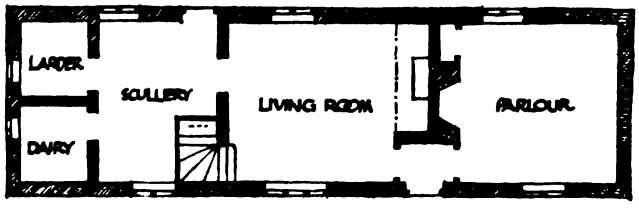
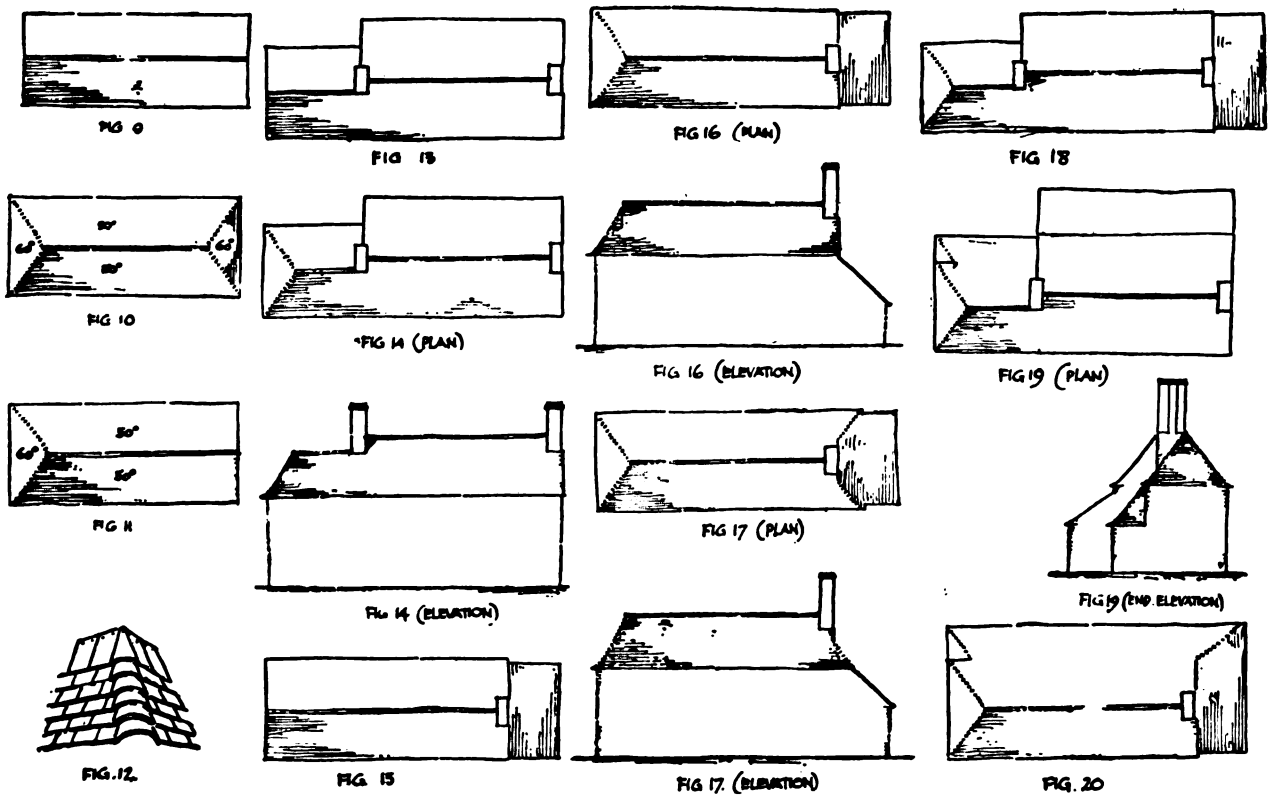


FIG 8



simple in design. Pantiles make a very beautiful roof, but those on the market today are too big and destroy the scale of small buildings. If made smaller, they could be more widely used.

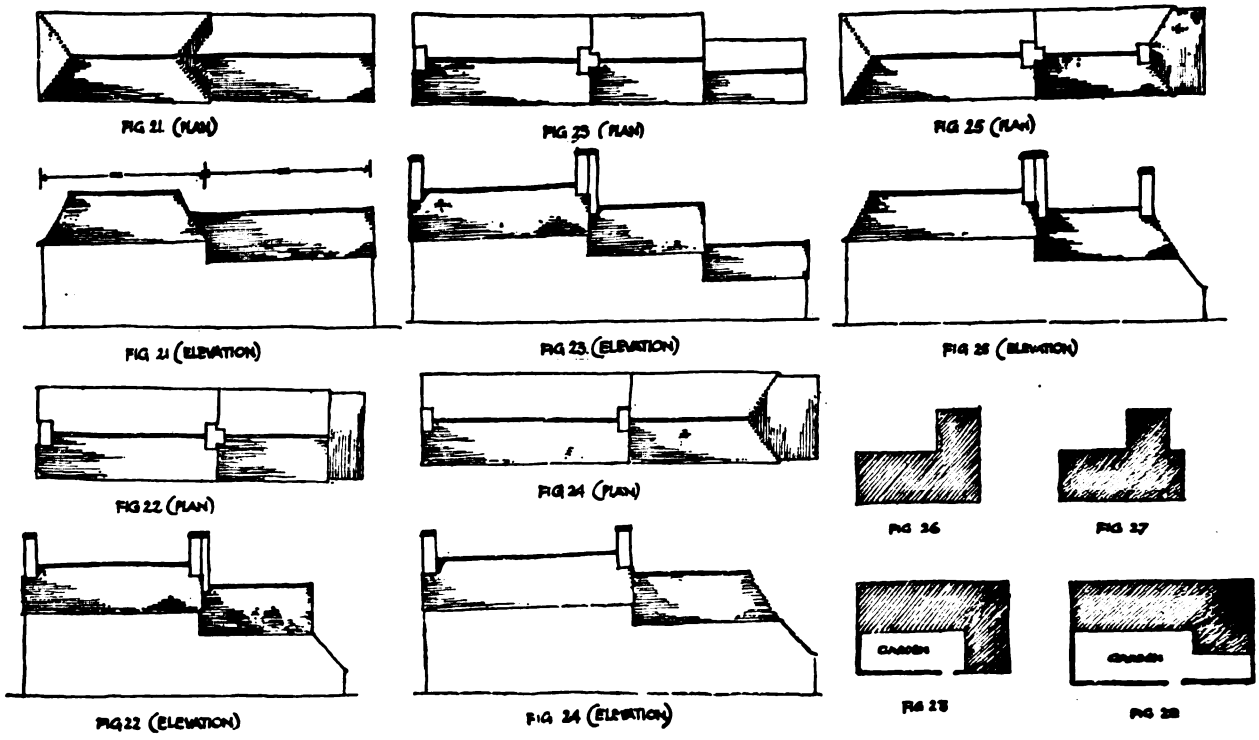
The old roofs were invariably long and narrow. The old builders rarely thought it necessary to introduce any variation from a perfectly plain roof, to break it up in any way until a building had attained to certain dimensions, for they knew the value of a long unbroken roof line. Roofs of smaller dimensions, which most old ones were, came thus on plan to be simple parallelograms with one single ridge, like Figs. 9, 10 and 11. It was because the old builders refused to break the roofs for small buildings that their designs were invariably good in "scale." Lack of "scale" is a great defect of modern work. Most architects crowd their designs with too many features. The old builders knew better. They always aimed at breadth of treatment. In the case of small houses, they sought wherever possible to build in groups in order to get broad simple effects. Modern houses in the suburbs are more and more being built separately, in order, it seems, to get as many features as possible. But it is a mistake.

When such houses or group of houses exceeded a certain length, they were in certain positions varied, as shown by Figs. 13 and 14. Also the old builders were very fond of combining the long narrow roof with a gable at both ends, or a gable at one end and a hipped end at the other, with a lean-to at the gable end, as in Figs. 15 and 16; or they carried the lean-to higher, making it intersect the lower part of the gable, as in Fig. 17; or again they used some combination of these, as in Fig. 18.

Generally speaking the old builders avoided breaks in the wall line. Where they made such breaks, it appears to have been for roof effects, as is evidenced by the fact that in such cases as are illustrated in Figs. 13, 14, and 18, the break occurs on the back elevation. If they required more accommodation on the ground floor (for strange to say they were satisfied with very little bedroom accommodation) they added a lean-to at the back of the house or carried the roof down, making a "cat slide," as in Figs. 19 and 20.

Then they were very fond of making one part of a roof higher than the other, either by putting some of the bedrooms partly in the roof, or by taking advantage of a rise in the ground, as in Figs. 21, 22, 23, 24, and 25, or by any combination of these ideas that might suggest itself. In such circumstances care was always taken that the ridges should be of unequal length.

So far I have dealt with the types of roofs suitable for houses that were long and narrow. By combining these in different ways and varying the proportions between the different parts, they could be multiplied almost indefinitely. The custom in the



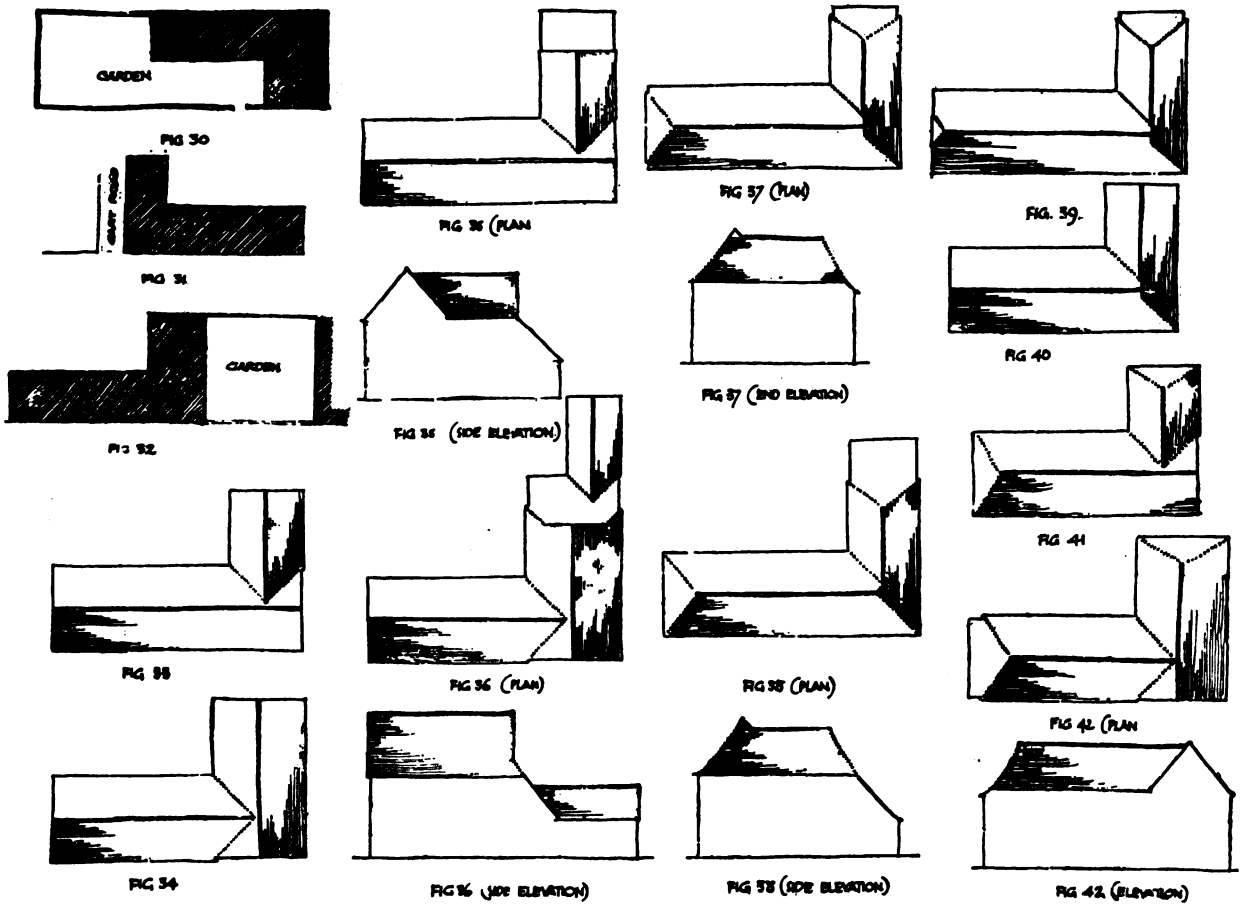
past was to adopt the long narrow type of plan wherever possible and to depart from such a plan only after a building had attained to certain dimensions and where special circumstances of site suggested some other arrangement. Nine out of ten of the picturesque old houses are nothing more than parallelograms on plan.

The first departure from the long parallelogram type of plan was the L shaped one, which, next to the long narrow plan, was the most popular. When the L shaped plan is used, one arm of the L is invariably much longer than the other, and generally wider, in order that one arm may be subordinated to the other. Furthermore, the old builders did not make a break in the line of the wall at the junction of the arm. Fig. 26 shows the L plan as used by the old builders; Fig. 27, that generally used by modern architects. This variation by architects of today is due to the fact that their minds are occupied more with the secondary details than with the big fundamental ideas. If you ask most architects why they make such breaks, they will say that they want something against which to stop the eaves. Such considerations did not affect the old builders who realized that every such break, by dividing up the wall space, tends to destroy breadth in design; and so they sacrificed secondary considerations to primary ones. When we get the same grip of fundamentals, we shall do the same.

The next point to observe is that the old builders did not use the L shaped plan in the fanciful way which obtains today. They never departed from the simple parallelogram except for some difinite reason. Perhaps it was a corner site that suggested such an arrangement; or the site was restricted and it was impossible to secure the necessary accommodation in any other way. When the L shaped plan was used for detached farm houses where no such considerations could be urged, the old builders invariably sought to complete the parallelogram by means of a garden enclosed by walls, as shown in Figs. 28, 29, and 30. In the case of an L shaped house or group of houses appearing in a village street, it might be that a cart road at the side gave some justification, as in Fig. 31; or perhaps the aim was to secure a garden at one end, as shown in Fig. 32. It is true that in every case the departure from the simple parallelogram was justifiable, and was not simply a matter of whim or fancy.

We may now pass on to consider the various ways of roofing L shaped buildings. Of these the simplest are those which use gables only. Figs. 33 and 34 represent the alternatives. Variations of this arrangement can be made by adding a lean-to to one of the wings, as in Fig. 35, or by adding a smaller roof at a lower level, as in Fig. 36. Variants of this arrangement can be multiplied. The point to remember is to make one roof dominate.

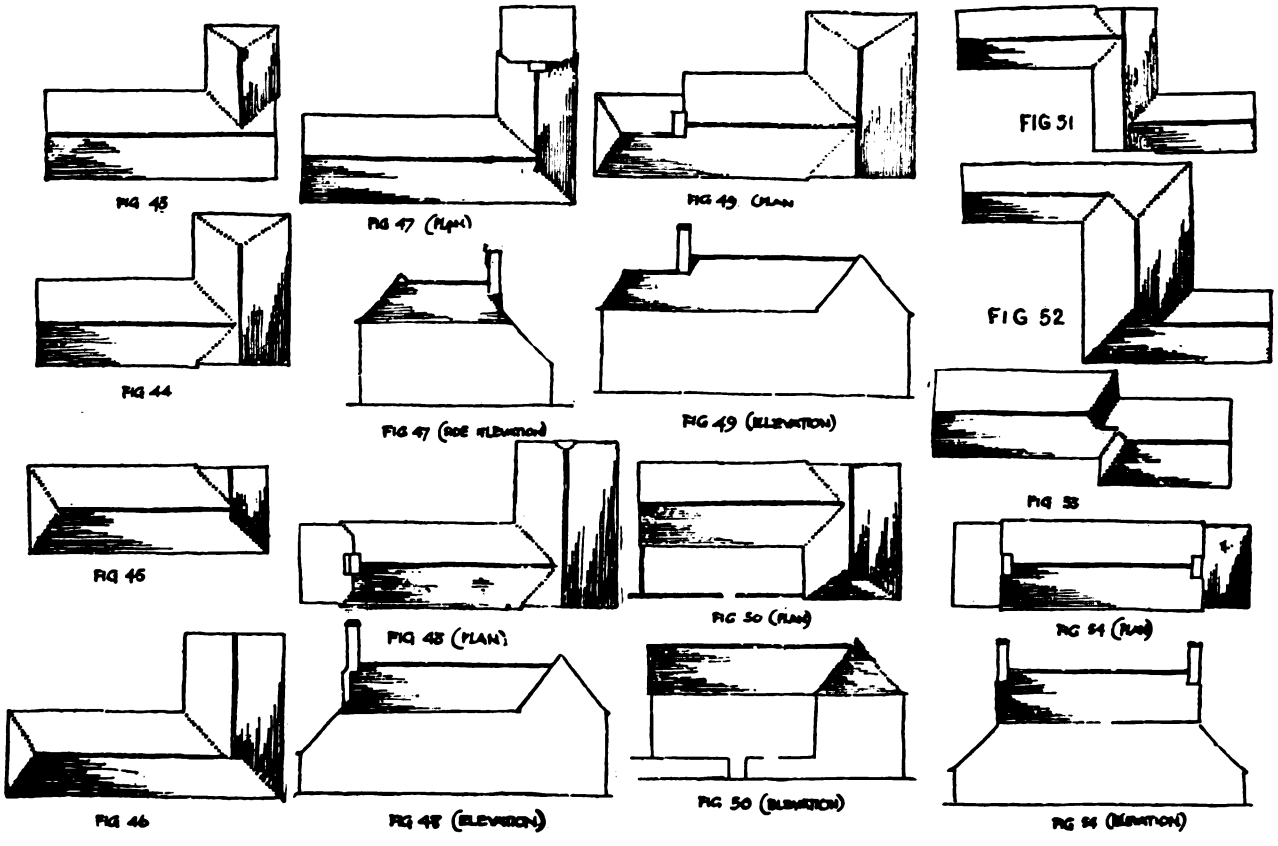
Then there are the roofs in which hips only are used, as in Fig. 37. Interest is added by slight deviations from true hipped ends, as shown. This arrangement admits of still further variations. For



instance one of the hipped ends might be carried down as a "cat slide," as in Fig. 38; or a hipped gable may be substituted for one of the hipped ends, as in Fig. 39. Variations of this kind which prevent an exact repetition of the extremities are common. Sometimes a small gablet (generally plastered and finished brown) is introduced at the angle at the apex of one of the roofs, as in Fig. 37, in order that a mitered ridge may be avoided. At other times the mitered ridge would be avoided by making one ridge the depth of a ridge tile below the other. The ridge tile in all cases would be half round or hogs back section.

The most interesting L shaped roofs are those in which the hip and gable are combined. There are various ways of doing this. Sometimes a hip is placed at the angle with gables at the extremities, as in Fig. 40. At other times the gable is placed at the angle, while the hips are at the extremities, as in Figs. 41 and 42; or one of the roofs may have a gable at each end, and the other be hipped, as in Figs. 43 and 44; or the main roof may terminate with hips at either end with a gable at right angles, as in Figs. 45 and 46.

Further modifications of these arrangements are suggested by Figs. 47, 48 and 49. Fig. 47 shows Fig. 40 modified by making one roof span narrower than the other, with the addition of a "cat slide" at one end. Fig. 48 shows a similar modification of Fig. 42; while Fig. 49 shows how Fig. 44 could be amended by the incorporation of an idea from Fig. 14. I might go on multiplying such variations; and it is quite easy once the principle is understood that a gable at the angle involves some kind of hip treatment at one of the extremities, if not at both, and that a hip at the angle involves gable treatment of some kind at one of the extremities, if not at both. It always adds to the interest if the gables or hips are not exactly alike, though they may be nearly so; while, moreover, it is important for one roof to be subordinated to the other. Once these principles are grasped it is possible to keep on making variation after variation. The addition of a projecting porch to any of the plans with either a hipped end or a gable would alone quadruple the possibilities of most of them, while dormer windows add an additional variety. And here I would add that while a dormer with a pitched roof and hipped end is the prettiest of all treatments, it is not advisable to adopt such a treatment if there are many dormers on a roof, for it



will be too crowded. In such cases flat roof dormers are to be preferred.

Fig. 50 illustrates a very effective roofing of the L shaped plan which is sometimes found at the juncture of roads. An interesting variation that can be used only in exceptional circumstances is the Z shaped plan. Figs. 51, 52 and 53 give different examples of this.

Then there is the symmetrical treatment of roofs. Fig. 54 shows an ordinary pitched roof with gables and lean-tos at either end; Fig. 55, a hipped roof with the hipped ends carried down as cat slides; Fig. 56, a pitched roof with flanking gables, and Fig. 57 shows the gables carried down as cat slides. Attention should be drawn to the fact that the end elevations of Figs. 56 and 57 are not symmetrical. The departure from strict symmetry destroys the mechanical effect they would otherwise have.

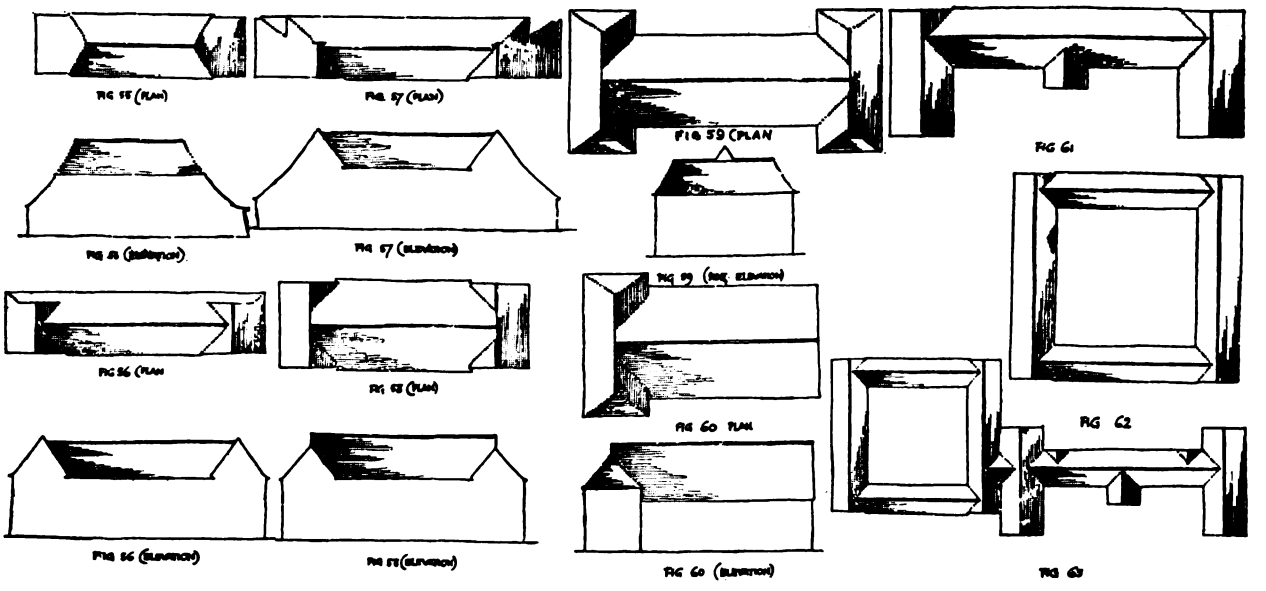
A very pleasing form of roof for buildings two rooms thick is the long roof of wide span flanked by gables of narrow span, as in Fig. 58. This is done in order to reduce the apparent scale of a very large roof. In such cases the connecting roof, where it rises above the flanking roofs, is finished with a gablet. It is never hipped, as generally happens today. The gablet makes a world of difference, and gives distinction to a roof which otherwise would be commonplace. The gablet is generally plastered and finished brown. Sometimes the flanking gables are brought forward and are gabled or hipped. Fig. 59 shows them when hipped.

At times one of these flanking gables is omitted, and in the case of the main roof's being a very wide one, the eaves of the main roof are placed at a lower level than the eaves of the flanking gable, while the ridge is above as before. The idea in each case is to preserve the scale by making the flanking roof narrow. Fig. 60 gives an example.

Now we come to the E shaped plans which found such favor in Elizabethan times. Fig. 61 shows the simplest example of such a one. There is no need for me to multiply examples of these as they are to be found in abundance in architectural literature.

Then we come to the quadrangle, the simplest form of which is given in Fig. 62. Here again I do not propose to give further examples, as architectural literature is full of them, and, as architects are not so prone to go astray in large buildings as with small, it is unnecessary for me to do more than note them. Mention should be made of the combination of the E shaped plan with the quadrangle, which has so often been used in large country houses of our day. Fig. 63 gives an example.

Here and there the hipped gable is to be found on



small houses; and when used occasionally just to take off the apex of a gable above the top purlin it may be used successfully. But generally speaking I am of opinion that it should be used only on roofs of large dimensions, and rarely ever for a roof of less than 25 feet span. It is very effective on high buildings and on old barns, but it is necessary to be very cautious in using it. The home of hipped gables is South Germany. But the roofs there are very wide, a 60 foot span being by no means uncommon. Modern ideas of hygiene do not permit us to use such large roofs for domestic purposes, owing to the difficulty of lighting the centre of such buildings. Something of the same kind is to be said about Mansard roofs, which are not generally available in domestic work. They have been very effectively used in old flour mills and warehouses, while in a certain type of Georgian work they have been used successfully behind parapets. In each case, very wide spans are needed to make them effective. When used without parapets, a building needs to be very high and of considerable dimensions to carry them off.

Let us pass on to consider the decline of roof planning. It is to be attributed to the influence of the reaction of the grand manner upon the vernacular architecture. Fig. 63 illustrates the stage of decline. It shows how the long narrow roof plan of the house one room thick, which was the basis of the old roof plans, gradually gave way to the type which forms the basis of the roof plan of the suburban villa of today. For even in this type of roof the tradition is continuous. The average architect, tired of the monotony of the roof of the Italian villa period which approximates to a square on plan and is hipped on all sides, seeks for variety, not by returning to the fundamental and primary ideas of roof planning of the past, but by adding features culled from the architecture of an earlier date. The result is confusion. It produces a type of architecture that is born of boredom and ends in it, since the more the architect of today seeks to be different from his brother practitioner, the more he is like him. And so things will remain until the inward laws governing the picturesque are fully comprehended.

The great majority of old roofs in England will be found to approximate the types I have described, and

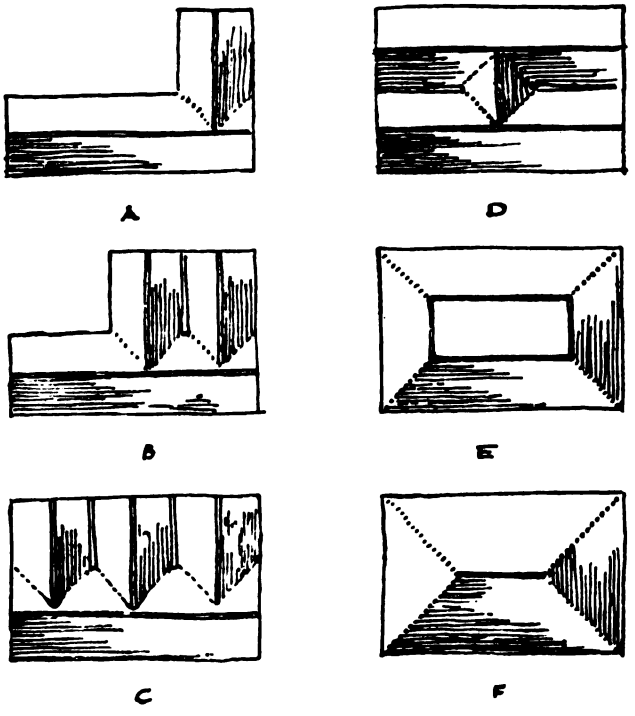


FIG 64

he theory I have enunciated will account for 99 per of old buildings. But dotted about the country there are to be found roofs, odd in shape, which elude classification, and which appear to owe their existence to the whim of their designers rather than to any tradition of roof planning; though doubtless the existence of such a tradition kept such eccentrics within range of sanity. It is to be regretted that in our day the idea of the picturesque has become too closely identified with such exceptional buildings, for it has obscured the existence of a great tradition of design that is as sane and rational as Greek architecture, though fortunately not so circumscribed and hidebound. It is with the hope of creating an interest in this tradition, which will well repay further investigation, for I have dealt with only some of its more fundamental qualities, that I have written. For just as I believe that any widespread revival of architecture depends finally upon the revival of its lower branches in ordinary building, so I am persuaded that the secret of design in all such building is to be found in a comprehension of the principles of roof planning. If we clearly understood these principles, we should begin to make rapid advance, for there would be something aroused which our thinking could crystallize. We should find it easy to do the exceptional things, if we understood more clearly how ordinary things should be done. The gulf between architecture and building would be gradually bridged, for the higher forms of architecture would become more flexible as they became organically related to the lower.

The Dance and Architecture

What have etchings of dancers to do with architecture? Why publish them in the JOURNAL?

In a preface to a catalogue of Troy Kinney's etchings, Mr. Robert J. Cole says:

> "In etching Kinney found a medium at once delicate, swift and strong. He could scratch into his plate the very brutality of Bolm's warrior stride; or draw *The Seventh Veil* from beauty as though by the warm breath of an oriental afternoon.
>
> "His dancers are seldom in repose. It is rhythmic movement that he seeks and captures * *
>
> "But in learning how to represent the dance truly, the etcher has made no compromise in his own technique. Indeed, the difficulties of telling the truth revealed in these complex rythmic fugues has forced an intensive development of his medium. It is free expression that he seeeks, a harmony and happiness of design that shall lift the beholder into a like harmony and happiness of mood."

It is just for this reason that architects should rejoice at the opportunity of studying Kinney's etchings. He has given us not so much pictures of posed dancers or of dance poses, but the dance itself; given it to us through the medium of the etched line, a hard line at best. Architects primarily should give us buildings and not drawings of buildings; buildings which tell us something of their use and purpose and why they were built. Their drawings should speak to us in three dimensions, in light and shade, and in color. Kinney gives us flesh and blood, life, action, music, color,—all with an almost unbelievable economy of line. Surely then the architect should be able to give us the message of mere stone and brick and wood by the use of the line.

By looking at these reproductions in the JOURNAL, perhaps we can learn from Troy Kinney something of how to do it.

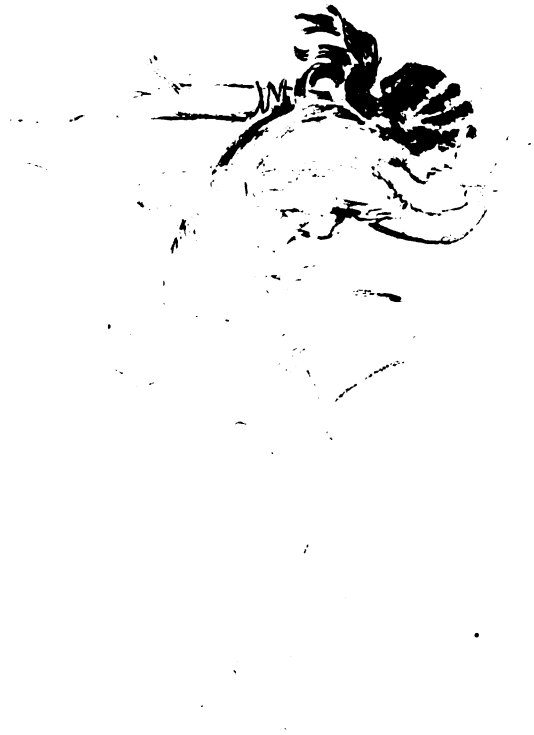
B. J. L.

The Handbook of Architectural Practice

Announcement of the forthcoming publication of the Handbook of Architectural Practice is made in the advertising pages of this issue. Begun and brought nearly to completion by the late Frank Miles Day, the work has been finished under the guidance of Milton B. Medary, Jr., and Edwin H. Fetterolf, of Philadelphia, who were the collaborators with Mr. Day during the time when he was actively engaged in the preparation of the work.

The Handbook is quite the most important book of its kind ever offered to the architectural profession, for it contains the result of many years of careful study, of a painstaking analysis of the methods of office practice used by the leading architects of the United States, and suggested forms for use in many of the important steps necessary in all building undertakings. As a book of information for acquainting the client with the nature of an architect's duties, as well as for informing a client as to his own responsibilities, the Handbook is certain to be used freely by architects who realize the opportunity it affords.

SOPHIE PFLANZ IN THE DANCE OF THE JEWESSES, CLÉOPATRE
After the etching by Troy Kinney



NYMPH
After the etching by Troy Kinney

"Viva Andalucia"
After the etching by Troy Kinney

PAVLOWA IN THE CARMEN BALLET
After the etching by Troy Kinney

Adolph Bolm in Prince Igor
After the etching by Troy Kinney

ALLEGRO
After the etching by Troy Kinney

SWALLOWS
After the etching by Troy Kinney

TORTOLA VALENCIA
After the etching by Troy Kinney

The Greater Paris Competition

By NILS HAMMARSTRAND

I. The Problems

SOME of the most important of the city planning problems of Paris have long been the object of investigation and discussion; preliminary projects had been framed before the war with regard to improvement of street plan, creation or reservation of public open spaces and provisions for better harbor facilities. At the outbreak of the war, operations on a considerable scale, aiming at the opening up or widening of streets had even been begun, as explained by the writer in previous articles.* Several new subway lines were at that date in course of construction, and additional lines had been planned, while a better and increased water supply and the destruction and rebuilding of unsanitary quarters were being considered. For the housing problem, additional construction, on a rather considerable scale, of low-cost houses for workers was being planned by the municipality. Finally, the negotiations between the city and the state regarding acquisition by the former of the fortification grounds had been resumed, and an agreement seemed near. The difficulty in arriving at an agreement had in reality long been an obstacle to that comprehensive handling of the city planning problems of greater Paris, the necessity of which had become increasingly evident.

Since then, events, while temporarily checking or retarding effort, have made this necessity even more obvious, even though they have given rise to new and greater difficulties, which are foremost of an economic or financial nature,† into the details of which it is not proposed here to enter, although some figures apt to throw light on this aspect of the matter, will, however, be quoted in the following.

The Housing Problem

The housing question claims, above all, our first attention. In preceding articles the writer has dealt at some length with Paris' housing problems, pointing out that the pre-war municipal activity in this connection fell very far short of attaining any solution, and that it was, perforce, limited to the erection of low-cost houses within the city boundaries, where, owing to the high land values, only the construction of multiple dwellings was possible. During the war departmental agencies entered into action, and several garden suburbs were planned in the outlying suburban areas. Continuation of this activity, on a larger scale, will depend on the financial support of the State from whom subventions to the amount of 2,000,000,000 francs have been asked for this purpose. The interests of the city and of the Department of the Seine have thus become identified, and it has been avowed that the housing problems of Paris are principally to be solved in the suburban areas, chiefly in the outlying ones. Thus the greater Paris of the future is actually in process of being constituted; the whole urban agglomeration, the adjacent territories and the neighboring towns are beginning to be looked upon as one sphere of interest, as a "conurbation," in reality undivided by inner boundaries.

In recognition of this, the modern city planners' point of view, the authorities of Paris launched last year the Greater Paris competition, and now that the city is facing the necessity of another great "improvement loan"—of at least 1,500,000,000 francs—it is being declared that this loan ought to be a departmental one, "as the interests of the suburban regions are absolutely inseparable from those of the city, especially in the matter of public improvement."*

In reality the suburban regions are, in an even greater degree than the city, in need of this coordination of interests and of obligations. In several of the suburbs, housing conditions are worse than anywhere in the city, and the suburbs possess neither the organization nor the economic power which would enable them to handle their own housing problems independently in a satisfactory way. Statistics of tubercular and general mortality in certain suburbs of Paris speak a language not to be misunderstood, for while according to the census of 1911, the general mortality in Paris proper was 17.1 per thousand, it was 21 in the rest of the Department of the Seine,† and in all of the 78 communities outside Paris, except one, the general mortality was higher than in those two arrondissements of Paris where the housing conditions are the best.

Before the war, the city was authorized to raise a loan of 200,000,000 francs, to be spent in building low-cost, sanitary houses for workers. In the light of the conditions above illustrated, which have been greatly aggravated in consequence of the war, the recent demand of State credits in the amount of 2,000,000,000 francs for similar purposes seems well justified. Similarly, while 15,000,000 francs was assigned before the war to the purpose of demolishing unsanitary quarters in the city proper, 150,000,000 francs are now being mentioned as representing the immediate need. This expenditure is planned especially for fighting the ravages of tuberculosis. Evidently, in this case as in the other, the decupling of the sum indicates not only changed economic conditions, but also a very much aggravated hygienic danger.

Thus, on one hand we find social evils of the gravest nature, graver than ever, demanding to be dealt with through constructive action on a large scale without delay; on the other hand, we see greater obstacles than ever offering resistance to such action, the increased cost of labor and of materials and the high land values uniting to make the task a very difficult one.

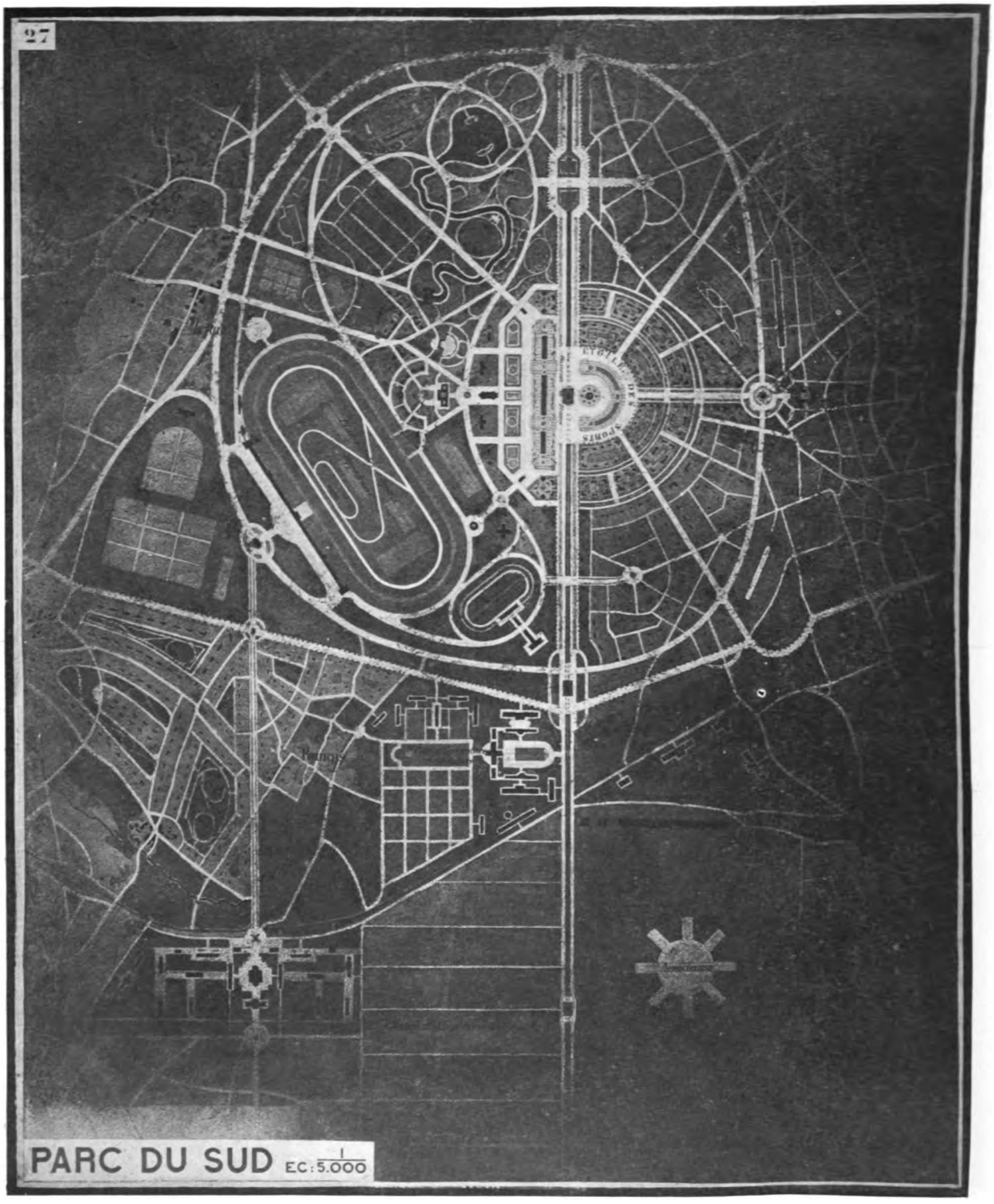
The situation is still more aggravated—one may hope only temporarily—through the fact that French cities do not have the right of expropriating land for extension purposes. In this respect, French legislation is behind that of England, Germany, and several other European countries.

*JOURNAL of the American Institute of Architects, June 1918, February 1920.

†See the Rapport général sur le projet de budget supplémentaire de 1919 et le projet de budget de la ville de Paris pour 1920, par M. Louis Dansset, conseiller municipal. (Conseil Municipal de Paris: Rapports et documents, 1920, nro 109.)

*Rapport général sur le projet de budget pour 1920, p. 28.

†For a comparison, it may be stated that the general mortality in Greater London, according to the latest available figures, is 13.1 per thousand.



THE GREATER PARIS COMPETITION.

Proposed Park Extensions Southward. A. Agache, J. Auburtin, A. Parenty, E. Redont, Second Prize Winners, First Section.

But work of decentralization, according to methods promising satisfactory results, will at all events have to be begun and carried through, and here the important problem of improving the suburban communications presents itself.

Local and Suburban Communications

In a recent publication by M. Henri Sellier, member of the General Council of the Department of the Seine, the insufficiency of transportation to the suburban areas of Paris is being strongly emphasized, and the author does not hesitate to declare that "the defective organization of the public means of transportation in the Department of the Seine is responsible for a situation troublesome in every respect."* Nor can there be any doubt that the defective conditions of transportation constitute at least one of the main factors which have hampered the development of Paris. We see this confirmed by the results of the Greater Paris Competition, in which the ablest of the competitors spent their best efforts on the problems of communication, as we shall see later. The service which the suburban lines of communication now offer is far from answering the needs. Suburban tramways especially built for rapid transit will have to be constructed, and part of this function will have to be cared for by improved steam railways and extended subway lines.

The latter are now the chief means of "inner transportation." Their present importance may be estimated by the fact that they transported about 625,000,000 passengers in 1919, as against 395,000,000 in 1913. The lines in operation have a total length of 92 kilometers. Additional lines, aggregating 51 kilometers, are in course of construction. They will complete the system as it was planned before the war, for which a loan of 240,000,000 francs was authorized in 1911. 100,000,000 francs have been raised and spent, but now it is estimated that the completion of the system will take at least 350,000,000 francs instead of 140,000,000.

Public Open Spaces

In touching upon suburban rapid transit lines, we have to emphasize their particular importance with regard to overcoming those distances which separate Paris from some of the invaluable parks and forests in its neighborhood. The parks of Versailles and of St. Cloud, the forests of Marly, of St. Germaine-en-Laye, Meudon, Verrieres, Bondy, the Bois des Fausses Reposes and the Bois Notre Dame are all situated in the suburban areas, even if most of them are totally or partially outside the Department of the Seine. The beauty of some of these parks and forests is world-renowned; their aggregate area is much greater than the area of Paris; it remains to make their accessibility more commensurate with their beauty and their size.†

That the now existing suburban parks and forests should be preserved has, of course, been recommended by the competitors, some of whom also have proposed to develop other outlying areas into parks. Attention has also been paid to the difficult problem of creating new open spaces in the interior of the city. That the provision for a number of small parks and playgrounds in the most populous parts of the city is desirable, can scarcely de denied. Fortunately, recent legislation regarding expropriation on account of unearned increment and regarding excess condemnation in the interest of public utility will greatly help to make operation of this kind less onerous. Besides, the city will gain possession of the military barracks within the fortifications, according to the convention approved by the law of April 19, 1919, regulating the future use of the fortification grounds, and of the military establishments and at least some of the grounds now occupied by barracks might be transformed into parks and playgrounds.

Transformation of the Fortifications

To compensate for the cession of the old military barracks by the State, the city will have to build a number of new barracks and a military hospital, partly on the transformed fortification grounds. According to the agreement the city will gain possession of 305 hectares of these grounds which in their totality measure 444 hectares. On one fourth of the grounds acquired by the city, low-cost houses will have to be built; the building plots within the remainder of this area, the city may sell. If this convention is upheld, one may thus expect to see the greater part of the area of the old fortifications exploited in building many-storied apartment houses, ranging from the most expensive dwellings on the west to the municipal low-cost tenements, chiefly on the east. In all probability, detached family houses will be built only on a small fraction of these grounds, if at all. The area remaining in the possession of the State is in part already occupied by public establishments, in part exploited by various railway lines; the remainder will, as already mentioned, be reserved for the erection of the military barracks.

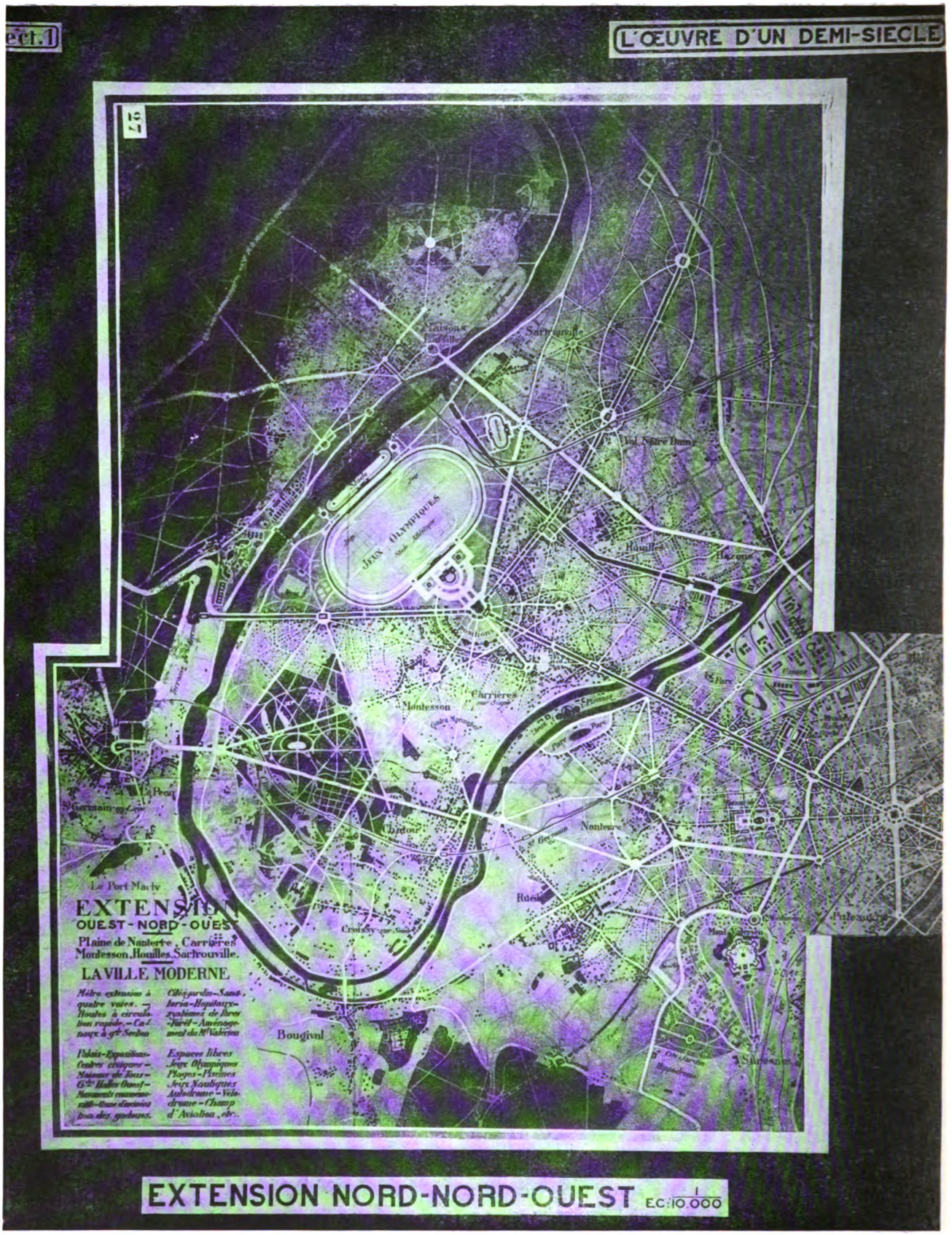
Immediately outside the fortification girdle, the glacis formed a zone, 250 meters wide, for military reasons kept free, or almost free, from permanent buildings—the so-called *zone non ædificandi*. Some public buildings have been erected in the zone, which also to a great extent has been covered by all sorts of temporary structures serving various uses, among which are many miserable shacks sheltering human beings. It has been decided that the entire zone shall be expropriated and be transformed into public parks and playgrounds, exception being made in regard to certain parts which now serve or will have to serve other public uses. Besides the land needed for public roads, railways and existing schoolhouses, an area of 15 hectares, south of the Bois de Boulogne, will be set aside for the purpose of erecting, in a garden setting, a vast building for horse shows and agricultural exhibitions.

A park girdle thus created around Paris would, so to speak, monumentally commemorate an old city limit, as the "Grands Boulevards" already commemorate one, and the "Boulevards extérieurs," another. From a practical and even from an esthetic point of view, the value of the park girdle will no doubt be somewhat impaired through being intersected by many radiating arteries, for the surface traffic traversing this park region is, indeed, very great. In reality, the position of the zone is not a strictly peripheral one, but may be said to mark the limit of the actual

(*Continued on page 339.*)

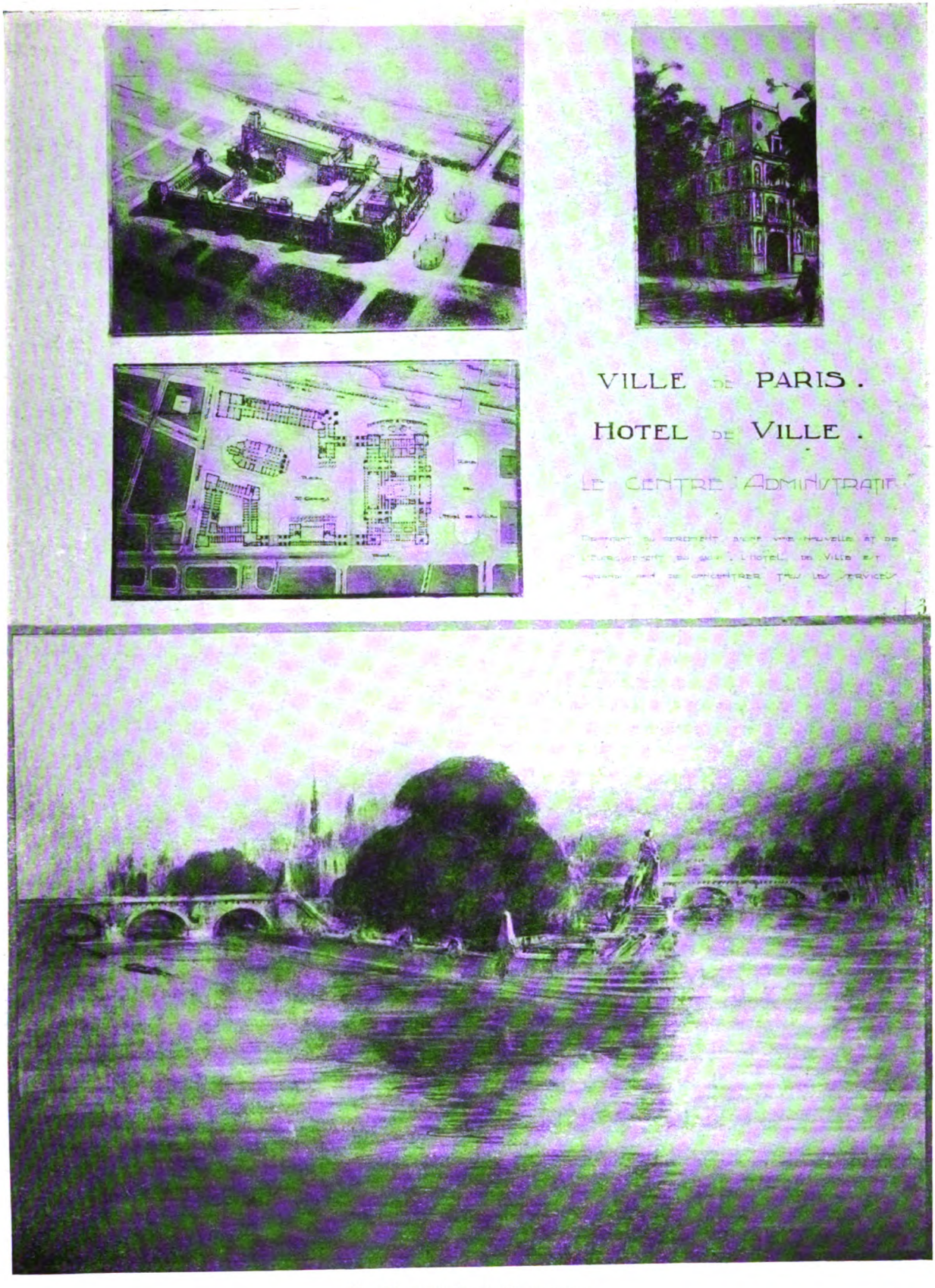
*Henri Sellier: Les Banlieues Urbaines et la Réorganisation Administrative du Departement de la Seine.

†The forest of St. Germain-en-Laye alone covers 4400 hectares, while the area of the city within the fortifications measures 7800 hectares.



THE GREATER PARIS COMPETITION.

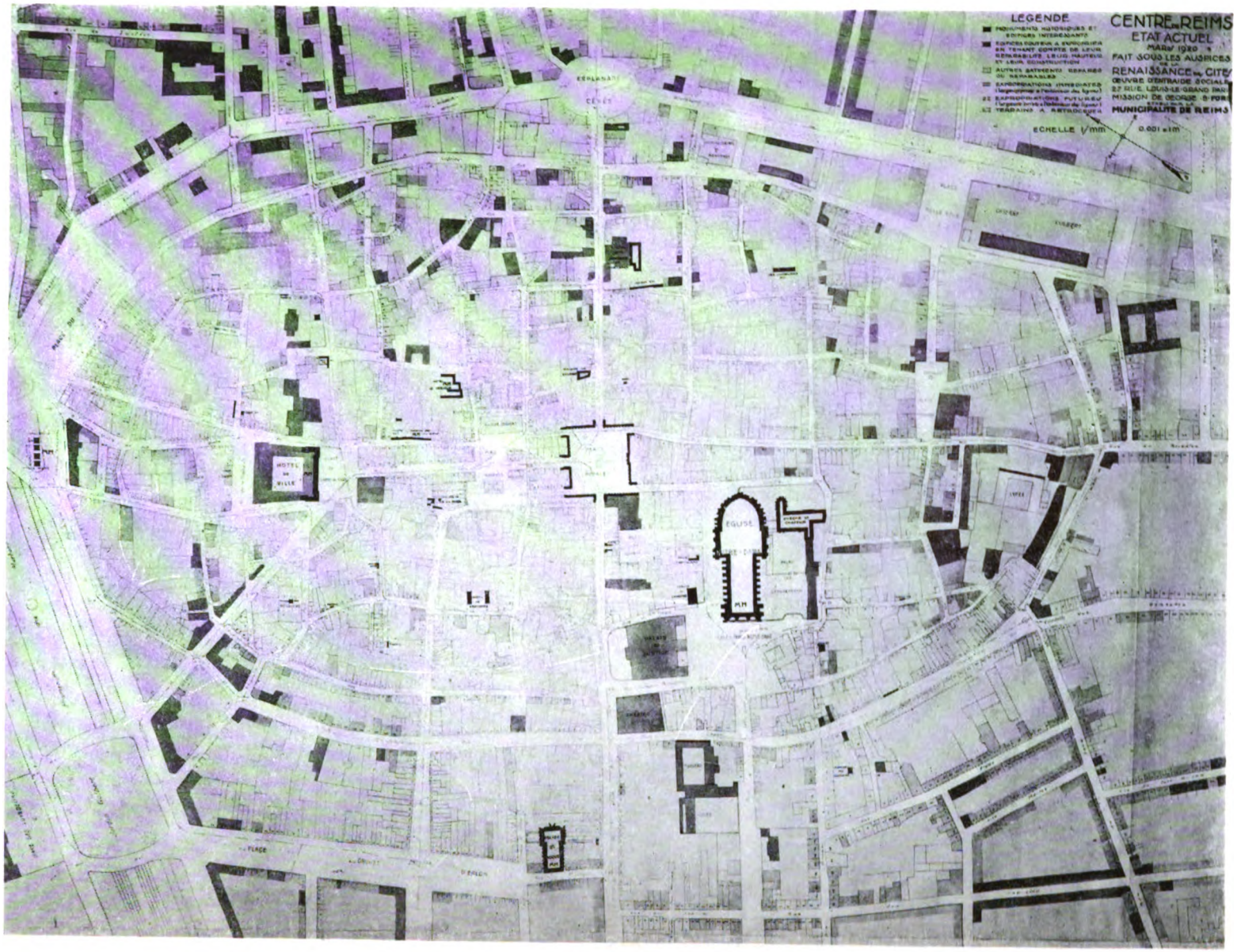
Proposed Park Extensions to the North and Northwest. A. Agache, J. Auburtin, A. Parenty, E. Redont, Second Prize Winners, First Section.



THE GREATER PARIS COMPETITION.

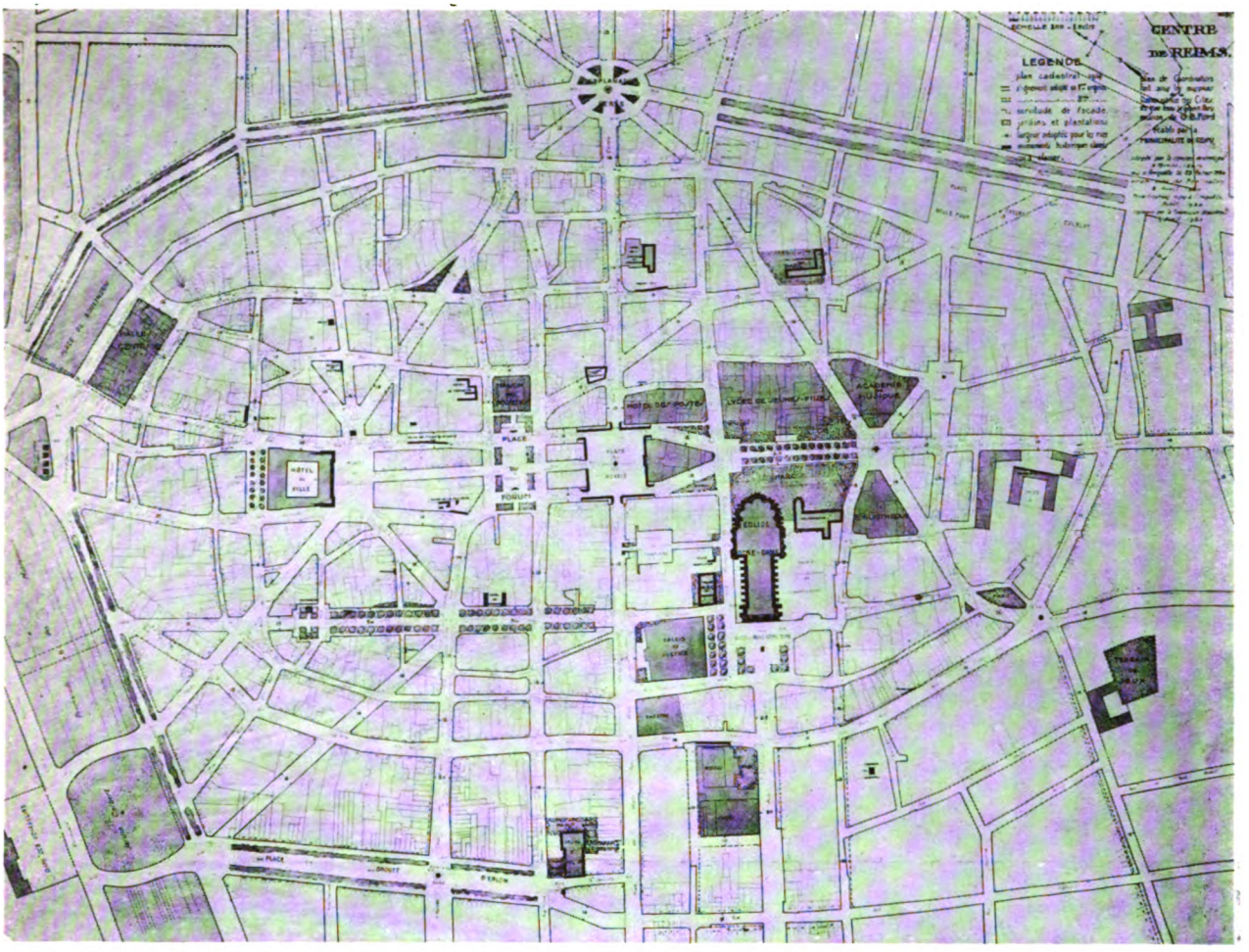
TOP. Proposed Enlargement of the Hôtel de Ville, Including the Piercing of a New Street, the Enlargement of the Quai, and the Enclosing of the Church of St. Gervais in the Courtyard. M. Coppin, Rewarded Project, Fourth Section.

BOTTOM. Proposed Monument on the Western Extremity of the Île de la Cité. J. Molinié, C. H. Nicod, A. Ponthier, Third Prize Winners, First Section; Second Prize Winners, Second Section.



RHEIMS

Plan showing the extent of destruction by bombardment. Profiles in black indicate edifices that must be restored or preserved. Those in lighter tone show buildings susceptible of reconstruction, while all the part in grey represents that which has been demolished beyond restoration.



RHEIMS. The Plan prepared by George B. Ford, and formally adopted by the authorities.

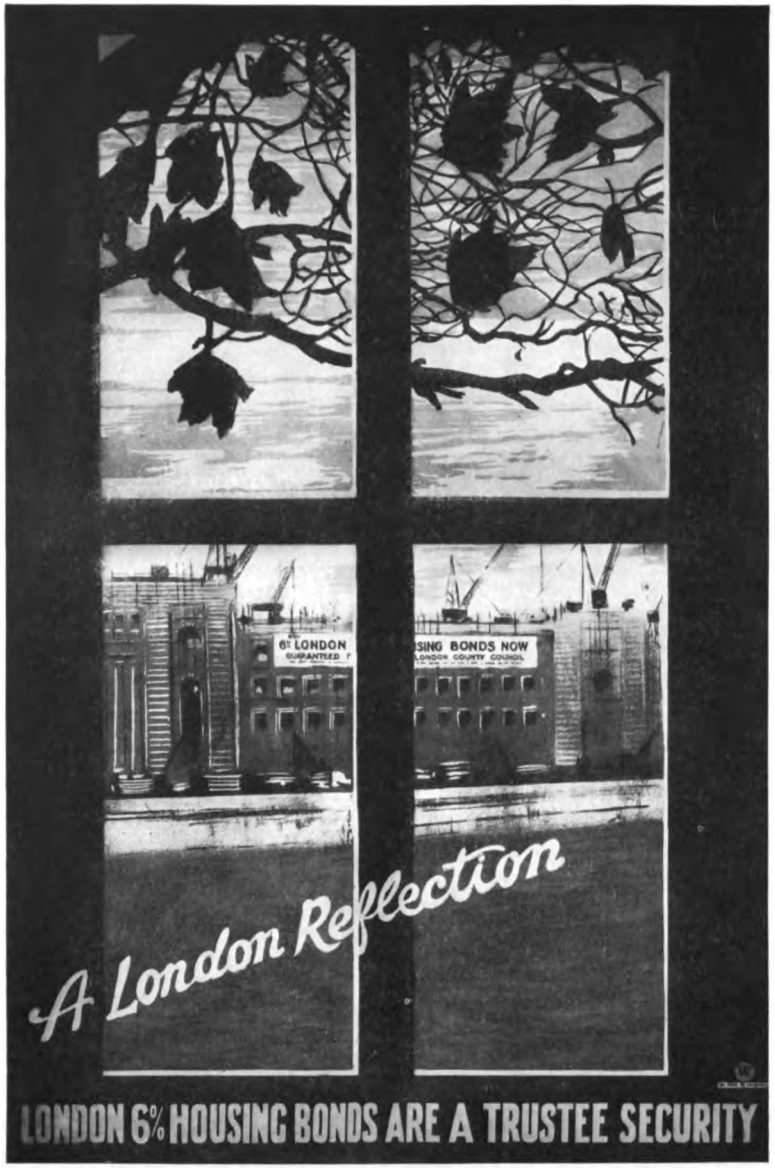
The Rebuilding of Rheims

Of all the destroyed towns in France none claims a greater interest than the ancient city of Rheims. Very likely the interest centers about the cathedral, as is natural, but that is far from being the only importance attaching to this historic town. Indeed, modern as it was by comparison, the Hotel Lion d'Or, now utterly obliterated, will be a fitting subject for regret. But there were many other edifices of remarkable interest and in making a new plan for Rheims, these have been used as the point of departure.

Now, the new plan for Rheims has been formally adopted by the authorities of the city and by the Superior Town Planning Commission, which must, under the new law, approve all local schemes. The plan was prepared by Mr. George B. Ford, a member of the American Institute of Architects, who has been in France since soon after the outbreak of war. The history of the plan is somewhat unusual—it is not often that an American is to be found preparing plans for French cities—and, as is usual in town planning practice, no matter in what country it may be carried on, this particular plan had to run the gamut of property holders, vested interests, esthetic preferences, and practical considerations. Its final adoption is a tribute to Mr. Ford's long and patient labors.

Rheims is the most important centre of its region, has large manufacturing interests, and is today a city of probably something less than 100,000 people; Mr. Ford's plan envisages a future growth of three times that number. Some idea of the extent of the demolition and the resulting reconstruction problems may be gained from the fact that while it was thought possible that 30,000 persons could be housed in the 2,000 available houses,—all that were left of the original 14,000—the entire population of the city now dwells in those 2,000 houses.

The general scheme of Mr. Ford was based upon grouping the development about the historic central part, connecting it with the exterior portions by spacious traffic arteries. The fact that so much of the town had been destroyed made it all the easier to plan for such thoroughfares, although there was stout resistance to the disturbance of both sentimental and property interests, even where no trace remained of the buildings that once stood upon the sites.



England is offering Housing Bonds in a great national loan for home building. The illustrations show two of the posters used in advertising the loan for London's housing undertakings, which involve many millions in money, and the building of a small overflow city, as a first step in decentralization of population.

The Greater Paris Competition

(*Continued from page 333.*)

center of Greater Paris. Its relation to the whole urban agglomeration is well characterized by the fact that some of the competitors, for good reasons, have proposed to erect new great railway terminals in its immediate vicinity, the old railway terminals then being reserved for the suburban and local traffic exclusively.

The Great Railway Terminals and the Revision of the Street Plan

Any changes in the location of the great railway terminals will, of course, greatly affect the problems of the street plan. Such conclusions in regard to the revision of the street plan at which the competitors arrived, were accordingly very much determined by their handling of the problem of railway terminals. This phase of the traffic problem did not, as far as the writer knows, receive any attention before the war, and the preliminary projects for the revision of the street plan framed by the Commission d'Extension de Paris did not envisage changes in the position of the great railway terminals. However, the necessity of combining these two aspects of the traffic problem is evident, just as is the special difficulty of providing for the indispensable unified handling of the railway problems. Less difficult to overcome is the lack of an up-to-date comprehensive survey of Paris' street circulation, a survey which should have preceded the competition, and the lack of which has been a handicap to the competitors.

In speaking of the revision of the street plan, it seems pertinent to emphasize the belief that the idea of one central railway station or of centrally situated railway terminals is an incongruous one in a city the size of Paris. In reality, the centralization of railway terminals may still be advantageous in a city of 500,000 inhabitants; in a city of 2- or 3,000,000, it mainly serves to increase that congestion of the center which should be counteracted as much as possible. In the physical structure of a city such as Paris, the solution of a wide "perimeter of radiation" very naturally suggests itself, involving the placing of the great railway terminals on a perimeter considerably distant from the physical center of the city—such a perimeter, for example, as the fortification girdle in Paris and its encircling military zone. If these terminals are properly connected with each other by means of subterranean railway lines; if, further, a well coordinated system of local railways is put in connection with them; and if, finally, the replanning of the street system has the position of the railway terminals constantly in mind, there should be some guarantee for attaing that distribution and dispersion of traffic which is to be aimed at. Several of the competitors, in a more or less definite way, have suggested a solution of this kind, placing the great railway terminals in the immediate vicinity of the present limit of the city, and the first prize-winners, in the comprehensive competition, expressly reject the idea of a great central railway station. Only in one of the comprehensive projects found worthy of being distinguished with a prize was this idea put forward.

At present all the great railway terminals of Paris, except one, are situated on a circuit of about three miles diameter. The city within the fortification girdle may thus be said to be made up of an inner zone inside this circuit and an outer zone between this circuit and the fortifications. If we regard the whole urban agglomeration, then a third zone, embracing the suburbs, has to be taken into consideration. If we ask in which of these three zones radical improvements of the street plan are most needed, it is not, as one would be inclined to believe, in the innermost zone. Great as the need of certain improvements in this zone may be, it is even greater in the two outer zones, which still are divided by the fortification girdle. It is in these areas that the problem of the new railway terminals will have to be solved. Here the necessity of creating broad radiating traffic arteries especially imposes itself, the new location of the railway terminals being a decisive factor in determining the position of some of these radials.

In the preliminary projects for the improvement of the street plan which were framed before the war, scarcely any attention seems to have been paid to this phase of the traffic problem. No new radiating traffic arteries were suggested, nor was any improvement of the existing ones proposed. A more peripheral position of the railway terminals was not at that time taken into consideration nor did the planning overstep the limit of the fortifications, which circumstances serve to explain this deficiency in the preliminary plans. On the other hand, this important need has been duly emphasized in the projects of several of the competitors, in consequence of their comprehensive dealing with the problems.

Some Consequences of the Lack of Foresight and Comprehensive Planning

Some of the main roads that radiate from Paris are at present in a condition prohibitive of rapid tramway traffic. At certain points in the suburbs, they are altogether too narrow, and this narrowness singularly contrasts with the exaggerated width of many secondary streets in the peripheral areas of the city. The too great width of the latter is as much a failure in planning as is the too small width of the former. The deficiency of radiating arteries indicates that the development of the city and that of the suburbs have been proceeding separately. It is, in other words, one of the most conspicuous evil consequences of the lack of comprehensive planning.

Under the state of affairs of which these conditions are a result, city planning as it is being understood today, has been out of the question. On the part of the city, there has been no extension policy, no land policy, no housing policy in the true sense of the word. The city has occupied itself with its streets, its parks, its sewers, water mains, inner communications, building restrictions. Beyond its limits, the suburbs have in a similar manner, each disregarding the existence of the others and of the city, attended mainly to the streets and their accessories. It has been a veritable negation of the idea that a city can live and develop healthfully only if regarded as an organism, for the disorder and unhealthiness of one of its parts affect the health and vitality of the whole body. Unusually bad housing conditions have arisen, because in an urban agglomeration managed in so irrational a way, city planning has necessarily failed to achieve its main purpose, the proper housing of the people.

The New Departure

All the more significant are those signs which indicate the approach of another and better state of affairs. The foundations for the greater and yet better Paris of the future are about to be laid, this process of development involving municipal reorganization and consolidation, unified extension planning along truly constructive social lines, unified public exploitation of the public means of conveyance. Initial steps have been taken with the last mentioned aim in view, the question having been studied by a special commission. Its proposals implying the acquisition by the Department of the Seine of the 43 autobus lines and the 117 tramway lines, now exploited by private companies, will soon be acted upon.

Scope and Significance of the Competition

Finally, the Greater Paris competition has proclaimed the advent of a new era in the development of Paris. The competition having been based on intercommunal and interdepartmental agreements, the competitors have been at liberty to extend their efforts beyond the limits of the Department of the Seine. They have been called upon to devote attention to every phase of urban development. So far, we have touched only upon some of the questions with which they have had to occupy themselves, but others will have to be mentioned before we proceed to review the projects. Great interest is attached to the various proposals regarding zoning, in the suburban areas. Industrial districts have been indicated by several of the competitors. Interesting suggestions have been made aiming at a rational grouping of residential districts for industrial workers, while the problem of developing garden suburbs to answer the various needs of different classes of the population has received ample consideration. It has been proposed to develop great suburban areas into exhibition and pleasure grounds and into a special "university city." Vast suburban cemeteries have been planned. Extensive grounds for suburban hospitals have been set aside. The problem of providing spaces for the needs of aerial traffic has been dealt with. The problems of the railway communications have been carefully studied, especially so by the first prize winners, in the comprehensive section of the competition. The important problem of providing Paris with harbor facilities answering its needs has been duly taken into consideration. Finally, the paramount question of securing the food supplies necessary to the immense city of the future has been well taken care of by several of the competitors.

What has been said may be sufficient to prove that the competition has been a truly "comprehensive" one. Before reviewing its results, it remains to be mentioned that a special commission, composed of the prize winners, has been formed to serve as an advisory council to the "Direction de l'Extension de Paris" in its laborious task of evolving those comprehensive extension plans, the intended framing of which has been the *raison d'etre* of the competition.

(*To be continued.*)

A Congress of the Building Industry

The report of the Post-War Committee on Architectural Practice dealt at considerable length with some phases of the building industry in the United States and recommended that the Parliament of the Building Industry in England be studied with a view to the possible formation of a central affiliation of the building interests in the United States. The Convention of the American Institute of Architects held in Washington in May recommended the question to the consideration of the Board of Directors of the Institute and therefore, coincident upon the meeting of the Executive Committee of the Board at Atlantic City early in August, a preliminary conference was held for the purpose of discussing the advisability and the feasibility of some national conference of the building industry in the United States. At this preliminary conference there were present some fifty men serving variously in the industry who volunteered their time and effort at the call of the Institute. As a result of the first evening meeting a small committee of ten was appointed to meet the next morning, to draft an invitation for a larger conference to be held in Chicago in September. The personnel of the small committee was as follows:

John H. Donlin, President, Building Trades Dept., American Federation of Labor.
A. P. Greensfelder, General Contractor.
Henry H. Kendall, President, American Institute of Architects.
Robert D. Kohn, Architect, New York City.
W. G. Luce, General Contractor, Chicago.
General R. C. Marshall, Jr., Gen'l. Mgr., Associated General Contractors of America.
Thos. R. Preece, Vice President, International Union of Bricklayers, Masons and Plasterers.
E. J. Russell, Architect, St. Louis.
Wm. J. Spencer, Executive Sec'y, Building Trades Dept., American Federation of Labor.
Col. John R. Wiggins, General Contractor.

Organizing Committee.

Robert D. Kohn, Chairman *pro tem.*
Wm. Couper, Secretary *pro tem.*

The above committee then organized with Mr. Kohn as permanent chairman and with Mr. Couper, Mr. William J. Spencer, and Mr. Charles Harris Whitaker as Executive Secretaries. Mr. Couper acted as Secretary of the sessions held.

As a result of these activities, the following letter has been addressed to representatives of various elements in the building industry:

At a meeting at the Chalfonte Hotel, Atlantic City, N. J., on August 6, 1920, representatives of many elements of the building and construction industry discussed the advisability of founding a congress for the promotion of the industry by harmonizing existing

differences of opinion or establishing new methods of procedure. A committee of ten (the members are indicated above) was appointed to select a representative organizing committee which would in turn convene the said congress. The action taken at the meeting is embodied in the following resolution, which was adopted:

WHEREAS, the history of all civilization links periods of prosperity with those of great building and construction activity, and

WHEREAS, the building and construction industry is now facing difficulties which are seriously retarding national progress, and

WHEREAS, this condition is not for the best public interest because of unemployment, congested habitation and insufficient facilities, and

WHEREAS, it is believed that the solution of problems locally or from the standpoint of any single element, without the concurrence or counsel of the other elements, cannot remedy the chaotic conditions now existant.

Now, therefore, be it

RESOLVED, (*a*) That a committee of representatives of the interested elements meet at Chicago on September 27, 1920, to convene a congress to provide the ways and means of conducting such a study to the end that the various factors which have retarded necessary building and construction may be eliminated; and

(*b*) That a thorough study be made of the relations of the various elements and industries which enter into building and construction activities.

(*c*) That a building and construction congress be permanently established to give continuity to the nationally beneficial objects which gave it birth.

The Congress which thus seems to be assured for September in Chicago will face, as its first step, a fairly simple task. It is asked to meet for the purpose of finding ways and means: first, for making a thorough study of the building industry as a mechanism in which there are many parts, in order to find out the precise nature of the difficulties that now render it so largely inoperative; and second, after discovering the nature of these difficulties, to find ways and means of eliminating them.

This is sound procedure. The building industry does not know what is the trouble with it. There are a thousand minds as to what is the matter and as to what to do about it. The first thing to do, then, is to find out actually what is the matter, and to that end the Congress should provide the ways and means for getting at the facts in the case. It should not be led astray by any schemes for improvement or by any of the patent pills and plasters advocated by the self-appointed quacks. It should set itself resolutely and deliberately to the work of getting the best diagnosis that skill can supply, and then, and then only, should it undertake to prescribe for the patient.

As we have already pointed out editorially, this is a momentous opportunity for the architect. His skill and training, his broad viewpoint of the industry as a whole, his impartial position as a professional serving all interests faithfully, qualify him to be of indispensable service in carrying out the study which is so desperately needed at this moment. In no movement ever organized for the promotion of building has there been such a chance for him to demonstrate the nature of his professionalism. It is perhaps not risking too dangerous an assertion in predicting that the success or failure of the movement will largely depend upon the part played by the architectural profession.

Housing in New York State.

The Governor of New York State has called a special session of the legislature to deal with the housing shortage in the State, and especially in New York City. The history of building perhaps records no event so significant. A great State and our greatest city have reached a point where they cannot begin to house their population. It is true that a large section of that population has never been adequately housed, but this social malady has taken a new turn and threatens to become a very serious question

But in the face of a crisis of this kind the interested observer cannot but smile at the childish gestures and rather frantic outcries of the world-renowned metropolis. It is not that the child cries as with the cholera morbus, but that the child exhibits every outward appearance of believing that it is the victim of the first case of cholera morbus ever visited upon a human community. It prattles away about all sorts of pills and plasters, just as though the pathology of social ills was an unknown history. Its wise men utter solemn adjurations; its bankers and money-lenders explain the theory of interest and capital; Senator Calder's special Senatorial Committtee earnestly counsels tax-exemption for loans and new houses, and a reduction of building standards; the tenement house commissioner is reported to have advocated municipal housing with no provision for heat, on the ground that heat is now too expensive to be included in what is commonly called housing; a Mr. Hirsch offers an erudite way of building single houses at $10,000.00 each; and the newspapers generally reveal the hopeless ignorance which characterizes their treatment of these economic questions.

One concludes, from reading and listening, that the legislature of New York may take some action in the housing matter, but from present appearances that action will be based not upon the housing needs of the people but upon the financial needs of those who control the agencies upon which the building of houses is at present dependent. This is a sorry prediction to make, but no other is possible. The splendid report of the Housing Committee of the Reconstruction Committee will very likely be wholly ignored in favor of the tears and lamentations of money-lenders, speculative builders and landlords. But the case will not end with this trial. Let us hope that before too many appeals are taken by a houseless people, some glimmers of intelligence may pervade our present dense ignorance on the causes of the malady which is now growing to such annoying proportions.

For it is not at all unlikely that before any cure can be found the nature of the malady will have to be discovered and thoroughly understood. What are commonly called cures today are no more than palliatives. Most of them will produce a future aggravation very much worse than that of the present. Indeed, it is a sad commentary upon our boasted intelligence that the press of our country, almost without exception, persists in treating the housing question as though it were a separate and detached symptom and quite unrelated to the general decline in production and the declared purpose of financial business to keep prices up by keeping the supply of necessities down.

Also, more people in New York City is an unthinkable condition to one who really knows the city as it is. B.

Book Reviews

The Foundations of Classic Architecture. By Herbert Langford Warren. Macmillan & Co., 1919.

This is a distinctly valuable contribution to the literature of classic architecture, a literature small in numbers and generally poor in quality. There are, to be sure, numerous restorations well presented and as a rule fairly accurate, and these are now supplemented by interesting photographs of the material that remains; but the actual literature of the subject is confined to bald, general and historical statements and to the monographs of the archaeologists. The works are either frankly popular or obstrusely archaeological. The latter are naturally the best, but they fail of conviction because the writers are not architects themselves and cannot put themselves in the position of the actual designer.

The present volume dose not fall exactly under either category. It contains a great deal of historical information which could be presupposed to be in the possession of the advanced student and it also contains a wealth of detail which is quite beyond the comprehension of the interest of a lay reader. It does not advance any new facts or any novel arguments, nor does it go very far into the why of things. In the many reviews of the book that have been published, the reviewers have generally, either through ignorance or in default of any other salient points, siezed on the statements that there are "two classes of form in all architecture,"—the primary which have been developed altogether in the material and in the mode of structure in which they appear, and the secondary or derived forms; and also that there are three main structural functions,—footing, support and crowning. There is nothing particularly novel about either of these statements.

The real value of the book lies in the fact that an unusual amount of information carefully collected from authoritative sources has been compiled in one volume, in a very logical and readable way. It is handsomely printed and the illustrations are generally good, particularly two drawings of the Parthenon by Harold B. Warren.

The book might have been better if the elementary information the writer deems necessary had been contained in foot notes or in a glossary, rather than embodied in the text and it would have been a distinct advantage and also a rather novel feature if a series of careful maps were inserted in their proper place. Even the advanced student is apt to be hazy on ancient geography.

In his discussion of the derivation of the Doric order, Mr. Warren is rather vague. He brushes aside the theory of a wood prototype for the Doric column with the statement that anyone can see it is distinctly a stone form and while he discredits the wood derivation of the entablature, he acknowledges that the triglyphs "may possibly, as a motive, have been remotely suggested by the appearance of the side of the Mycenean beam construction." He quite completely fails to appreciate that the theory of the wood origin does not imply an absolute reproduction in stone of a former wood structure. The theory merely is that the motive was supplied by the primitive construction, and that this applied quite as much to the column and to the rest of the entablature, as to the triglyphs. He clings to the idea that the primitive wood column in Greece was similar to the inverted Mycenean column, and that the wood columns of the Heraeum were of this type, without a thought of the ridiculous appearance presented by a temple so constructed; a many legged billiard table would be the only simile.

However, the book is a very valuable contribution and it is greatly to be regretted that Mr. Warren's death prevented the completion of the entire work of which this was to have been the first volume. E. S.

A Model Housing Law.—Revised Edition 1920. By Lawrence Veiller, Russell Sage Foundation, N. Y. City.

The Joke About Housing. By Charles Harris Whitaker. Marshall Jones Co., Boston, Mass.

Mr. Veiller and Mr. Whitaker are advocates of better housing—hence the two books. One might assume under such conditions that what they have to say about the matter would now and then coincide or at least run parallel in the course of their arguments; or, this failing, that there would be a collision of ideas. But nothing of the kind occurs; the two arguments from the outset run in opposite directions.

Before Mr. Veiller gets into his argument he indulges in this little dig at those whose point of view fails to coincide with his own: "How delightful it would be to be able to believe that all that is needed to bring about the proper housing conditions is a change in the economic status of the working people * * * Flying carpets, wishing caps, and magic philters have from time immemorial had indescribable charm for humanity." Further on, a modicum of value is assigned to the opinions of others, and Mr. Veiller acknowledges grudgingly that hoped-for results may possibly be sought in other ways. Still further on, however, these other ways are dismissed as of no consequence and it is stated that "the housing problem is therefore essentially a problem of preventing people from maintaining conditions which are a menace to their neighbors or to the community." So, it appears, it is largely a matter of framing legislation against privy vaults, lack of water supply, dark rooms, filthy and foul alleys, damp cellars, basement living rooms, conditions of filth, cramped and crowded quarters, lack of privacy, inadequate fire protection and the too intensive use of land, and so on.

Mr. Veiller places housing in the same category with food and clothing and says: "The method to be employed in securing the right kind differs in no essential respect from the methods to be followed in providing the right kind of food and clothing for that community," and he bets, for example, on securing pure milk for babies by legislation aimed at preventing the distribution of impure milk. Apparently Mr. Veiller does not appreciate that what is considered an ideal condition of trade is expressed by the phrase "too much milk to sell but not enough to drink," and that this condition is not at all likely to be removed by restrictive legislation.

Staking everything upon restrictive legislation, it follows that other methods of approaching the problem

must be deprecated at least by implication. So they are; and the matter is summed up thus: "We must get rid of our slums before we establish Garden cities; we must stop people living in slums before we concern ourselves with changes in methods of taxation. We must make it impossible for builders to build dark rooms in new houses before we urge the Government to subsidize building; we must abolish privy vaults before we build model tenements. When these things have been done there is no question that effort can be profitably expended in the other directions mentioned."

Following the introductory notes, one finds the whole subject of restrictive legislation treated exhaustively and minutely under various familiar heads. It is not to be denied that the subject of Restrictive Legislation is clearly presented—from the author's point of view. How to attack the problem, what to do next, is all definitely set forth, argued and explained.

The volume, particularly the introductory notes, expresses quite accurately what is generally understood in America as Housing Reform. Perhaps the most illuminating statement in the entire volume, expressing as it does what may be said to animate this sort of Housing Reform, is that made with respect to the economic status of the worker. This factor is dismissed quite as if it had no bearing upon the question. Almost as astonishing is the idea advanced that economic and industrial action aimed at improving conditions *must wait* upon the time when we shall have succeeded in removing privy vaults, and such, by restrictive legislation!

The writer has no intention to speak lightly regarding the need for rigid restrictive legislation—under present conditions. With financial business exercising complete control over the use of our land and our resources and the production of useful things, restrictions of the sort suggested are no doubt necessary. Whether or not the same need for restrictive legislation would eventually fall away under a system of production which was animated by the idea of producing for use rather than for profit, or with a view of exchanging goods and services in equity, is a question which need not here detain us. And so we come to what Mr. Whitaker has to say about the question in "The Joke About Housing."

Unlike Mr. Veiller's argument, and unlike most of the talk about it, Mr. Whitaker's argument runs to affirm that a change in the economic status of the worker would be equivalent to much more than what Mr. Veiller dubs "the wave of a necromancer's wand." It also runs to affirm that no gain is likely to accrue, within this field of interest, from the application of the palliatives which have come to be reckoned as measures of reform, so long as our present system of financial business stands firm upon its present base.

The greater part of Mr. Whitaker's statement is given over to an inquiry into what has caused the present conditions of mal-adjustment in which congestion of population and the existing conditions of housing stand as a physical evidence. In view of the nature of what has been written about this subject, this emphasis upon inquiry into the reasons why is no less than a radical departure; for the bulk of housing literature has had to do with what has been done about it. One cannot read Mr. Whitaker's remarkably interesting and well written statement without coming to the conclusion (at least this is my hope) that Housing Reform has thus far failed to acquaint itself with the nature of that problem which it set out to solve.

Those who want to "do it tomorrow" are offered no absolutely certain formula; the solution of the problem is presented as a matter which involves no less than a thoroughgoing change in our financial business system. Hence it is safe to assume that for some time to come the book will be looked upon as a stranger in the household of Housing Reform. For within the household it is not rated as good policy to speak plainly about unearned increment in land, or of our system of financial business, or of vested interests. These matters are not to be discussed except in whispers. But Mr. Whitaker makes it plain, notwithstanding all that has been said to the contrary, that there is not much likelihood of our securing any gains until these particular matters have been dealt with.

Some will no doubt assert that he lays too much stress upon the idea that the solution hangs upon the disallowance of speculation in land (and I take it he would include under this head natural resources.) Possibly this single subject is over stressed. But relative emphasis is a matter of little importance. What is of importance is that the subject of Land and Profit and Speculative Adventuring has been intimately connected with Housing in the sense of cause and effect. The importance of this change of base, so to speak, in approaching the problem can not be overrated, for if Mr. Whitaker has correctly stated the nature of the problem, it follows as a consequence that the solution is not at all likely to be found in any of the heretofore proposed remedies.

And again his argument may be criticised on the ground that he offers no so-called "constructive program." True enough. But the reason for this omission is contained in the nature of the argument itself. For, suggestions to be rated as "constructive" must run in accordance with our habits of thought and the entire body of law and custom which have stood firm during the recent past; proposals must not run in terms of Change. Thus it follows that any argument which acknowledges that we have come to a point where a break with the past is likely to occur and which aims at formulating action in terms of Change, is not likely to be looked upon either with favor or as a solution, although it may point the only possible way of escape with a minimum of suffering.

This bears upon the two arguments in this respect. While housing reform may be content to wait upon restrictive legislative action and what not to relieve congestion and clear away the slum, that is no valid reason for assuming that economic industrial action will wait that long—particularly since we are beginning to lose faith in reform which alters things not at all.

And why we are losing faith in reform is disclosed when Mr. Whitaker explains the title of his book:

"THE MORE HOUSES WE BUILT in the United States,
the more houses cost to build,—so
the poorer grew the quality,—so
the smaller grew the size,—so
the smaller grew the rooms.

"THEN CAME FLATS AND APARTMENTS.
The more we built, the poorer they grew,
the fewer grew the rooms,
the smaller grew their size.

"AND ALL THE TIME, rents grew higher
and higher and higher.
And the process still goes on
as far as rents are concerned,
and will still go on, unless—

"IS IT A JOKE? Or do you still think that
we must continue to live in houses?"

All of which is true enough as everyone knows who has been faced with the problem of designing houses of the class under discussion. For the architect's function is not at all that of using his brains to design adequate habitation; his function is that of designing a structure which will adequately function as a source of profit to the owner. To fail in this respect under present conditions is to fail utterly.

And it happens that we have now reached that point in our evolution, or our progress, or whatever it may be called, where the discrepancy is so great as between what the average man can pay and the economic rent which must be charged in new structures, that the game of building habitations is completely blocked. In the face of such evidence, it appears as no less than a gratuitous activity to discuss this subject in our time-worn terms and phrases. They have no bearing whatsoever upon the problem before us. It is precisely why Mr. Whitaker abandons these time-worn terms and phrases in his study which makes his book a very notable contribution to the subject at this moment.

Not only this—but it is also a notable contribution in that Mr. Whitaker has been able to present the argument as an economist in the language of one who has a good story to tell and who knows perfectly well how to tell it. In view of what he has to say—the title is a fairly accurate way of suggesting what is in the book.

F. L. A.

The Natural Style in Landscape Gardening. Outdoor Theaters; The design, construction and use of open air auditoriums.

By Frank A. Waugh. Boston, 1919. Richard A. Badger.

The first of these books might more fitly be called "An Introduction to the Study of the Natural Style in Landscape Gardening," for its interest is chiefly in its insistence upon the spirit in which the work of the landscape gardener must be undertaken, rather than in any analysis of the principles, or exposition of the technique of this particular art. At great length, Mr. Waugh emphasizes the fact that the landscape gardener must love the landscape, and seek to understand its special beauty, and even goes so far as to offer exercises by which this deeper understanding may be arrived at. This is the principal value of the small volume, for none of the suggestions given in the first half have any bearing other than upon the need of the gardener for an emotional understanding of the spiritual values of the landscape.

In all this, there is no suggestion that the real task of the landscape gardener or architect is far greater than that of merely loving and understanding the landscape—that of creating works of art, using the most wonderful of all mediums, the surface of the earth. To do this, unless the landscape gardener contents himself with being an amateur and no artist, he must master the technique and understand the principles of the art that, inspired by love, he may bring them to serve the purpose in hand, that of creating in the spirit of the landscape compositions in the natural style, which shall clarify and interpret the beauty and usefulness latent in any given area. This is no slight task, but one of the greatest entrusted to man, and for it, no superficial education will suffice.

Had the verse of Psalms been correctly quoted, it might have brought light to this subject:

I will look up to the Hills!
Whence cometh my help?
My help cometh from the Lord,
Who made Heaven and Earth.

The latter part of the book deals only in the briefest possible manner with minor technicalities of this art, and insists not at all upon the essential sudy of design. For what end does Mr. Waugh discuss the division not the ground, the method of grouping, the use of color and texture, the employment of furnishings? As well might a musician advocate the use of arpeggios, of chords, of crescendoes, or trills as ends in themselves, as a landscape gardener discuss the methods of planting, of grading, of cutting or grouping, unless each of these devices is studied in its relation to the whole design. Mr. Waugh makes no mention of the principles of design as applied to landscape gardening. He speaks as if the grouping of trees in clumps of two, three or more, were in itself the aim of the landscape gardener; whereas, unless the aim be the cultivation of specimens, treatment of trees, as of meadows, of brooks, of open or wooded slopes, it is of no value unless it be used for the conscious purpose of constructing a design, of building a landscape which shall be a work of art. Landscape painters have shown us this truth. They have loved and understood the spiritual significance of the landscape; they have mastered the technique of their art; but more, they have studied and probed the mysteries of design until they have produced works of art which reveal the spirit and the beauty of the landscape often hidden from us by nature herself. This with a far more interesting and complicated medium is the aim of the landscape gardener working in the natural style; or else, why not leave nature alone and merely teach men to love her? Thus the chief value of Mr. Waugh's book is in its use as an introduction to the study of landscape gardening for even with its valuable suggestions, it hardly more than makes a respectful bow to the art itself.

His book on "Outdoor Theaters" is a very interesting survey of some of the outdoor theaters which have already been built in this country, with suggestions for further purposes and uses to which these might be put. It also points out that many more, with advantage, could be built, but in spite of its subtitle, makes no extensive study of the designs or constructions of these open air auditoriums.

M. C. H.

Correspondence.

To the Editor of the Journal:

There are a number of details involved in planning any large building which seem to be, and are, outside the experience of the architect, and call for the advice and guidance of those who will have to use the structure for the elaborate and complicated services of modern civilization. Sometimes, however, those who have been trained to accomplish results by main force, in a routine way, in spite of unsatisfactory equipment, never arrive at the idea that certain difficulties could be greatly simplified and labor lightened by forethought in planning improved conditions, and so, not having thought it out for themselves, they fail to give the architect a clue by following which he could correct the difficulty.

One of these obstructions to the smooth running of many institutions lies in a complication which concerns the night service. Hotels, hospitals, and many other organizations have a regular night staff. In hospitals, in particular, this night service is taken by the nurses in rotation, and they always arrive at the end of their period of night duty, usually lasting a month, exhausted and half sick. They will tell you that it is abnormal to sit up all night and that work done under those conditions has a peculiar effect on the nervous system, from which it takes them some time to recover. This state of nervous fatigue, by making them irritable and impatient, reacts in turn on their patients.

They will also tell you, as a separate proposition, that they cannot get anything like a normal amount of sleep in the daytime because their bedroom is so noisy. I doubt whether this is a separate proposition, whether it is not really the source of nine-tenths of the trouble. The nurses, however, have to stand it whether or no, but in other organizations the night clerk or night watchman is a constant element of anxiety. If he has to try to sleep with the rush of daytime activities clattering in his ears, he is bound to give unsatisfactory night service. If he goes home to sleep, he is in still worse case; no workingman's home or room is quiet in the daytime.

Now, once this question is stated it becomes a simple matter to plan a solution. There should be a specially constructed room or rooms, according to the number of persons employed at night. They should be preferably at the top of the house, so that no one could walk about overhead; but there should be a good air-space above them, and the rooms should be ventilated with an air-shaft from the cellar lest they become too warm. The walls should be carefully deadened and there should be double windows. The air-shaft, too, should be deadened, lest it convey noises from the busier part of the house. There should be an electric fan for really sultry weather. Then, the person accepting night duty should be required to spend a minimum of eight hours in that room, beginning always at the same hour.

Under these conditions I think that the nervous breakdown of the night force would soon cease to be one of the problems of administration, but the best employer is helpless in the matter as long as the architect has not provided him with a quiet, well-ventilated room with which to meet the situation.

A. C. Austin.

François Michel Tonetti.

In the death of François Michel Tonetti, sculptor, the artistic world has lost a personality of amazing charm and picturesqueness.

Temperamental, brilliant and impulsive by nature, fearless and sometimes blunt in his emphasis of the right as he saw it, childlike in his capacity for enthusiasm, saturated with a spirit of devotion and sincerity for his art, often misunderstood and misjudged, but always firmly determined to overcome every difficulty lying in his path, he always stood with dogged tenacity against every adversity, continually serving others while he sacrificed and diasppointed himself. He was frank, simple and many-sided; sensitive to criticism, he strove always to give something in the form of artistic expression that would add to the joy and beauty of the world.

He was an extraordinary character. The contemplation of the life of such an individual defies narrow characterization. One cannot help feeling a suspension of the critical faculty. In striking an average, petty faults are swallowed up in the preponderant wealth of real achievement and worthy service to humanity's cause.

It is unnecessary here to touch on the extent or success of Tonetti's work in the field of sculpture; that is well known and will live and help because of its true value. His influence in the world of professional education will be cherished and guarded by his students and the younger men of the craft, who in turn will pass the torch of knowledge on to others still to come. But achievement and effort and influence are only the mediums by which and through which a personality greater than the mediums is proclaimed. Tonetti was vitally and intensely human and quite apart from the accomplishments of his artistic career he did many spontaneous and lovable things that deserve remembering.

Late in 1914 Tonetti's eyes were set steadily on his beloved France. His whole being revolted and he was stunned by the cruel blow of Germany through Belgium to his native land. In this grief he lost all interest in his work here, and he was determined to go back at all cost and to fight like a man for his country. He was well over age and in poor condition physically, but he tried his utmost to get into active service at the front.

I remember a little incident in connection with his departure that was typical of his general attitude. Fritz Kreisler had just been wounded and there had been expressed some feeling of regret that an artist of such unusual attainments should be exposed to the unavoidable dangers of war. It was argued that a priceless work of art was a national asset and as such it should be carefully guarded, and in like manner a country should protect and conserve its most distinguished artists. Tonetti's impatient comment was that individuals did not count; that if one would contribute things of worth the more quickly should he rush to the defence of the country that made him. I remember he said: "What could be more glorious than to serve in an army made up of Michael Angelos, Leonardo da Vincis, Jean Gougeons, Shakespeares and Christopher Wrens?" And in that spirit he left to take his part in the great war; not for any big thing but for any service he could render.

He was willing to take any chance or risk. But not being accepted for active service because of his age and physical

unfitness, his striving finally landed him at Dr. Alexis Carrell's hospital in Compeigne. He had known Dr. Carrel here and he sought him out there. His knowledge of draughtsmanship and the practical use of plaster made him most helpful in cases of serious fracture that required plaster settings. The irritation that comes from wearing ordinary plaster casts was diminished by his expert hands. Being versed in the subtle art of armatures and delicate structural supports, he devised and made balances and ingenious contrivances for the carrying and supporting of badly fractured limbs during the process of mending and healing.

He worked without ceasing. He had a cheery word for everybody, and patients and nurses adored him. Once a poor fellow was brought in all shot to pieces and a transfusion of blood was necessary. There was difficulty in getting volunteers. Tonetti, in his interest, was anxious to give his blood, but his heart being in bad condition this was not allowed. He was so anxious to help that he offered all the money he had if they would only use him.

And so, without further details, this sculptor, who dearly loved humanity, and wanted to serve it in any capacity, did a modest though important work that will long be remembered and appreciated. Tonetti, above all, had a soul. It is hard to realize that he will never burst in on us again with his cheery smile, his cordial grasp of the hand and his enthusiastic words. In his passing many have lost a valued, true and helpful friend.

—Donn Barber in the New York Evening Post.

News Notes.

QUESTIONING the right of the Institute to bind its members to follow the awards of the National Board of Jurisdictional Disputes, the Southern California Chapter, at a special meeting called for the purpose, unanimously adopted the following:

BE IT RESOLVED, That the Southern California Chapter of the American Institute of Architects, commends the desire of the officers and directors of the American Institute of Architects to bring about amicable solutions of questions that arise in the building trades, and welcomes any recommendations of procedure made by them which do not encroach on the rights of any Chapter member; but it questions the expediency of the adoption in Convention or otherwise, of recommendations treating with such a complex and important subject as that of jurisdictional awards, without first having referred the matter to the Chapters for discussion and vote, and without thus giving Chapters the opportunity to be represented in Convention by informed and instructed delegates.

THEREFORE, it is with the greatest regret that the Southern California Chapter of the American Institute of Architects cannot endorse or become a party to the action of the American Institute of Architects in this matter of the "Board of Jurisdictional Awards," and every member of the Chapter whose name is signatory hereto hereby witnesses that he must, and does, refuse to accept, as binding upon him, any authority, action, or decision of the "Board of Jurisdictional Awards," or any authority, action, or decision arising therefrom.

AT THE monthly meeting of the Pittsburgh Architectural Club in July, the drawings submitted in the competition for a treatment of the Arsenal Park Playground were exhibited for the comment of the club. This competition was conducted in cooperation with the Citizens' Committee on City Plan and is the first of what we hope will be a continuous series which will promote the development of the city on more pleasing lines than heretofore.

Seven drawings were submitted, the award placing Mr. William H. King, Jr., in the first place for honors, and Mr. William H. Harold, second. Both of these drawings showed intelligent perception of the problem and merit accomplishment. The chief error in all the designs seemed to be a failure to entirely grasp the essentially safe character of a playground, either as to the necessity of preventing vehicle traffic from trespassing on the property, or the segregation of the sexes in the senior playgrounds, where active supervision was not practicable. In some drawings criticism was directed at the failure to make the most logical use of terrain in the solution of elements such as the grandstands, and in other cases, an over-elaboration of "architecture" in treatments was noted.

On the whole however the problem showed the principal defect of the program, which presented an amount of labor difficult for the average architect or draughtsman to give to it, without neglecting his professional obligations.

Future competitions should be conducted as esquisses pure and simple, where the idea is sufficiently developed without the necessity of undue detail study.—*From The Charette.*

Orbituary.

Jean Louis Pascal.

With the death of Jean Louis Pascal, the notice of which was recorded in the JOURNAL for July, the profession of architecture in France has lost one of its most eminent representants. Up to the very end of his life, Pascal worked with the same enthusiasm, the same clarity of spirit, and the same devotion to all those works of public interest to which he consecrated the greater part of a life already well filled.

To retrace such a career is a task that would demand long study. We may here only indicate the great lines. After his brilliant studies at the Ecole des Beaux Arts and his sojourn at Rome as winner of the Grand Prix, he succeeded his masters, Gilbert and Guestel, as chief of the atelier where he was to teach, for almost fifty years, generations of architects, who are now scattered throughout the world.

Those who were taught by him will remember the lofty spirit in which he gave of his knowledge. Never was he concerned with the mere search for success, but he insisted, on the contrary, upon that artistic probity which grows out of honest expression and constant care for the conditions of execution of the work, at the price of which the work becomes something more than an image prepared for the consideration of a jury. His old pupils always considered him as the best guide they could possibly consult, and as a friend who was interested in everything that touched them.

His professional career leaves numerous very beautiful works which manifest that artistic probity of which we have spoken.

P. P. C.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:

BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

Crushed Slag Aggregate for Concrete.—The U. S. Bureau of Standards has made tests to determine the value of furnace and foundry slag for use as fine and coarse aggregate in concrete. For purposes of comparison, concrete of local sand and gravel and of the same cement was made at the same time and mix as the slag concrete and of the same consistency judged by the eye. As a result of these tests the following conclusions are published:

1. According to the tests reported, crushed slag as a coarse aggregate produced concrete of as high or higher strength as gravel.

2. The tests are not extensive enough to determine the durability of slag, but to the extent of these tests there were no signs of disintegration due to sulphide sulphur or other causes.

Note. The concretes were tested at periods of 7 days, 28 days and six months. The sulphide sulphur content varied from 0.04% to 1.34%.

3. Slagsand, because of its fine materials, does not produce easily workable concrete when used as a fine aggregate. If it must be used, its working qualities can probably be improved by the addition of small amounts of fine sea sand, hydrated lime or other fine material.

4. Provisions in specifications for slag aggregates calling for a maximum sulphide sulphur content of 1.5% and a minimum weight per cubic foot of 70 pounds are tentatively recommended.

Storage of Cement.—The Structural Materials Research Laboratory, Lewis Institute, Chicago, has published a bulletin (No. 6) on the "Effect of Storage of Cement" by Prof. Duff A. Abrams. The purpose of the tests was to determine the effect of different conditions and periods of storage on the concrete and mortar-making qualities of Portland cement and to study the effect of certain methods of protecting cement in storage.

Tests were made on three different lots of cement. The cements used were mixtures of four different brands purchased from warehouse stocks. The cements were stored in the laboratory, in the basement of the building and in a shed in the yard. Cement that had been in storage for periods up to two years was tested. Tests are still under way and hence the bulletin should be considered as a progress report.

Among the principal conclusions from this investigation are the following:—

Compression tests of concrete and mortar showed a deterioration in strength with storage of cement for all samples, for all conditions and periods of storage and at all test ages. The deterioration was greatest for the samples stored in the shed in yard, and least for the samples stored in the laboratory. The basement storage was nearly as severe as outdoors. The deterioration was greater during the first 3 months than for later 3 month periods. A greater deterioration was found in the tests made at the age of 7 days than at 28 days and later test ages.

After 3-month storage in shed in yard the cement had 80 per cent of its original strength; after 6-month storage, 71 per cent; after 1 year, 61 per cent; after 2 years, 40 per cent. The deterioration was probably greater in these tests than would be found in a larger lot of cement stored under similar conditions.

The effect of storage of cement on the concrete or mortar strength is largely a question of the age at which concrete or mortar is tested. The average concrete strength of cement stored in shed in yard when tested at 7 days (for all periods of storage) is 64 per cent of the strength when received from the warehouse; at 28 days, 71 per cent; at 6 months, 78 per cent; at 1 year, 82 per cent, and at 2 years, 85 per cent. A somewhat similar relation is found for other storage conditions. It is a matter of the utmost importance to note that the strength of concrete is not permanently reduced to the low values found in the 7 and 28 day tests.

For periods up to 1½ years there was no marked difference in the quality of cement stored in cloth and in paper sacks. The two brands of paper sacks gave almost identical results.

Only a slight advantage was found from the protection of cement in cloth sacks which were covered by thin layers of Portland cement or hydrated lime. The results obtained do not justify the cost of this method of protecting cement stored in sacks.

The most favorable storage condition (in laboratory) and the least favorable (in basement and shed) gave strengths of the same order of magnitude; indicating that the possibilities of improving the storage condition of cement in sacks in this climate is rather limited. The storage period and the age of the concrete or mortar at test are of greater importance than the exact condition of storage, so long as the cement is protected from direct contact with moisture.

Storage of cement prolongs the time of initial and final setting.

The normal consistency was only slightly affected by storage.

The deterioration of cement in storage appears to be due to absorption of atmospheric moisture, causing a partial hydration, which exhibits itself in reducing the early strength of the concrete and prolonging the time of setting.

This series of tests did not include bulk storage of cement, however. There is reason to believe that cement may be stored in bulk for long periods without materially affecting its concrete and mortar-making qualities.

Dry Rot.—The Forest Products Laboratory in Technical Notes No. 105 publish the following data in regard to dry rot:

The term "dry rot," the Forest Products Laboratory finds, is applied by many persons to any decay which is found in wood in a comparatively dry situation. Thus loosely used the term actually includes all decay in wood, since wood kept sufficiently wet cannot decay.

In the more limited sense in which pathologists use the term, 'dry rot' applies only to the work of a certain house fungus called Merulius lachrymans. This fungus gains its distinction from the fact that it is frequently found growing in timbers without any apparent moisture supply; in reality it does not grow without moisture and is as powerless as any other fungus to infect thor-

oughly dry wood. Given moist wood in which to germinate, it is able to make its way a surprisingly long distance in dry timbers, drawing the water it needs from the moist air, through a conduit system of slender, minutely-porous strands.

Wood in the typical advanced stage of dry rot is shrunken, yellow to brown in color, and filled with radial and longitudinal shrinkage cracks, roughly forming cubes. In many instances these cracks are filled with a white felty mass, the interwoven strands of the fungus. The decayed wood is so brittle and friable that it can easily be crushed into powder.

The dry rot fungus is active in nearly every region of this country, in Canada and in Europe. It is very destructive to factory and house timbers and to logs in storage. Coniferous or soft woods are more commonly infected by it than hardwoods.

In connection with the above, the Forest Products Laboratory Technical Notes No. 91 and No. 100 are of interest.

Technical Notes No. 91 discusses the resistance to decay of various woods used in airplane construction. The conclusions are:

Southern cypress, California redwood and Port Orford cedar proved very resistant to decay. Douglas fir, white oak and black walnut stood fairly high in durability. Spruce, basswood, beech, birch and maple were classed as the less durable. The sap wood of all species was found to decay rapidly. The life of the wood was found to be increased by treatment with sodium fluoride or where color and odor were not objectionable and where the parts were not to be glued by coal-tar creosote.

Technical Notes No. 100 records the service records collected on railway ties and telegraph poles preserved with low boiling creosotes.

Light creosote oils properly injected into the wood will apparently prevent decay until the wood wears out or until it checks so badly that the untreated portions are exposed.

It is stated that unless some other factor than protection from decay is considered important, there is apparently no need to specify high boiling oils. The important point is that any coal tar creosote which is not extremely low boiling or extremely high boiling will satisfactorily prevent decay, and in the selection of an oil, factors such as price, penetrability, and convenience in handling should receive greater consideration than moderate differences in volatility.

Making Wood Fire Resistant With Paint.—"Fire retardant paints are the most practical means so far discovered by the Forest Products Laboratory by which small amounts of wood can economically be made fire resistant. The only other known methods of decreasing the inflammability of wood are to keep it wet, or to inject into it certain chemicals under pressure. These methods though more effective than painting, are usually either impracticable or too expensive to be considered.

"Ordinary calcimine or whitewash has proved in tests to be as fire resistant as any paint covering tried. It is cheap and convenient to use. Although it will not prevent the burning of wood exposed continuously to a high heat, a good coat of calcimine on wood will decrease the danger of a blaze spreading from burning cigarettes, sparks, matches, and similar small sources of fire. Calcimine is, of course, more effective for inside than outside use.

"For exterior use numerous patented fire retardant paints are available. An effective outdoor paint which has been developed at the Forest Products Laboratory consists of linseed oil, zinc borate, and chrome green. This paint has maintained its fire resistant properties through more than three years of exposure to the weather.—*Technical Notes No. 106, Forest Products Laboratory, Madison, Wis.*

Structural Slate.—The Structural Slate Company has published the first of a series of chapters on Structural Slate prepared by the Structural Service Bureau of Philadelphia, Pa.

This chapter describes the principal characteristics of slate, e. g., ribbons, compactness of structure, cleavage, toughness and non-expansion. A brief description is also given of the two gradings, clear and ribbon. The section on Surfaces and Finishes is of especial interest. Sawed edge, split-face, planed, sand-rubbed and honed finishes are each described and illustrated by excellent photographs. The recommended uses for each finish are given.

The publication is an example of serviceable technical literature. It contains much data of value to architects. A larger use of ribbon slate is advocated, and the statement is made that ribbons are in no way detrimental to the strength or wearing qualities of the slate. This statement should have been supported by specific data such as results of authentic tests.

Non-Staining Mortar for Pointing, Setting and Backing.—This standard size booklet by the Atlas Portland Cement Co. presents a clear and interesting discussion of the mortar joint. Particular attention is directed to the importance of hardness, density, quick setting and non-staining. Attention is also directed to the advantage that white cement possesses for producing clear tints with a minimum amount of coloring matter.

No laboratory tests or analyses are presented to substantiate the claim made that Atlas-White Portland Cement will not stain stone work subject to staining by ordinary cement. There is published, however, an exceptionally complete list of buildings in connection with which Atlas-White Portland Cement was used. This list of eighty-three buildings gives the name of the building, the location, the architect, the contractor and the kind of stone or masonry in connection with which Atlas-White Portland Cement was used for either pointing or setting. The booklet is profusely illustrated and these illustrations are well selected. They include the work of many well known architects in various sections of the country. The booklet contains also, suggested specifications for the use of Atlas-White Portland Cement for laying floor tile, setting and pointing wall tile, mortar for backing and setting stone, marble and other masonry, mortar for pointing stone, marble and other masonry and for colored mortar.

In connection with the specifications for tile work attention is directed to the requirement that floor tile, unless entirely glazed, and wall tile, unless glazed should be well saturated with water before being placed, in position. This requirement is at variance with the standard method of setting as published by the Associated Tile Manufacturers. These standard methods required all tile except full vitreous tile to be saturated with clear water. Enameled and glazed tile are coated with the enamel only on the exposed faces and the body of the tile is usually not vitreous. The Tile Association, therefore, recommend that these tiles be saturated with water before being set.

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Shadows and Straws

"THE PLACE OF ART in Art Criticism" is the title under which Mr. Clive Bell, an eminent English critic, chooses to say some very sober and truthful things about art in general and criticism in particular in a recent issue of the New Republic. As an example of his contention that great art is quite independent of great knowledge, in the sense of knowing exactly what kind of a man was Christ, and how he really looked, Mr. Bell uses the controversy over the Epstein statue of Christ, recently exhibited in London, as an example of the futility and even the stupidity of much of what is called art criticism. Says he:

The questions that eminent critics, writers and dignitaries of divers churches discussed in public, while colonels, socialists and cultivated theosophical ladies wrangled over them at home, were, "Has Mr. Epstein done justice to the character of Christ?" and, "What was his character?" Was Christ intelligent or was he something nobler, and what has Mr. Epstein to say about it? Was he disdainful or was he sympathetic? Was he like Mr. Bertrand Russell or more like Mr. Gladstone? And did Mr. Epstein see him with the eyes of one who knew what for ages Christ has meant to Europe, or with those of a Jew of the first century? Questions such as these—I will not swear to any particular one of them—were what the critics threw into the arena, and no one much blames the parsons and publicists for playing football with them. But the critics must have known that such questions are utterly irrelevant; that it matters not a straw whether this statue, considered as a work of art, represents Jesus Christ or John Smith.

This the critics knew; they knew that the appeal of a work of art is essentially permanent and universal, and they knew that hardly one word in their controversy could have meant anything to the most sensitive Chinaman alive, unless he happened to be familiar with the Christian tradition and Christian ethics. If there be no more in Mr. Epstein's figure than what the critics talked about, then, should the Christian religion ever become obsolete and half-forgotten, Mr. Epstein's figure will cease to exist.

The truth of these things is simplicity itself to minds which concern themselves not with reason but with comprehension, and which are quite content patiently to accept life as an experience and beauty as a gentle companion without whom the experience would hardly be tolerable. It is doubtful if the efforts of the shallow-brained, those who labor so noisily and so incessantly in their efforts to convince someone else that their own experience is the only true one and that art, therefore, must be learned by their book,—ever helped a single mortal to gain any true understanding of what is beautiful and what is not. Beauty is a personal manifestation. Experience is the only travail through which it can be born.

Concerning the oft-repeated proposals that criticism should be elevated to the position of a subject in teaching journalism, Mr. Bell has these things to say:

Every now and then we hear eloquent appeals to the appropriate authorities, praying them to add to their school of journalism a department of art criticism. I hope and believe the appropriate authorities will do no such thing. Should, however, their sense of economy be insufficient to restrain them from paying this last insult to art, they will still find me waiting for them with a practical suggestion. Any student proposing to educate himself as a critic should be compelled to devote the first years of his course to the criticism of non-representative art. Set down to criticize buildings, furniture, textiles and ceramics he will find himself obliged to explore the depths of his own æsthetic experience. To explain honestly and precisely why he prefers this chair to that requires, he will find, a far more intense effort of the intellect and imagination than any amount of fine writing about portraits and landscape. It will force him to take account of his purely æsthetic emotions and to discover what exactly provokes them. He will be driven into that world of minute differences and subtle reactions which is the world of art. And until he knows his way about that world he would do well to express no opinion on the merits of pictures and statues.

BUILDING GUILDS in England are passing through many interesting phases of development. Already there are Guild Committees in nearly fifty English towns and cities, and the pro-

posals of the Guilds have, in at least one case, been officially approved by the Ministry of Health. Many months were lost through the delay of that body to act upon the proposals, and there is perhaps some excuse for this if we stop to consider how revolutionary is the idea of working for no profit. But the Guilds have resolutely adhered to the basic idea of a non-profit enterprise. The official statement which they have issued says:

The Guild declares that it has a definite duty to the community and to its fellow-workers in other industries. This duty is best accomplished, not by abrogating the rights of self-government with what that properly involves, but by returning to the community all and any surplus over the cost of production. It is for this reason that it has steadily refused to build houses at a profit. In every case it has tendered on the basis of cost. Not commercial cost, which takes no account of wet time, or unemployment, or sickness, which is callously calculated merely upon the commodity valuation of labour at so much per hour plus the cost of raw materials, but upon the social cost of labour, which includes these factors and vicissitudes. Beyond that, labour has no claim; the Guild makes no claim. Even the plant is vested in trustees, who must see that it is used for public and not for selfish purposes,

Finally, the Guild declares that true craftsmanship must be revived. There is no reason, save only the profiteering greed of modern capitalism, why building guildsmen should not equal or surpass the triumphs of the mediæval period. But to attain this the National Building Guild must control, not only its mature, but its immature labour. All technical instruction and training must come under the Guild's jurisdiction.

That is our reason, amongst many, why dilution must at all costs be rejected. The Guild is the only possible answer to dilution; it is also the only alternative to the existing capitalist system. But it will fail unless with self-government and wage abolition, it also revives the spirit of craftsmanship, which can only come in good fellowship and mutual aid.

THE REFERENCE to dilution is by way of being the Guildsmen's answer to the Government's proposal to dilute the building trades with unskilled workers taken from other trades. This answer is and must be the natural one where a body of men concern themselves not merely with the question of wages but with the deeper and far more important one, in the long run, of the revival of craftsmanship and the liberation of the creative impulse. What Mr. Cram and Mr. Ackerman have to say on the subject of Guilds, in this issue, is well worth while. The significance of the movement does not lie in the results that may be obtained in the immediate future, but in the direction of the current of the minds of men. Few are satisfied with the present system of building construction. Few indeed are those who are willing honestly and fearlessly to seek a better one, but among those are surely to be counted the Guildsmen, although their own movement is already torn by contending points of view in regard to a plan of action. But the premise of their ideal is far beyond cavil. It is an ideal to which every man in his heart will subscribe.

HEARINGS held before the Joint Committee on the Library, in the Capitol at Washington, indicate renewed activity toward the accomplishment of further steps in the Washington plan. Senator Phelan of California has introduced a resolution in the Senate providing for a report upon the desirability for locating and developing a suitable botanic garden in Washington. Senator Moses has introduced a bill providing for the acquisition of certain lands contiguous to the present Botanic Garden, in order that the garden may be increased.

The question of where the Botanic Garden shall be located is of vital interest to the development of Washington. Senator Phelan sees that plainly. Senator Moses does not see it at all. One cannot say what Senator Moses sees, in this connection, except that the size of the present garden should be increased and its location remain unchanged. May Providence intervene! The present Botanic Garden stands as a very definite barrier to the realization of the Washington Plan. As Mr. Charles Moore, Chairman of the Commission of Fine Arts, pointed out in his statement at the hearing, Congress located the Grant statue in the Botanic Garden in accordance with the plans of 1901 for the development of the Mall. Subsequently, Congress authorized the erection of a statue to General Meade, and the Meade Memorial Commission located the statue in the Botanic Garden. The assumption, in making both locations, was that the Botanic Garden would ultimately be removed to a more suitable site and the present area freed in accordance with the plan recommended by the now memorable Park Commission of 1901.

THE WASHINGTON PLAN, so-called, is in reality a document combining the report of the Senate Committee on the District of Columbia, prepared by a subcommittee composed of Senators McMillan, Gallinger and Martin, and the report of the Park Commission prepared by Messrs. Burnham, McKim, St. Gaudens and Olmsted. It has operated as a guide to the wise development of Washington, and although it has in several instances been violated, it still stands as an unchallenged plan for making the national capital a city of unrivalled beauty. It is inconceivable, therefore, that the project for removing the Botanic Garden to Mount Hamilton, the location of which is shown elsewhere in this issue, will not command the support of a majority in Congress. From every point of view such a removal is wise. The present location is ill adapted to the purpose.

C. H. W.

Where Goes The City Planning Movement?

V. DRIFTING

By FREDERICK L. ACKERMAN

WHAT previously has been stated* is merely suggestive of the more important paths along which an inquiry into the theory of city planning profitably might be conducted. Only through a discovery of the forces which have worked for the mal-adjustments characteristic of the modern urban center is there any hope of discovering a plan of action which will result in other than talk about the hoped-for result. It is plain enough today that the movement has become lost in a very jungle of details and technical considerations of relatively little importance.

All that has been attempted in these articles is a rough appraisal of the Movement from the standpoint of a scientific approach to the problem at hand. Certain outstanding characteristics of the Movement have been noted, the most important of which are here briefly recalled. Hoped-for results are sought by a policy of following Normal Tendencies as regards the development of urban centers. Better methods of land subdivisions are to be brought about by fostering the general adoption of the Best Practices allowed by that system or enterprise which conceives land to have been created, in the beginning for speculative purposes only. Gains are to be effected from time to time by the enactment of legislation aimed at curbing Individual Rights or Property Rights at approximately that point where the exercise of such rights would no longer show a net gain to the individual exercising them.

After making due allowance for the contrary opinions of those who think and work somewhat remote from the center of the Movement, the present situation as regards aims may be thus stated: Hoped-for results are to be achieved through the enactments of legislative measures framed with the utmost regard for our established system of law and custom. By degrees it is hoped to gradually extend the area over which is exercised the authority expressed by the vague phrase Police Power, thus curtailing Individual Rights, and so gradually building up a body of Community Rights. Whether or not the drift of affairs in the recent past would disclose a gain or a loss in this respect would be an interesting subject for inquiry. That however, for the moment, is somewhat beside the point.

The Reliance on Authority

For the important matter to consider is that the Movement taken as a whole seeks to achieve its purpose through the exercise of Authority. At this point, an extended excursion might be taken into a consideration of what is being done by way of Education. True, that would have relatively little bearing upon the question since about all of the so-called educational effort carried on by those engaged in the Movement seeks to pave the way or prepare the ground for Legislative action and to insure favorable judicial decisions when the legislative enactments are contested by some individual who holds to the traditional notion of what constitutes his Inalienable Rights.

On the whole it would seem that the Movement is aware that neither self-regarding individuals nor selfish economic and social institutions are to be trusted with the task of organizing our material environment, or so to conduct themselves as to bring about the social and economic betterment of the whole. But if individuals and our economic and social institutes are not to be relied upon, what may we do? Can we obtain our hoped-for results through Control, Compulsion, Authority, the Power of the State? Apparently this is our answer, for the drift of thought during the recent past is largely in line of imposing Authority; of bringing the State into the case as the last resort. Is not the City Planning Movement headed toward furthering the development of what is understood by the term The Autocrat State, as the only obvious means whereby hoped-for-results as voiced by the spokesmen may be brought about?

If it should appear that the drift of the Movement is clearly in this direction, it becomes important that we make inquiry into the prospect of success under such conditions. It is therefore necessary to review briefly what has taken place in the past and at the same time make note of those more "advanced" opinions, as to what is assumed as a basis for the next move.

How Did Such Cities Happen?

An extended inquiry into this subject would first of all involve an inquiry into the theory of urban centers with a view of arriving at some definite opinion as to the nature of those forces which have operated since the beginning to bring people together into communities of one sort and another. To omit such an inquiry is to build without a foundation since it is important to know to what extent the modern urban center is due to instinctive traits of character, to what extent it is a natural social institution, and to what extent it is due to the working of predatory

*See previous articles in Journals for December 1919, January 1920, March 1920, August 1920.

forces or forces arising out of the working of such institutions as, *e. g.*, private property, loan credit, machine industry, price competition, the wage system. Only through understanding just how the modern urban center has come about, may we project other than a blind guess as to the possibilities of controlling or directing its future. But I shall leave all of this for those more competent and take my point of departure in a comparatively recent date.

It was during what is spoken of as the Industrial Revolution that a change was to be noted in the character of the community where and whenever this change in the system of production took effect. Industrial urban centers invariably developed a congested condition of living. This condition is to be noted as taking effect with increasing intensity throughout the "civilized" world. The sordid, chaotic accumulation of habitations which came to form a conspicuous part of urban centers, came in the course of time to be looked upon as a menace by a sufficient number to result in the enactment of "restrictive" measures aimed at prohibiting the erection of the worst type of habitation. Eventually people came to relate intense congestion of people in buildings with "shortage" and so the erection of "working class" dwellings was "stimulated" by the making of "state credit" available, the use of which was under the control of the State which now had come to exercise some jurisdiction over the "planning" of suburban areas. From this it was but a step to "slum clearance" schemes carried out by the Municipality and the granting of outright subsidies for housing, now the plan of the British Government, made necessary by the condition that houses are not to be erected on any other condition than an outright grant from the State. Carrying through these measures of "housing reform," there runs an ever stronger current of federal "control" over the planning of areas adjacent to existing cities and the day is at hand, *e. g.*, in England, when the "planning" of all areas likely to be developed will be made compulsory upon all local authorities.

The Illusion of State Credit

Carrying through the measures as applied, one notes that State Credit, the acceptance of which carries with it a certain degree of control over the planning of the area to be developed is almost exclusively used in expanding existing urban centers. Thus far the use of State Credit has followed with but slight variation the path which would have been followed in private land development. Thus far it is fair to state that, while the voiced aim of this effort has been the provision of a more adequate environment for the Common Man, as a matter of fact it has been at bottom an effort to sustain a system of production which was by degrees failing to do this very thing. The present system of production can not function without a congested labor market at its doors; hence any attempt to bring about a real distribution of population has met with the same refusal for assistance on the part of the Government as has been the case with the private lender. Credit provided by the State or the private lender to be rated as safe must be so placed as to be safe in the eyes of those holding the reins of economic power—that it to say it must be safe in terms of price. But in the face of this clearly-to-be-observed condition, the Movement continues to drift in the direction of laying upon the Government the task of extricating us from the muddle.

Concerning the future, if we attempt to state precisely how it is proposed to attain the hoped-for results, we are confronted with a confusion of statements similar to those in the field of programs for immediate action.

Honestly Looking Forward

Perhaps as clear a statement of what has been spoken of as "advanced" opinion is that set forth by Mr. Edward Ormiston in the *Journal of the Royal Economic Society*. After reviewing the recent drift of affairs within this field of interest and discussing how it is that the modern urban center has, through its excessive cost of Government and the sundry burdens of one sort and another which have been thrown upon the State in an attempt to correct the mal-adjustments which have developed so largely out of the physical design or structure of urban centers, Mr. Ormiston states:

> We thus seem to be driven to lift the subject of urban distribution right out of the sphere of the interplay of self-regarding actions into the province of social design and control." For the purpose of social design, the economic analysis, so far as it has gone, will be of considerable value; but it needs now to be made more quantitative in character and to be extended to all factors which concern the material welfare of the people. And it must cover not merely urban distribution in the narrow sense, but the location and organization of rural industries and settlements also. Moreover economic analysis alone is not enough. It should be coupled with a political and civic analysis, for the structure of towns and villages has close relations with their political and cultural life. The object of the whole inquiry should be the elucidation of guiding principles for the future; the indication of what, taking every factor into account, would be the most satisfactory type of towns and rural settlements.
>
> A town formula already proposed for which wide usefulness is claimed, though it has never been placed upon a strict scientific basis, is the set of principles associated with the Garden City movement. This contains the ideas of the limitation of size, population and density of close

contact between urban and rural industry, and of municipal ownership and control of land and public services as a means of enforcing design and securing permanence. The formula provides well for health, amenity, leisure and manufacturing efficiency, and for a rural organization much superior to the scattered village system; but a more detailed quantitative analysis is needed to ascertain what is the minimum population which will give a reasonable amount of localized interdependence of industry. Obviously elements of taste and judgment will enter into the determination of an exact formula for the ideal town. The balance of consideration will also be much affected by local conditions as, for example, the prevalent scale upon which industry is conducted. Thus you could not run many first-class shipyards in a town with the Letchworth population limit of 35,000 though the new method of "fabricating" ships if it is continued after the war, will permit of a considerable decentralization of this industry. But the idea of fixing a definite limit seems a primary necessity of social design and for this reason the Garden City formula is an excellent basis for further discussion and analysis.

It is very important that the practical bearing of the arguments here brought forward should be immediately realized. Limitation of large towns implies, and can perhaps best be brought about by, the provision of new towns for the surplus population; and if ever there were an opportunity for the initiation of such a departure on policy, it is now. Vast numbers of new houses have to be placed somewhere. Thousands of factories and workshops have to be built to meet the new conditions of industry. Where are all these to go? The State finds itself forced to answer this question, since its influence, by the accidents of events, is decisive. It is vital that sound principles should be agreed upon before such enormous quantities of energy and material flow irrevocably into the wrong channels. If, for example, we continue with the aid of State loans and grants, to build extensive new garden suburbs to cities like London, Birmingham, and Manchester we shall almost certainly increase the difficulties of adopting a good social design later on. It is fallacious to assume, as some town planning reformers do, that we can go on indefinitely adding garden suburbs to great towns, eturning at our leisure to open up the central areas. To dilute the heart of a city with gardens, open spaces and wide roads is to revolutionize its whole economic basis. To present only one aspect of this—men may find it worth while to travel two hours per day for the sake of operating their business in a center which is highly organized and concentrated, but they may not be willing to travel three hours per day to and from a center where the degree of concentration is much less. If we seriously intend to reduce the density of our cities, which is the only way to make them thoroughly healthy, we ought to have some idea of the suburb carrying capacity of the proposed type of city center, before proceeding to add further suburbs. And if the provision of a rural zone to every large industrial group is found, as in the Garden City formula, to be an important element of the ideal town structure, we ought to make provision for such zones in our development adjacent to great cities—building satellite towns with a considerable measure of industrial self dependence, rather than suburbs. And this would mean quite a different manner of planning, and the selection of situations some distance further from the center. Proper examination of the whole problem would show what is possible and what is not; what is in the line of an ordered design, and what would prove in the long run an obstruction thereto. At present we are not proceeding in absolute darkness. There is enough light to make it evident in which direction we ought to be traveling, though the precise point of destination is still in doubt. It is also very evident that we are not traveling in that direction and that unless prompt attention is paid to the helm we shall find that our progress does little but add to our difficulties.

But the real problem remains. How are we "to lift the subject of urban distribution right out of the sphere of the interplay of self-regarding actions into the province of social design and control?"

The Control of Selfishness

I do not state that Mr. Ormiston intended that we can only accomplish this by placing the power and authority for action in the hands of the State. But it appears from the drift of opinion and the tendency now to be observed, that this suggestion, interpreted in terms of action, means no less than that the State shall undertake this work. We are thus brought to the really fundamental problem, *e. g.*, how to control the self-regarding actions of individuals and interests.

Surely it is not clear how this is to be accomplished by handing the task over to a State in which, as has been clearly demonstrated in the action leading up to the Peace treaty, it appears that self-regarding action seems to be the axis around which the whole structure of the State revolves. To ask the State to carry out a policy contrary to our way of looking at things, contrary to the working of our social and economic institutions, contrary to the purposes of those at present in political and economic control is in the nature of expressing a wish. On the face of it, the suggestion is absurd. But saying that the suggestion is absurd does not help matters very much.

It would seem that a more reasonable way to approach this problem would be through an inquiry into the nature of what has been referred to as "self-regarding action." For it would appear that in so far as the users of property are concerned, the right of the individual to exercise himself in the field of self-regarding action was deemed to be the fundamental right which the State was created to uphold.

To set a curb upon self-regarding action so far as it relates to the use of property, is not therefore at present a practical plan of action to entrust to the State. Self-regarding action is a fairly accurate phrase if used as descriptive of our modern industrial system and the entire group of economic institutions which retards the production of goods. It is the modern industrial system which, through its work-

ings, has come to shape our point of view. Any act, any aim or purpose, which may be construed as running counter to this complex mechanism is sure to be rated as "dangerous." To insure its continued operation without change as to rewards accruing to both capital and labor is now deemed by those in control of its workings, to be the most important purpose of Government. But the value of this system is being questioned by an ever expanding group of workers and thinkers who see in the change of this system the hope of society. To these the modern industrial system controlled by a system of investment for profit, price competition and the wage system, stands as the institutionalization of the idea contained in the words "self-regarding action." This institution has repressed the creative impulse within the mass of men engaged in its process. It is not at all likely that men, actuated primarily by the instinct of workmanship or creative impulses would voluntarily build the sordid, ugly contraptions which go to make up the modern urban center; it is not likely that they would of their own volition create the ugly factory town; they might do all these things, but it is not at all likely that they would.

Who Will Set Us Free?

It would seem, upon further analysis, that the City Planning problem—the housing problem—the problem of creating an adequate material environment for the common man was not to be solved by laws and ordinances or by "stimulating appreciation" or by Plans and Reports. Nor is it to be solved through Control, Repression, Authority—the Power of State. If it is to be solved at all, it would seem that the solution was most likely to be found in "release"—that is to say, in freeing men from the dominance and control of industrial and economic institutions through the operation of which the creative impulses in the mass of men are repressed.

This brings us to the last step of our preliminary sketchy inquiry. Who is to bring about this release? Who is to set free the creative impulses? The answer to this question is plain enough. Those who wish to be free.

(To be concluded)

Unpopulating London

THE PROPOSED CONSTELLATION OF SATELLITES FOR THE GREAT METROPOLIS

By JOHN IRWIN BRIGHT

ONE OF the commonest of accepted beliefs is that a city is a "natural" growth and that its size can not be affected by reasoned effort. As a matter of fact, it is the ultimate expression of artificiality being natural only in the sense that too often it is the product of anarchically minded men. History teaches that the means to limit its size has always been found when occasion demanded it.

Mankind's gregarious instinct, added to the desire for safety and for the economic and social advantages obtainable in a community life, are the prime reasons for the creation of cities. But there is no doubt that, once established, their expansion owes much to the spirit of emulation inherent in the human breast. Plutarch expresses this feeling very well in the following sentence: "Whoever it was, Sosius, that wrote the poem in honor of Alcibiades upon his winning the chariot race at the Olympian games, Whether it was Euripides, as it is most commonly thought, or some other person, he tells us that to a man being happy it is in the first place requisite he should be born in 'some famous city.'"

In our times the restriction of size by defenses is no longer a factor, as walls and moats offer no appreciable resistance to modern arms. Improvements in transport and the invention of machinery have made possible the support of life in highly concentrated areas of people and has seemingly lifted the ban from all limitations of size. The transformation did not occur over night; the span of several generations was required for its full development but nevertheless, sufficient time has elapsed for contemporaneous observation to have lost all contact with the preceding radically different type. The ordinary citizen is chiefly impressed by what has immediately preceded him. Within the memory of his father's father cities have never been artificially restricted in size. Every effort has been made to increase them. Every base and noble impulse has worked that end. National and municipal pride, the deep-seated desire to be identified with something of great importance, to be "a citizen of no mean city," the claims of commerce, the lure of the spectacular, the urge for rapid accumulation of wealth (unattainable mirage to the multitude but possible to the few when presented with the opportunity to exploit large bodies of men), the chance to speculate in land values,—all these desires and stimuli work incessantly for physical expansion.

Speaking in terms of a nation's life this movement has hardly had time enough to get well under way and has by no means furnished conclusive evidence

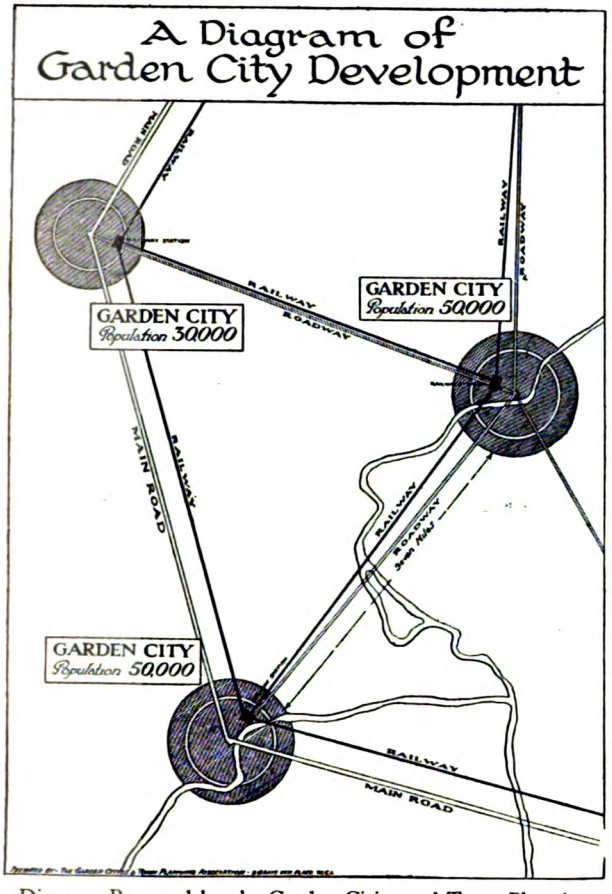


Diagram Prepared by the Garden Cities and Town Planning Association, London.

of its own permanency. But how curious it is to find public opinion quite convinced that the growth of cities is one of those natural forces which has always existed and which it is hopeless to attempt to control. Scarcely two per cent of recorded time has passed since the general use of machinery has brought about an all pervading, stupendous change in urban life and, with entire disregard of the teaching of history, we accept our present status as the unchangeable heritage of the past. Woodrow Wilson once said that it took at least two years to establish an old college tradition.

It is human to wish to advance; to retract or to interrupt a well established habit of thought is so distasteful that we are apt to deny the possibility of so doing. But there comes a time when the disadvantages of immensity far outweigh its benefits. The concentrated area can not be fed, housed, and provided with the necessities of life. It is this peak of the curve from which dates the present reaction. Unfortunately a mental environment is difficult to change and we have been moving so long in one direction that the return march to sanity will not be undertaken until there is imminent danger of a collapse of the social structure. But we are approaching that moment and there are signs that in some quarters the danger is appreciated.

The absurdity of this nineteenth century legend has been challenged by the recent founding of the city of Welwyn in England. It is very similar to Letchworth, its near neighbor, in that it is limited in population, "organized for modern industry of a size that makes possible a full measure of urban life surrounded by a permanent belt of rural land, the whole of the land being in municipal ownership." Distant twenty-one miles from the heart of London, it is the first of a surrounding group of similar cities designed not to supplement the metropolis but to substitute for it. The effort is being made on a grand scale to unpopulate London, not by restrictive legislation but by affording its inhabitants better, more wholesome, more hopeful places in which to live.

In this there is no clash with the theory that the size of a city at the intersection of trade routes reflects their importance. The future city can be conceived of as a constellation, its nucleus large enough to embrace all true metropolitan activities but only incidentally a place in which to live. Its increase after these wants have been provided for has no connection with economic laws and leads to waste and confusion. Scattered around it will be the smaller members of the constellation varying in population from twenty-five to fifty thousand. Each of these units will be connected with each other and with the center by a transportation net, regional rather than local in character. Owing to the manageable size of the units and their scientific planning, the use of street cars and other artificial means of locomotion, insofar as intra-mural communication is concerned, will be largely unnecessary. Danger of traffic and housing congestion will be eliminated, for the towns being restricted in size, provision can be made in advance and with certainty for any possible need. By the simple expedients of the surrounding belt of rural land and the control of the density of houses, there can be, in the future, no unlooked for or disastrous expansion.

Two thousand three hundred and eighty-three acres of farm land have been purchased for $532,000.00, an average of $223.00 per acre. To cover this outlay and also to provide a working capital for the development of public utilities; 250,000–7 per cent cumulative shares of 1£ each are being issued.

The London Daily Mail has leased in Welwyn for 999 years a fifty-acre plot with an option on another similar space for the erection of a model village. Its terms to prospective builders include a few simple regulations making speculation impossible either in leases or in houses. In every case a tenant wishing to

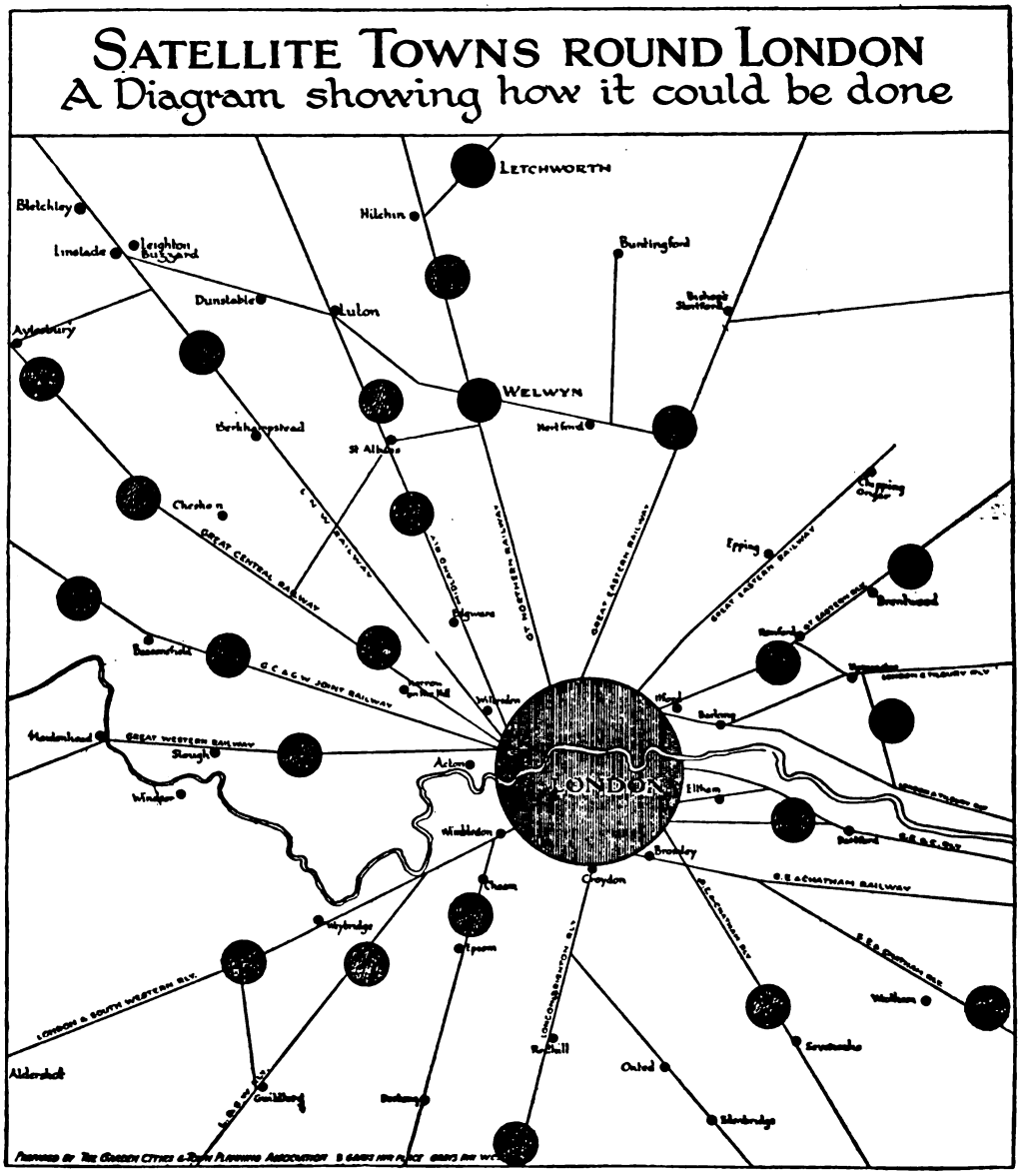
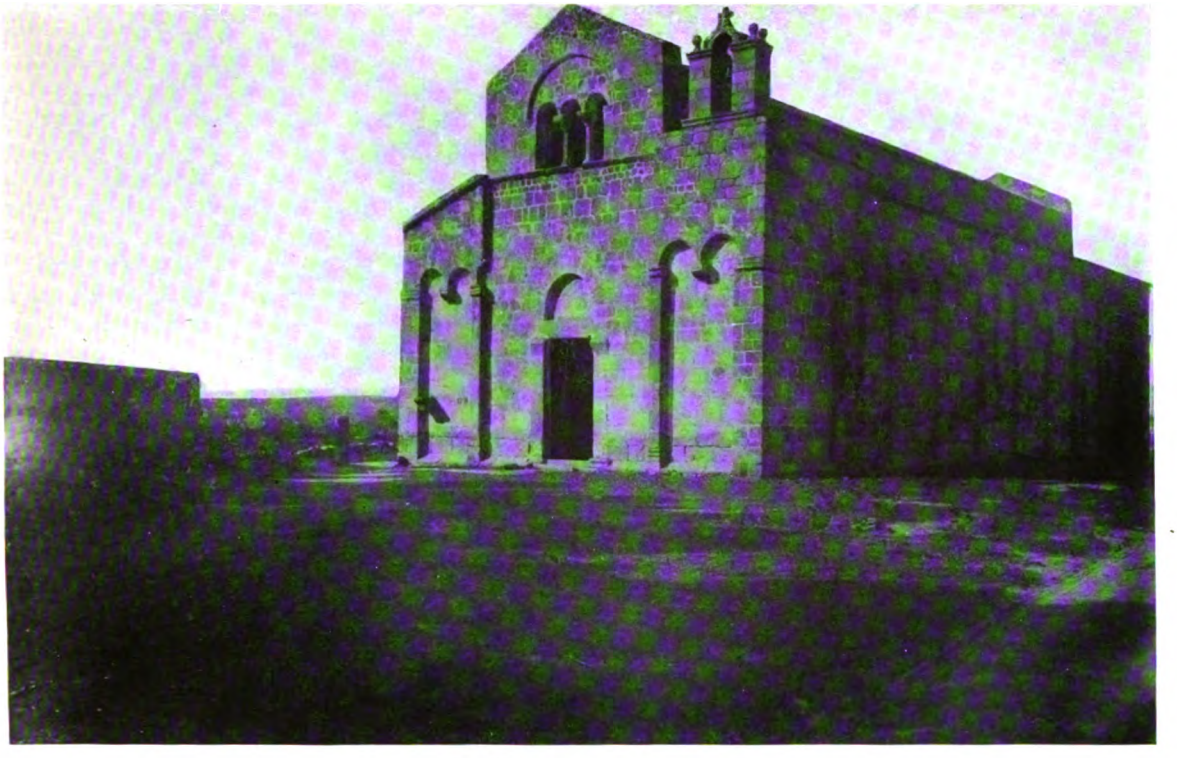


Diagram Prepared by the Garden Cities and Town Planning Association, London.

vacate must surrender his land lease (there is no absolute ownership in land), and must offer his house at its original price to the ground landlord, the City of Welwyn. This arrangement has worked successfully for some years in Letchworth and there is no reason to anticipate any but a fortunate outcome for Welwyn.

We have recently witnessed many well-meant efforts in this country to solve the "housing problem" on conventional lines. None of them has succeeded. The triumph of Letchworth, the faith of Welwyn are based on an intelligent idealism and a courage which defies the unknown.

We have long boasted that these traits of character are essentially American and unless we use them in our present emergency, our housing problem will remain for us a perennial affliction.



San Simplicio—Terranova

Some Romanesque Churches of Sardinia

By A. R. Giles

THE mediaeval churches of Sardinia are almost all basilical in plan with three aisles divided by columns or square pillars and the central nave ending in an apse. Some small churches have two aisles with a row of columns or pillars down the middle; some have no division. A few are in the form of the Latin cross but they are neither the largest nor the most important. The Sard churches are none of them very large, and while the exteriors are often richly decorated and real works of genius, the interiors are plain, bare in fact. There are no splendid mosaics, no inlay with rare marbles and while a certain amount of frescoing was done, very little of it remains, thanks to the Sard's love of whitewash, and the little still visible is rarely of artistic value. Sardinia was always too poor to spend ready money on costly materials brought from abroad or to pay painters of note while her kings and nobles owned abundance of fine building stone, or sturdy oak for the roofing and the open timber work over the central nave—the side aisles being usually vaulted—and while there were serfs to do the work under the direction of the masterbuilders called in from the continent. The walls of these churches were faced inside as well as out with blocks of cut stone fitted so closely with the wonderful skill of the Pisan masons that scarcely a seam shows. Sometimes the facade was brightened by the use of set-in bowls of richly colored and iridescent Hispano-Moresque porcelain. In the churches built after the archaic period, as the period from the first of the eleventh to the middle of the twelfth century may be called, the great variety of color in building stone was furnished by the Sard quarries of white limestone and yellow sandstone, of granite of different shades, and of trachite from black to tints of red and green and was used to enhance the effect of the design, sometimes by alternate bands of black and white, sometimes by columns and carvings in light on dark and sometimes in geometric designs executed in a bold mosaic with hard stones of different colors. Reentering rhomboids were often used, and carvings, fine or bold according to the grain of stone and the skill of the sculptor, but the architectural design is what gives these old churches their dignity and charm, and proves that their builders were, in truth, what one of the old documents called them, "the most skillful masterbuilders of Pisa," summoned to Sardinia by king or noble "to build for the honor of God and the salvation of their own souls and those of their wives," as the old

manuscripts always put it, never forgetting the wives! With adherence to the principles of the Romanesque, these old masterbuilders were no slavish copyists and many of their variants show true artistic genius and originality.

The art student I hope for, will land at Gulf Aranci and should stop at the first Sard town, Terranova Pausania, on the site of the important Roman city of Olbia, to study the Pisan church of San Simplicio, erected in the eleventh century in honor of the bishop of Olbia, of whose martyrdom under Diocletian tradition gives many curious details. Though not the oldest or finest of the archaic group, it is well worth a visit. Just a little out of the town, it stands alone on a rising ground—a fine dignified structure. The building is in good preservation, but much injured artistically by the removal of the cornices from the front and sides, the addition of a belfry, and especially by the elevation of the walls of the side aisles, thus throwing the central part out of proportion and losing the light, bold effect of the original design. Still, one has in San Simplicio an unadorned church of severe and noble lines.

The plan is basilical with apse and three aisles divided by two rows of supports, alternately square pillars and columns with capitals taken from the old Roman city. The central nave has open timber roofing and so originally had the side aisles, but when their walls were raised, the beams were replaced by a barrel vaulting of tiles. The Pisan cut stone facing shows through the whitewash. After the fifteenth century, the walls were frescoed, traces of which can be seen near the apse. The holy water basin is a marble Roman sepulchral urn. Many other classical fragments have been built into the walls. The church, as often with those dedicated to Sard saints, has been built on the site of a necropolis.

Diagonally across the island at the southwest corner, the student will find in the tiny village of Tratalias another fine old Pisan ex-cathedral with a curious history. The present town of San Antioco, on the island of the same name, is on the site of the important Punic and Roman city of Solci which was the cathedral city of the diocese of the Sulcis. In the twelfth century on account of the frequent incursions of the Saracens, the bishop took refuge on the mainland in Tratalias. Toward the end of that century, no return to San Antioco being safe, this noble church was built and dedicated to the Madonna. In the beginning of the fifteenth century, the bishop's residence was transferred to Iglesias and the statue of the Virgin went with him, but she has to make a yearly visit to her old home. Her feast day is the Monday after Ascension. The canons and chapter of Iglesias escort her for the first stage of the journey and the intervening villages in turn, afterwards. She arrives at Tratalias on the Thursday before Ascension and leaves the Tuesday after. Two things are characteristic of Sardinia: the wanderings of the statues of saints, and the lost churches in lonely plains.

Santa Maria of Tratalias was neglected; the roof fell in and it became a wandering place for sheep, but at last the Government declared it to be a national monument and restored the roof in the old manner and it is now the parish church.

When I visited Tratalias, long before we reached the church, we saw the great mass looming up above the burnt plain, seemingly utterly lost and alone, and only when we came close were the low hovels of the village visible. We were surprised at the excellent state of preservation of the building. Every detail was distinct and clear, of the carvings over the doors and of the cornice of the little hanging arches, a marked and almost universal feature of Roman-

Bono

Santa Maria Tratalias

SANTA MARIA OF BETHLEHEM—SASSARI

esque churches. The color of the trachite is a reddish brown below, weather worn to a yellowish brown above. The facade is defaced by an ugly, heavy, comparatively modern belfry and a massive parapet crossing the whole front, evidently to try to harmonize the belfry with the rest of the edifice. The door is framed in by two slender pilasters with carved capitals that divide the lower portion of the front into three parts with receding rhomboids in the two outer divisions, and above is a cornice of little hanging arches resting on corbels. The jambs of the door supporting the monolithic lintel have modelled bases and capitals with delicately carved foliage. The supporting arch level with the wall is raised in the center to give lightness, and is surrounded by a cornice with carved foliage that rests on corbels, also carved with foliage. The south door is similar, only smaller, and the corbels have heads, not foliage. The north door is unadorned Romanesque without capitals or cornice, but over it in weather worn relief are two lions advancing to fight, the frequently seen emblem of the church fighting heresy.

In the west front of the center nave is a wheel

window. The slender marble spokes of the wheel are broken away leaving only the little arches of their bases. This wheel is framed by a circular band with carved foliage like that over the door. On the gable is a stone stair beginning without connection and seemingly of no use, as much of a puzzle as similar fragmentary stairs inside on the walls of the facade and center nave. In each case, these stairs are intended, by the use of connecting ladders, to give easy and complete access to the roof and to the open timbering under it. The Romanesque architects considered this a most important matter and made no effort to conceal their methods.

The interior has little of interest. It is basilical and divided into three aisles by two rows, each of five massive square pillars of cut stone. One notable particular is that the side aisles have open timbering instead of the usual vaulting. The fine Pisan masonry shows through the worn whitewash. The mediaeval stone pulpit, that an old Spanish manuscript says was very curious and beautiful, has gone and a sixteenth century altar piece is partly spoiled by restoration. Stone brackets in the wall by the front door once supported a stone sarcophagus, which we found later in a courtyard opposite serving as a drinking trough for cattle. Noting the carved but ruinous arched entrance to that courtyard, we were sure it marked the remains of the episcopal palace.

Santa Maria of Tratalias served as model for more than a hundred years for churches erected in the diocese of the Sulcis and even beyond, but always without the parapet.

Orotelli in the mountain center of Sardinia was a cathedral town until the diocese was transferred to Ottana in the middle of the twelfth century and a noble church built there. The ex-cathedral of Orotelli is Pisan Romanesque and retains much of its original structure, though sadly injured by time and the work of ignorant village restorers. It is in the form of the Latin cross without side aisles, like the cathedral at Ottana, but smaller. The apse is in perfect condition though the façade is the ghost of its former self, having had originally, I am sure, two galleries, where now in the middle and upper front is seen only the little hanging arches. The half columns, or more probably slender pilasters, are gone, having been doubtless of marble and frail. In the lower front, some decoration of inlay or of rhomboids must have existed with probable pilasters framing in the door as at Tratalias. Mentally restore all these and you have a good Romanesque facade. The side walls, too, have lost the pilasters used to break the monotony of the long stretch, and the right hand wall was covered with pale rose colored stucco.

The principal interest in this church is to be found in the interior. The first feeling on entering, however, is disgust. The fine Pisan walls of the nave are hidden by a wooden covering with sham Greek pilasters and cornice all painted white and the beams of the admirable old timber roof are spotted with round dabs of whitewash. But the three superb Renaissance altars of finest wood carving—the high altar and those of the trancepts—make one forget the disfigured nave. The high altar was covered with the usual tawdry ornaments of village churches and the delicate carving, partly heavily gilt and partly in soft artistic shades of dull green and red, and was largely buried in a thick coat of coarse glaring green house paint, though it had also a good old carved wood statue of St. John the Baptist. The altar in the north trancept had a carved wood crucifix of the same date as the altar and the one in the south trancept had one of the few remaining beautiful old Spanish altar fronts having the effect of the old Cordovan leather hangings. They were made by coating heavily with fine stucco, linen canvas stretched over boards. The canvas was then worked

OROTELLI

San Pietro—Zuri

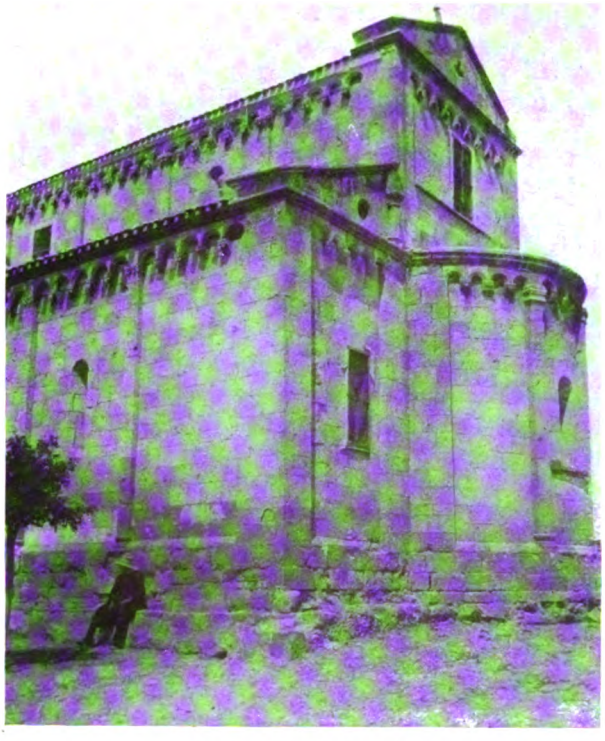
in low relief in artistic designs of foliage, flowers, fruits and arabesques, and painted in the best taste, usually in shades of green and red. The Orotelli front has also symbolic birds. Elsewhere I have seen parts of such altar fronts used as boards to make confessionals and church stepladders. The pulpit is a fine piece of wood carving and the vice-parroco said it was of the same date as the altars—namely, of the beginning of the seventeenth century—but it is difficult to arrive at any exact dates as to Sard church matters, for almost all church records are lacking. There is also a curious silver monstrance of the same date.

The great majority of Sard churches from the eleventh to the first part of the fourteenth were purely Tuscan Romanesque—though there were some erected during the Pisan domination that were free from the Tuscan influence—proving that the Lombard masterbuilders, and especially those from Como, who worked not only all over northern Italy but also in Tuscany and particularly in Lucca, came to Sardinia as well. One of the most interesting of this class is the church of St. Peter at Zuri. It must have belonged to a nunnery, for an inscription on the facade states that when it was consecrated in 1291, Donna Sardingna of Lacon was abbess, and that it was built by Master Anselmo of Como. The church is of the beautiful rich red trachite of the region which, when freshly quarried, is soft and easily worked, and stands out most picturesquely on a little rising ground overlooking the wide green valley of the Tirso, the largest river in Sardinia—a mere creek in summer but a raging torrent in winter and spring. Zuri may have been a place of some importance when this fine church was built, but it is now one of the smallest and most miserable villages in Sardinia.

The lower part of the facade of the church is filled by three arches, the center one framing the door. The sides of this arch are receding but like similar ones in Lombardy, not very deep and are formed by rows of slender columns and pilasters with capitals adorned with foliage, animals, and human heads. Each row has the base and low abacus in common. Two brackets support the lintel on which is carved childishly the most extraordinary row of saints with the Madonna—all round-faced and pop-eyed reminding one of a row of frogs—squabby and fat with hands resting on stomachs too placid for aches. One has a hand resting on a crouching figure, seemingly animal but with human head, possibly representing the Principle of Evil Subdued. The arches on each side repeat the first forms of the doorway. Above, except the cornice of little hanging arches, nothing remains of the ornamentation of the facade. Probably it was removed when out of repair from age. The side walls have a series of arches resting on slender pilasters with capitals carved in the Lombard fashion, and under the eaves is the same cornice as on the front which, like that of S. Ambrogio in Milan, is formed by little hanging semi-circular arches crossing each other so as to form still smaller acute-angled arches. The east angle of the south wall has carved on it like a capital a row of figures holding hands and dancing the Sard folk dance—the only sculpture of the kind in Sardinia. The arched windows with sloping sides are not the usual narrow slits.

The apse is semi-hexagonal, a rare form. It has three arches supported by clustered columns with carved capitals, and in the center one is a large, round, arched and recessed window, with eight columns, four on a side. Each of the other arches has a moulded circle enclosing an elegant openwork design made by interlacing tiny circles, each with an open center. This apse was no part of the original church but was built considerably later and by less skilled artisans. All the carvings here are dull and uncertain, while those on the rest of the church, though all the figures are squat and absurd, at least have life.

One looks at this church with peculiar interest, for if its past links it with the long since vanished petty kingdoms of Sardinia its future fate is linked with the march of modern science. Before the European war, the Italian Government had completed a plan and entrusted its execution to an engineering firm for the construction of a great dam across the lower course of the Tirso to hold the yearly floods and turn the whole wide plain into the largest artificial lake in Europe with a surface but little less than that of Lago Maggiore. That mass of water will furnish electric light and power to many towns, mines, mills and factories, and will irrigate vast areas now almost useless. Hardly anything could be done during the war, but now the work is being pushed. When the lake is formed, it will cover the site of Zuri village and church. It was said that the church,



SANTA MARIA—TRATALIAS

THE MADONNA OF VALVERDI—IGLESIAS

which is a "national monument," would be taken down carefully, stone by stone and rebuilt in its exact form of old on high ground, but now, who knows! It would cost a great deal, Italy's war debt is heavy and I fear much for the future of the beautiful old church.

The cathedral of S. Pietro, which an old inscription says was built in 1073, is about a mile from the present city of Bosa, up the river Temo on the left bank, on the site of the Roman city of Bosa Vetus. The side walls and apse are archaic Romanesque. Into the smooth facing are built many fragments of classic inscriptions and the pavement of the church is largely made of Roman slabs with inscriptions now almost defaced. Roman coins, tiles and other similar objects are frequently found around the church, and excavating nearby would undoubtedly be well rewarded. The antique facade was demolished and the present one constructed, probably in the fourteenth century, on the lines of the Romanesque of Northern Italy. The cornice of little interlacing hanging arches is like that of Zuri.

The church of S. Maria of Bethlehem in Sassari is another church free from the Tuscan influence. Unfortunately, little remains of the old facade. The portal is very fine, however, Romanesque of northern Italy. It probably dates from a period when Sassari was under the influence of Genoa and was the work of Ligurian builders.

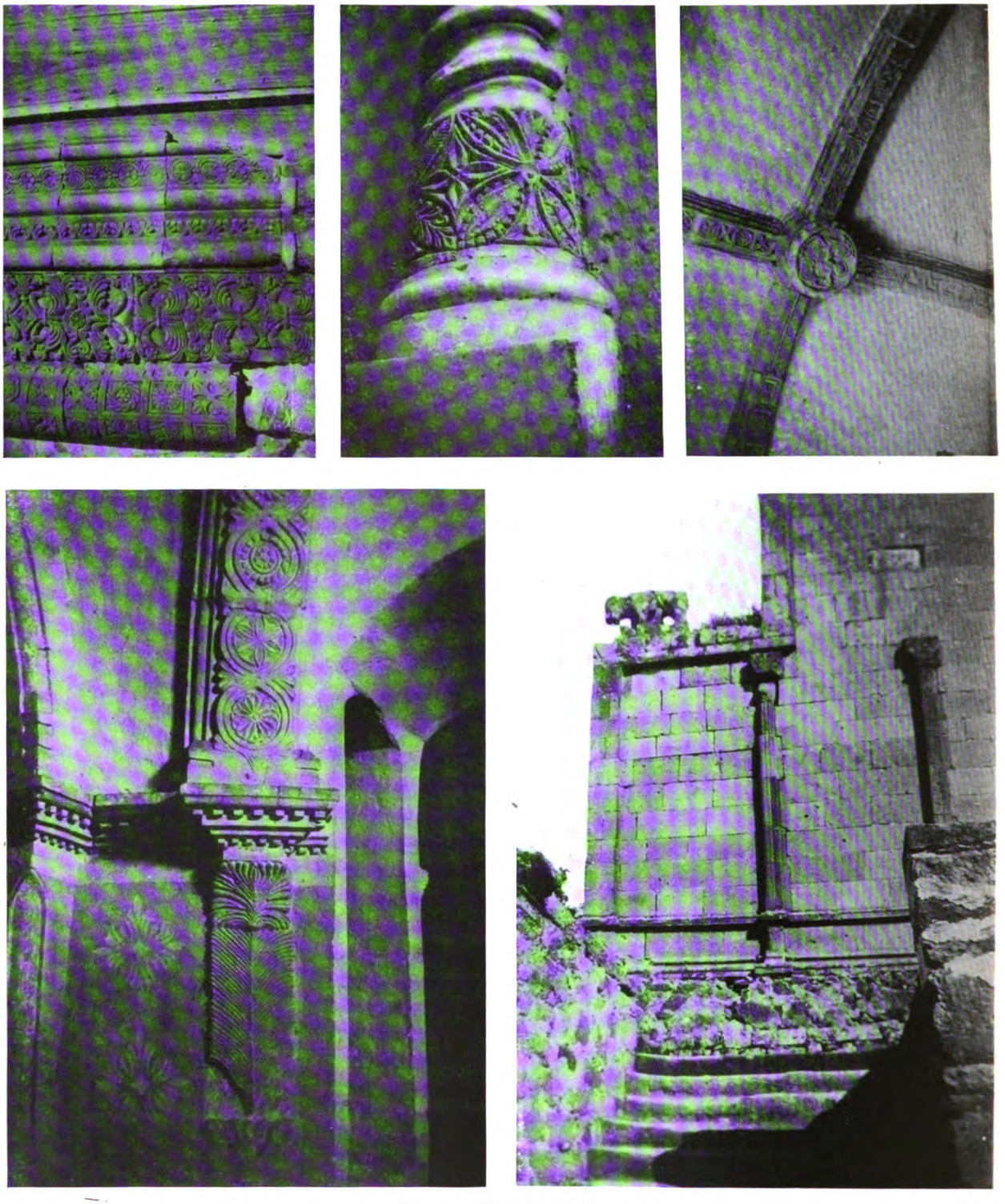
In the latter part of the thirteenth and the first part of the fourteenth century, Gothic forms began to show themselves timidly and we find the facades of many churches of that period pure Romanesque in the lower part with Gothic arches in the middle and the gable—a combination, Scano says, he has not found in any church in Tuscany. The church of the Madonna of Valverdi at Iglesias is one of these. The portal is Tuscan-Romanesque. The original monolithic jambs and lintel have been replaced by a different style of jamb and a lintel in blocks of cut stone, all on a level with the wall. The effect is the same and the lunette is unchanged. The sustaining arch has a delicately carved cornice resting on two corbels with charming carved heads. Above, in the second order of the front and rising up to the gable is a splendid two-light window with acute-angle arch. Of the exquisite tracery, little is left and the center column is gone entirely, the window having been roughly walled up to put in a small common window. Still, one can see that it was pure Tuscan-Gothic and very beautiful. This and many other damages were done when the church passed into the hands of the Capuchins—an order, Scano says, that always abhorred everything of artistic feeling. Above the window are the trefoil arches characteristic of the period, rising with the slope of the roof, and their slender bases resting on a horizontal band except the three above the window. Of these, the center one

S. Pietro—Bosa—Sardinia

rests on the window and the other two on little brackets.

Many of the mediaeval Sard churches had fine wheel windows in their west fronts, but the greater number of these have had their tracery ruined by being walled up in order to put a kitchen glass window in the middle. The Sard is not, and probably never was, artistic, and the continental influences that brought architectural art of a high order to Sardinia died out when Aragon took possession of the island, drove out the learned orders and brought in the mendicant friars.

The church at Bono is Pisan Gothic and its wheel window is nearly perfect. Each spoke of the wheel is carved a little differently. This church has a massive chiseled silver chalice of the twelfth century, of good workmanship, and a fine colossal statue of St. Michael carved in wood by one Tavera in 1393, but injured by having been restored (!) in 1895 by a traveling stone mason by the orders of the then parroco.



DETAILS FROM ARDAULI

The church at Ardauli was consecrated in 1632. The wheel window, however, and a great deal of very fine carving applied both inside and outside the church were brought from a much older church of which not a vestige now remains, but which, I am sure, from the character of the carvings, must have belonged to the end of the thirteenth or beginning of the fourteenth century. There are also two lions,

now put on the edge of the roof but which probably in the old church supported the pillars of the pulpit, as did those in the cathedral of Cagliari. The wheel window is in good condition. The church at Tiesi also, which shows Catalonian influences, has a fine wheel window quite perfect. Here and there they have escaped the usual fate.

The most splendid art period in Sardinia, which produced the most beautiful Romanesque churches, was the century from the middle of the twelfth to the middle of the thirteenth, when we have the S. S. Trinita of Saccargia, S. Pietro of Sorres, N. Segnora of Tergu, S. Antioco of Bisarcio, S. Pietro of Simbranos and others, particularly S. Gavino of Portotorres, the largest and oldest Romanesque church in Sardinia, with an apse at both east and west ends. S. S. Trinita of Saccargia is perfect now, campanile and all, thanks to wise and careful restorations. It has a beautiful porch which has no counterpart in Tuscany and the apse has frescoes of the thirteenth century untouched and in good condition.

Almost all these finest churches are in desert places, solitary and alone. The great monastery buildings connected with most of them have either entirely disappeared or are only a mass of ruins with here and there a fine window extant to show that they, too, had architectural value.

NOTE: The admirable work by Dionigi Scano, "The History of Art in Sardinia from the XI to the XIV Century" is the only book treating fully and authoritatively of the subject and to that I am indebted for may historical details. Signor Scano is the vice-president of the Sardinian Historical Society and the architect who for fifteen years studied the Sard mediaeval churches and advised and superintended the restorations made by the Government.

The Greater Paris Competition*

By NILS HAMMARSTRAND

II. The Results of the Competition

The Problems of Communications, Industry, Commerce and Food Supply

ONLY the authors of the project rewarded with the first prize have had the courage to face the problems of communications, industry, and food supply in their totality, to analyze them penetratingly and to deal with their solution in a truly sympathetic way, their efforts having resulted in a study of the greatest value. They have combined all the transportation problems, coordinating the various features of their plans with the greatest skill. Underlying their conceptions has been a full realization of the fact that Paris is the first industrial city of France, and they have had in mind the ambition of making it one of the greatest commercial centers of the world. Outside, and even in France, it is not generally realized that Paris, before the war, had already developed into a harbor city of great importance. It wants to become still more important and this ambition seems to be entirely justified, the development of its commercial life being indispensable to the future existence of an urban agglomeration, which now counts nearly 5,000,000 inhabitants and which thirty or forty years hence probably will attain to 8,000,000.

The competition comprised four sections. The prizes were as follows:

Section I. Comprehensive projects embracing not only the city of Paris but the whole urban agglomeration.
1st Prize: L. Jaussely, H. R. Expert, L. L. F. Sollier.
2nd Prize: A. Agache, J. Aubertin, A. Parenty, E. Redont.
3rd Prize: J. Molinié, C. H. Nicod, A. Ponthier.
4th Prize: L. P. Faure-Dujarric, A. Berrington, J. P. Chauvés.

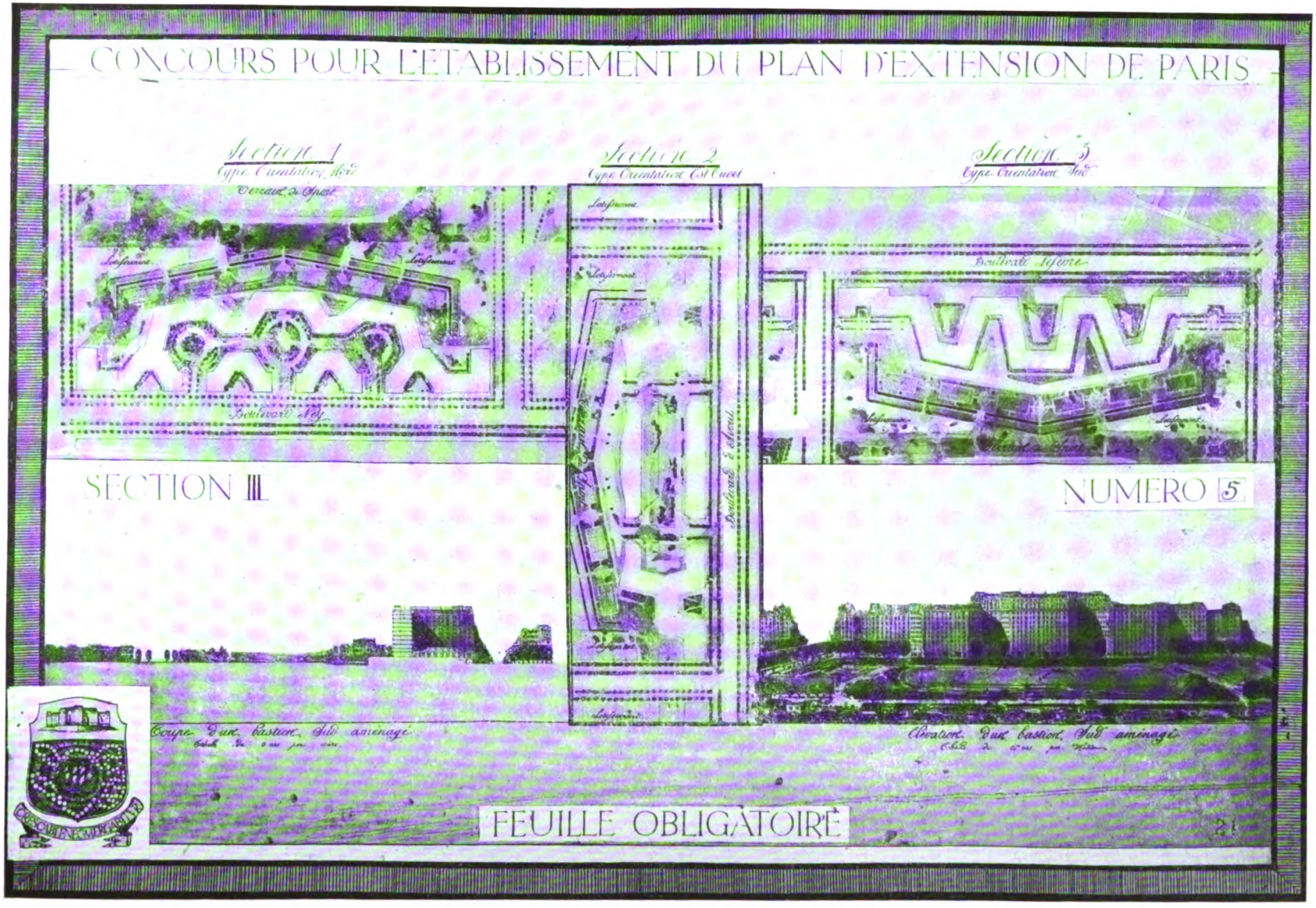
Section II. Comprehensive projects aimed exclusively at the improvement of the city proper.
1st Prize: Pelée de St. Maurice.
2nd Prize: J. Molinié, C. H. Nicod, A. Ponthier.
3rd Prize: L. P. Faure-Dujarric, A. Berrington, J. P. Chauvés.

Section III. Projects confined to the grounds and environments of the fortifications.
1st Prize: J. Greber.
2nd Prize: L. Boileau.
3rd Prize: E. Lachénal.

Section IV. Limited schemes and proposals concerning some part of the city or of the Parisian agglomeration, or dealing with any of the particular problems raised in the competition, or devoted to the study of ways and means for realizing the plans of improvement and extension.
1st Prize: P. de Rutré, P. Sirven, Layret-Dortail, J. Bassompierre-Senrin.

The first prize winners, taking up the economic problems broadly have devoted careful, extensive study to the problems of the harbor, of creating new waterways, and the organization of industrial activities, and the thorough, efficient manner in which they have combined the problems of industrial zoning, of providing harbor facilities and of establishing commercial and industrial communications is one of the many outstanding merits of their admirable project. Furthermore, they have studied in detail all the main questions involved in the great problem of organizing the food supply of the greater city of the future. Here important communication problems have entered into consideration and have been adequately dealt with.

*Continued from the last number.



THE GREATER PARIS COMPETITION.

Third Prize, Second Section. Fortifications and Glacis. L. P. Fauve-Dujarric, A. Berrington, J. P. Chauvés, Architects.

The Great Railway Problem

Finally, every other aspect of the railway communications, as related to a city of such importance, position and size, has been thoroughly considered. In fact, their planning extends from the Atlantic Ocean to the Vosges, and from the English Channel to Bordeaux and Lake Geneva. "The problem of the great city" has been grasped in its full national significance, and it has also been studied as a problem of international bearing and importance. The authors have had in mind the position and relations of Paris as an international center, and thus their planning has had objects in view that lie even beyond the boundaries of France. They have furthermore studied the future needs of the city considered as the center and capital of France and as the great center of an economic region. "Paris and its urban region" and "Paris and the Parisian agglomeration" are two others of the five main viewpoints which have directed the efforts of the authors in solving the communication problems.

Also, though more comprehensive than any of the other projects, the plans of the first prize winners are,—and this constitutes in reality their superior merit,—in a remarkable degree adaptable to the real conditions. In view of their comprehensive scope one is struck by the almost total absence of "the merely hypothetical" in these projects. In producing them, the authors have, in a most fortunate way, kept themselves on the ground on the real, considering present facts and tendencies as the basis of their conclusions, thus avoiding the waste of efforts spent on "speculative experiments," "startling solutions," "theoretical suggestions," such as one often finds in city planning projects of so vast a scope. Hence that stamp of true originality that characterizes these projects.

Paris a First Class Harbor

The great importance which the authors have attributed to making Paris a first-class harbor city, has induced them to propose the construction of a vast system of canals, of which the port of Paris would be the center. In this way they want to connect Paris with Dieppe, with Bordeaux, with Angers. They insist on the extension of the Canal de l'Ourcq, the continuation of the Canal du Nord, the construction of which was begun before the war, the deepening and widening of the Canal de Bourgogne, and on a number of secondary or connecting canals.

Linking Paris with Europe

They propose the construction of a new transatlantic harbor at Brest and the building of a new railway line Brest-Paris, via Alençon and Dinard. The commercial harbors of Nantes, St. Nazaire, Bordeaux, Cherbourg, Rouen, LeHavre, Dieppe, should be improved. All the great railway lines should be at least quadrupled, the new demands in regard to the eastern ones (in consequence of the war) are especially to be considered. Measures aiming at connecting Paris with the European capitals and with the French ports by means of aerial transportation are recommended. Six great aviation centers outside Paris have been planned by the authors.

Linking Paris with France

In studying Paris in its relations to its urban region they have arrived at the conclusion that a great number of new radiating railway lines will be needed to serve this region, "which extends to Chartres, Provins, Chateau-Thierry, Compiégne, Beauvais, and Mantes." While all railway lines serving international traffic should be at least quadrupled, it will be necessary strictly to separate, within the regional limits, the long distance, national or international, passenger traffic from the regional and freight traffic. Accordingly the main radiating lines will have to be sextupled, in order to allow of conducting these three kinds of traffic on separate tracks. By and by all the railways should be electrified.

Circumferential Railways

The authors also propose to develop a system of circumferential railways much vaster than the present one. Outside the present "Grande Ceinture," new and existing railway lines should be combined into two wider railway circuits, both of which should be connected by special branch lines with the proposed great harbor at Gennevilliers. Much attention has been paid to future circumferential parkways, especially with a view to connecting the many forests and parks, existing and new ones, in the Parisian region.

Paris and Its Suburbs

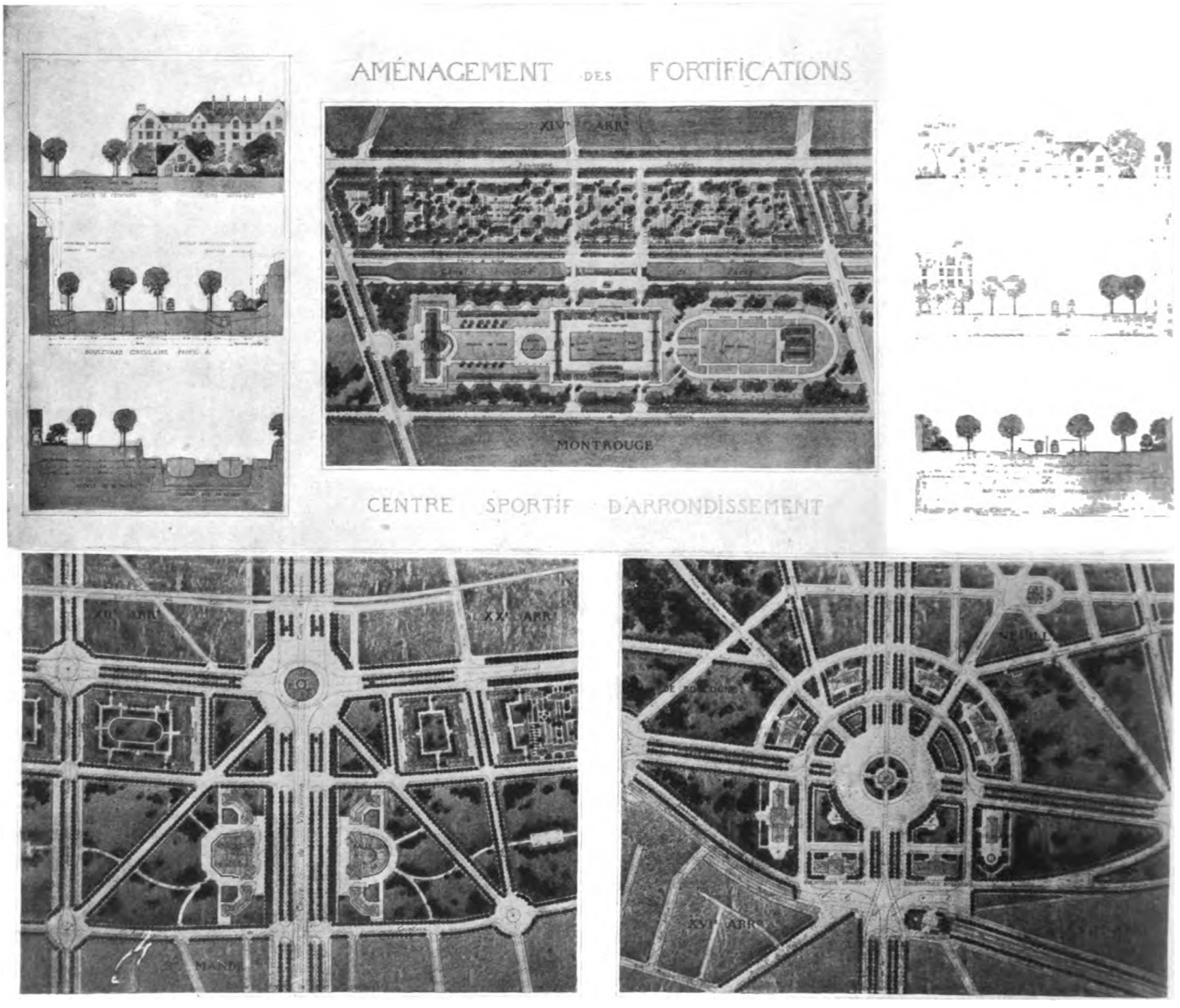
For improving communications within Paris and its suburbs the need of connecting the great railways by means of subterranean junction lines is being emphasized. Discarding the idea of a central railway station, the authors recommend the erection, in more peripheral positions, of new railway terminals for the long distance, national and international passenger traffic. The present great railway terminals, reconstructed so as to answer their new purpose, would exclusively serve local and suburban traffic, for which several subterranean lines traversing the city should be constructed. The authors emphasize the importance of unifying the administration of all the various suburban lines.

Tramways and Omnibuses

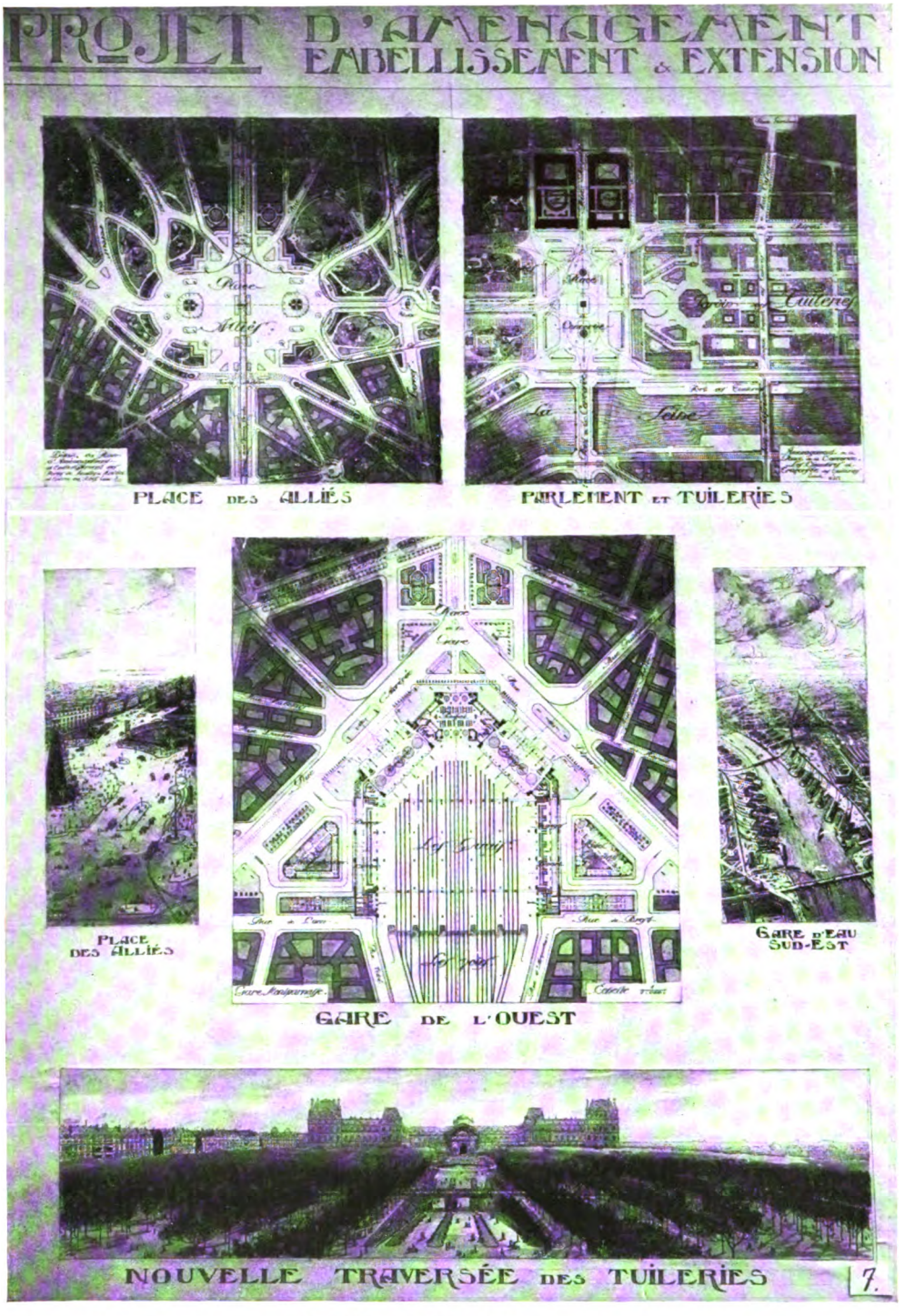
For tramway and autobus traffic the authors recommend abolishing tramways in the center and their development in the peripheral areas on radiating routes into the exterior suburban regions, also to connect the industrial quarters with those inhabited by the workers. Reduction of tramways in the center should be met by developing the autobus traffic which should be extended into the suburbs. Other competitors proposed a reduction of the interior tramway traffic on the surface, for good reasons, it seems.

The Food Supply

Concerning the food supply, the authors have devised an extensive system of railroads to be used especially for this purpose, a great number of "Centers for provisioning" having been planned in immediate connection with them. To meet the need of better market facilities they further suggest that the present Halles Centrales should be replaced by a new extensive market hall center in north-eastern Paris, partly on the grounds now occupied by the municipal slaughter houses and by the cattle market, immediately inside the fortifications. The area of this ground is 20 hectares, but it may be augmented to 32 hectares by extension over the fortification grounds and



THE GREATER PARIS COMPETITION.
First Prize, Fourth Section. Recreation Centers. Jacques Greber, Architect.



The Greater Paris Competition.
First Prize, Second Section. Proposed Squares, Stations, and New Thoroughfares.
Pelée de St. Maurice, Architect.

beyond. Other great market halls should be erected at three different points in the south, southeast and northwest. The new slaughter houses and cattle market should be established north of Paris on grounds measuring about 250 hectares, in the immediate vicinity of the harbor projected at Pantin, this harbor to be connected by a canal with the proposed great harbor at Gennevilliers. A special railway line should connect the new establishments with the central market halls.

The Great Harbor Scheme

To providing harbor facilities the first prize winners have devoted ample attention. Harbor accommodations on so vast a scale as proposed by them will possibly never be provided, but in their plans, that skillful combination which is a general characteristic of their work, reveals itself. Their project aims at constructing in the first place, a vast regional, commercial and industrial harbor at Gennevilliers, inside the big bend of the Seine, north of Paris. In the second place, a great commercial harbor for the national and international traffic should be built at Port d'Achéres, St. Germain, northwest of and at a greater distance from the city. It is pointed out by the authors that about 14 million tons of shipping now pass yearly through the port of Paris. For a comparison they quote some pre-war figures relative to other big ports: in 1913, 19 million tons at London, 25 millions at Hamburg, 245 millions at Antwerp. The river Seine should be deepened to 8.50 m. in order to enable steamers of eight thousand to nine thousand tons to enter the harbor. Several smaller harbors, at Villeneuve, St. Georges, Vigneux, Pantin, Bondy and Aubnay-sous-Bois should complete the port system.

Special industrial and commercial railway lines would have to be foreseen in connection with the harbor system. They would, in the main, follow the course of the present Grande Ceinture, the commercial line encircling the city and the industrial line connecting the various harbors. According to this proposal, the Grande Ceinture, further developed, would thus retain its present main function of connecting the various radiating lines in the interest of the freight traffic. The authors also propose that the Petite Ceinture should be maintained and its lines quadrupled. Subterranean lines should connect it with the Central Post Office and with the great palace for international commerce which the authors propose to construct on the present site of the central market halls.

Industrial Zoning

In the matter of industrial zoning the first prize winners, as have several other competitors, proposed to set aside extensive areas north, northwest and southeast of Paris for the needs of industry. These proposals conform with present tendencies of industrial development and the harbors have therefore been planned within the regions thus designed. However, considerable industry is at present to be found in the southeast and even in the west (Suvesnes, Puteaux). To discourage further industrial development in the last mentioned regions is a well-justified aim. Insalubrious industries should be confined to special areas within the industrial zones. Industrial establishments belonging to this category and already existent in Paris or its suburbs should be transferred to these areas.

The competitors have, as might be expected, arrived at almost identical conclusions in regard to the establishment of industrial zones. Accordingly, there is also great similarity in the projects in regard to the position of the harbors. But here the similarity ends, as respects the solution of the problems of communications, commerce and industry. That broad, daring and exhaustive handling of the problems which is characteristic of the plans of the first prize winners we do not find anywhere else. Yet. it remains to be said that the second prize winners have offered some good suggestions in regard to the improvement of the interior subway system and also the project rewarded with the fourth prize contains valuable proposals with regard to communications, especially the suburban and regional ones. The harbor problem has been well handled by the third prize winners, whereas the authors of the second and fourth projects have devoted too scant attention to this important phase of Paris' development. Features deserving attention are, however, to be found in all the rewarded projects, and all of them have their own outstanding merits.

The Handbook of Architectural Practice

The response to the pre-publication announcement of the Handbook of Architectural Practice indicates that the first edition will be exhausted at a very early date. Every effort has been made to reach all the practicing architects in the United States and Canada, and those who have had no prospectus of the Handbook are urged to send their names to the JOURNAL office without delay.

As soon as possible arrangements will be made for supplying a sample copy of the Agenda to all architects. It is believed that this new and very complete form for keeping a record of all the steps connected with a building undertaking, from the very inception of the idea to the final completion of the structure, will prove to be one of the most valuable documents ever supplied to architects. It will be sold at a small price and it is hoped to have sample copies ready some time in October.

Subscribers to the Handbook may expect to receive their copies early in October, although the publishers ask that they be as patient as possible, in view of the great difficulties attending upon the printing and binding of a book at this time.

Readers of the JOURNAL are again reminded that the pre-publication price of the Handbook is Five Dollars in the United States and Five Dollars and Fifty Cents elsewhere, and that the right is reserved to advance this price after the first edition is exhausted.

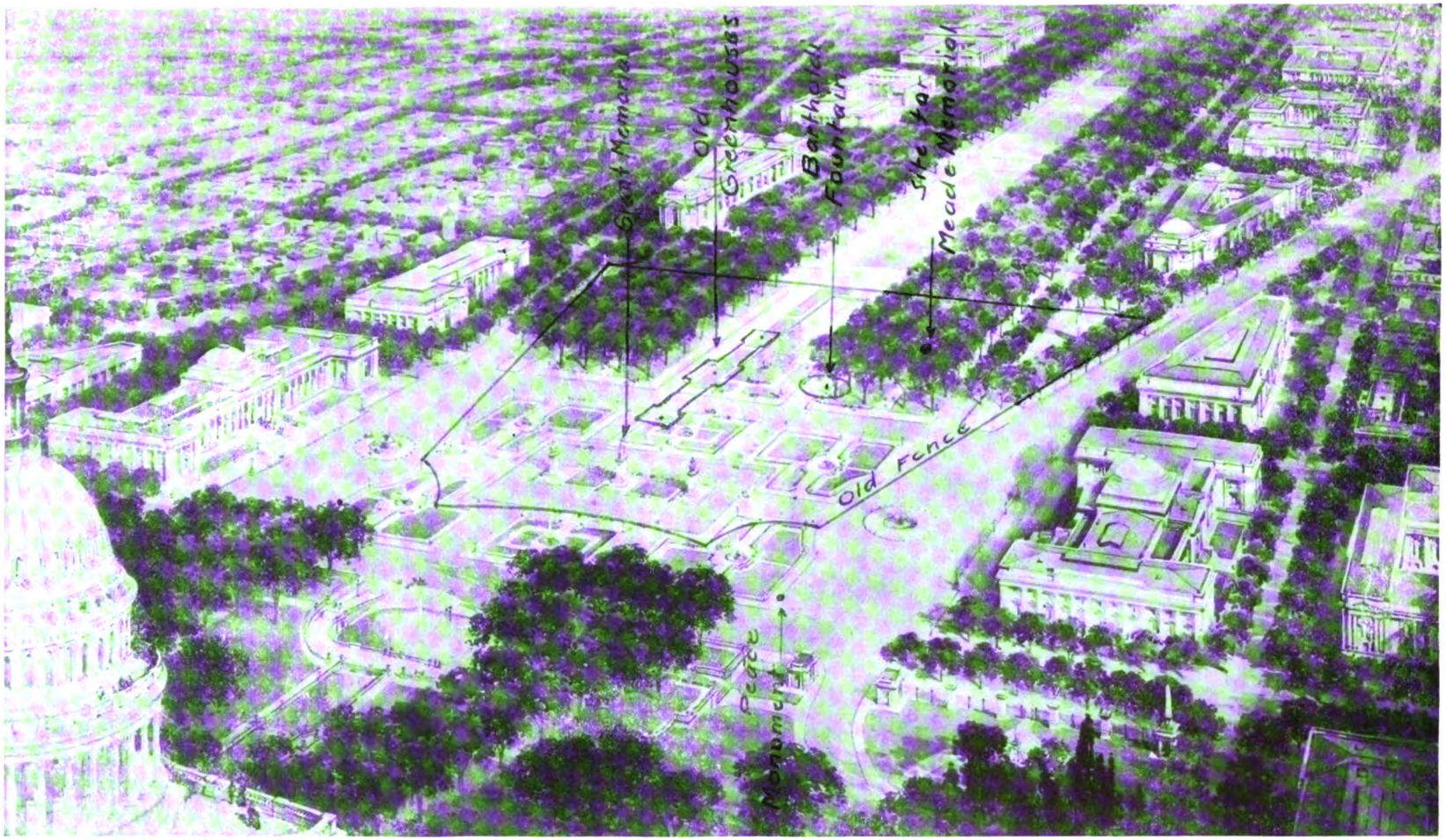
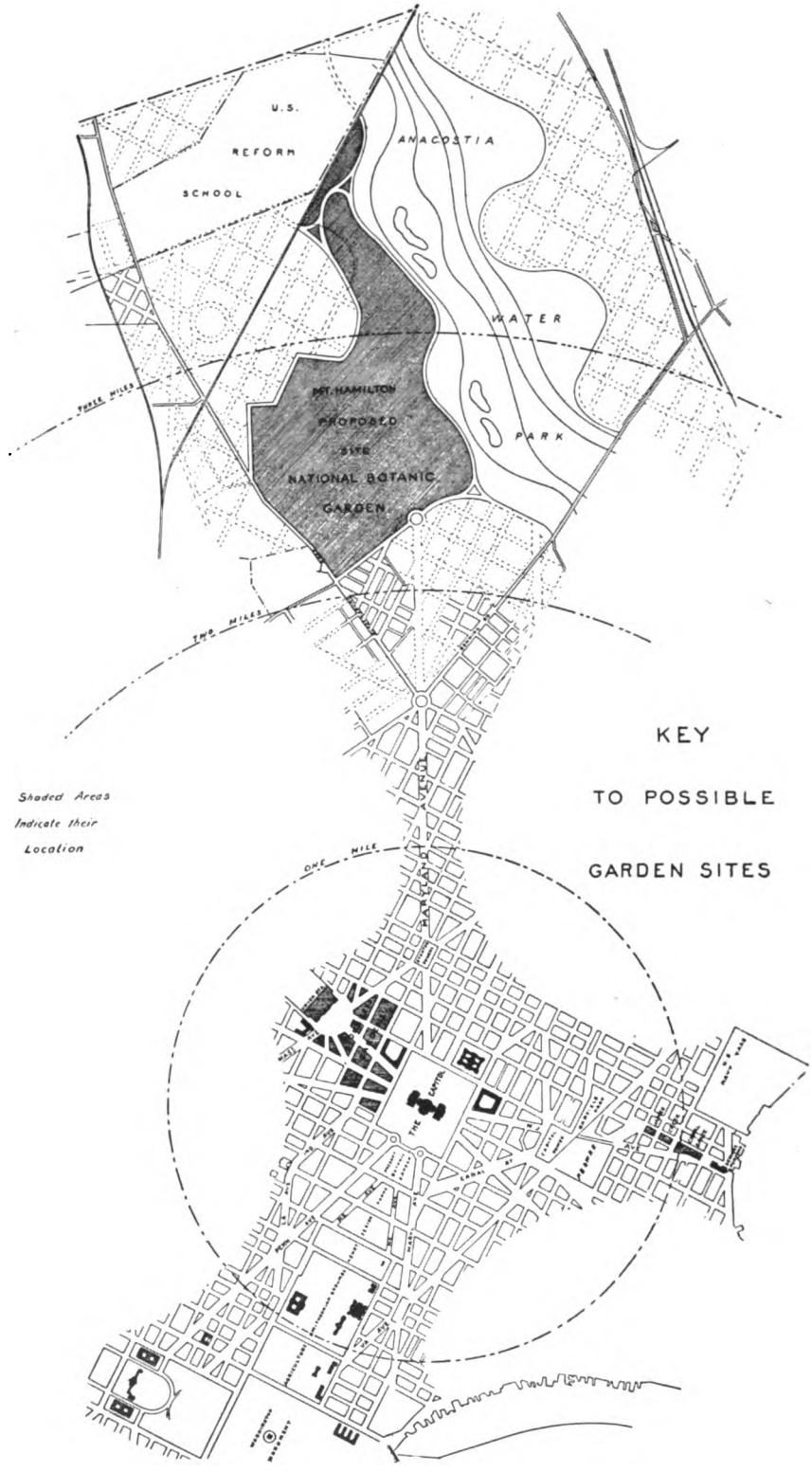


Illustration showing the present site of the Botanic Garden in Washington. The sites of the Grant Memorial group and the Meade statue are indicated and clearly show that their selection was based upon the belief that the Botanic Garden would ultimately be removed in order that the Washington plan might be carried out. It is evident that there can be no great progress in this direction until the Botanic Garden is removed, but it is also equally clear that the Botanic Garden can never serve any really useful purpose in its present location. See page 350.



Key map showing the relation of the proposed new site for the Botanic Garden to the Capitol Group and the Mall. See page 350.

The British Guildsmen and Their Plans

Two Reviews: Ralph Adams Cram and Frederick L. Ackerman.

*A Guildsman's Interpretation of History

By Arthur J. Penty, London, Allen and Unwin; New York, Sunrise Turn, Inc.

Mr. Penty might better have called his book* "An Intelligent Interpretation of History," just for the purpose of setting it apart from pretty much all the other history books that have been written during the last century. Of course there have been others since the time of old William Cobbett who almost alone in the nineteenth century, saw history as straight as he saw contemporary economic conditions—and their far-away goal; men like Chesterton in England and Henry Adams in America, but no one has dealt with world-history in quite the comprehensive way evinced in this book, while certainly no one has seen quite so clearly and therefore produced anything exactly resembling this in its staggering reversal of so many universally accepted estimates.

The book comes naturally enough. Mr. Penty, as everyone knows, or should know, is the protagonist of a restored guild system as the only righteous basis of society and industry. Detesting bolshevism quite as passionately as he detests capitalism, and state-socialism only a little less, he has in three notable books ("The Restoration of the Guild System," "Old Worlds for New" and "Guilds and the Social Crisis") developed his plea for a return to the Mediaeval Guilds as the only escape from Hilaire Belloc's "Servile State" and from—which is worse—insane anarchy under the dictatorship of the proletariat, proclaimed (though not practiced) by the bolshevists. In this process he has shown Mediaevalism, the Renaissance and Modernism under startlingly new aspects, and the hangers-on of nineteenth century superstition and ignorance have not been slow to challenge his estimates. In the circumstances therefore, he has found it desirable to put his historical views into clear and compact form, and the result is as convincing and illuminating a piece of work as one is liable to encounter in a generation.

Of course he utterly rejects the "economic interpretation of history," that gross perversion of decent sense that has degraded so much alleged historical writing since the dark ages of the Manchester School, and he shows clearly how fundamental are spiritual values, concepts and influences. In this sense he interprets history, which at his hands becomes something more than wars and diplomacy, and "the doings and death of kings," or the chicanery and traficking of trades and producers. Economics performs its part, of course, but in its proper scale and place. His demonstration of the part invariably played in bringing nations and civilizations to an end, by an unregulated currency and the abandonment of the "just price" in favor of fluctuating prices subject to the "law" of supply and demand and the orthodox doctrine of political economy, "buy in the cheapest market and sell in the highest," is striking and illuminating. So fell the Roman Empire, and the Middle Ages (after four centuries of the nearest approach to a Christian society we have known) and so is falling, and must fall, our era of modernism.

How and why Mediaevalism came to an end after its long period of righteousness and glory, is here set forth, so far as I know, for the first time. I have written much on this period, but I confess it was always rather a mystery just why so great an age should have met in the end with such complete disaster. The Renaissance and the Reformation were *particeps criminis*, of course, but why the Renaissance and Reformation anyway? Why did they ever happen and why was their victory so complete? Mr. Penty shows quite clearly that behind them and giving them "power over all nations and peoples" was the substitution of Roman law for Canon law.

This is perhaps the most brilliant portion of the book. It cannot be epitomized, it must be read in detail. Canon law, he says, was created to make it possible for good men to live amongst bad, Roman law, to permit rich men to live amongst poor. The bearing this has on the Renaissance substitution of monarchical absolutism for the free, democratic-aristocratic Kingship of the Middle Ages; on the crushing of the guilds by imperial finance and industry; on the growth of Protestantism and Puritanism and their curious victories at the hands of Luther, Calvin, Cromwell, Knox, and their ilk, and on the fabulous development and merciless dominion of industrialism in the nineteenth century, is, or ought to be, obvious. It will be, to those who read this remarkable book.

Mr. Penty makes one interesting point that has perhaps escaped the notice of many people,—with the exception of Mr. Ludovici in his "Defense of Aristocracy"—and that is that the Puritan revolution in England under Cromwell was at bottom a conspiracy of profiteers and exploiteers of the poor, and that Charles I was actually the last royal defender of the interests of the poor against the greed and rapacity of this new class of covetous and unprincipled aggressors. It was this adherence to the old ideals of a just and righteous society that made him a martyr to those who were stronger than he since they represented the new spirit that was to control society for three hundred years (even if it had in the end to perish of its own folly and unrighteousness) while he represented only the old Mediaeval ideals of justice, equity and mercy.

Mr. Penty has given us at last a rational interpretation of history, and a unification of history that makes cogent what was else sporadic and incoherent. Greece, Rome, the Middle Ages, the Renaissance, the German Reformation, the suppression of the monasteries in England, Puritanism, the Commonwealth, the French Revolution, the "Age of Progress," modern industrialism, all show in a light that is both different and clear. How different it is in each one of the cases named above, is hardly to be measured by common standards; it amounts to a complete reversal in many cases, to drastic amendment in others. It was time that history was rewritten, for hitherto it has been, on the whole, and in its written form, grossly misleading. But history is the very basis of all culture, of all

wisdom in public affairs of every sort. and if it is malignant in its falsity, as was so much of the written history of the last century, then it becomes a very insidious and fatal poison. This new and sane lucid history should become a text book in every public school, or at least form the model on which a new series of text books should be written.

If, after reading the author's other books specifically on the guild system and its possibility today as the only solution of the economic, industrial, political and social catastrophe in which "modern civilization" has involved the world, one had any lingering doubts as to the rightness of his position, this latest book will dispel them all. It is no longer a case of the special pleading of an expert in favour of a certain system, for here the system itself is linked up with all the varied history of all the peoples of Europe, taking its due place in the large pageant of the rise and fall of human life, always repeating itself in its vast vibrations, and somehow, even if it records no absolute progress expressed in terms of time and sequence, developing men, communities, even races, and for brief periods whole continents of splendid character and achievement, even though this day of growth to maturity was always followed, and always will be, by that decline into servility the only issue of which is death. Yet each era as it passes, each human group, each well developed individual, leaves something of its own character, some prize of its own achievement, as a heritage to those who come after. Rightly seen and rightly used, this may be of inestimable value, and this is the virtue of history.

For us of today is especially the lesson of the social organization of the Middle Ages, through which, though even at the eleventh hour, we may achieve salvation and avert the threat of a new period of Dark Ages now so clearly indicated by the futile contention of a moribund capitalistic-parliamentarianism and a poisonous "dictatorship of the proletariat." Either way lies ruin and the end of European culture and civilization. In the third way lies the only reasonable hope.

The last sentence in "A Guildsman's Interpretation of History" reads as follows:

> "For after all there are only two types of society that have existed since currency was introduced—the capitalistic civilizations of Greece and Rome and of modern Europe and America that did not control currency, and the communal societies of Mediaeval Europe and Asia that did. There is, finally, no third type of society, inasmuch as all societies conform to one or other of these types, differing only to the extent that in different societies emphasis is given to different aspects of them. Hence it is reasonable to suppose that as the capitalist civilization of Rome was followed by the communal civilization of Mediaevalism, the reaction against capitalism today will carry us along to a future where the promise of the Middle Ages will be fulfilled."

Well, there *is* a third type which is neither capitalist nor communal, where a group of unscrupulous tyrants and oligarchs exploits a "class-conscious proletariat" to its own ruin and that of civilization itself. If it is to be balked in its present sufficiently avowed aims it would be well to learn from history, if we cannot ascertain (as we cannot) from our teachers, just what form of society can be established as a rampart against the rushing flood of this new barbarism. Capitalism and parliamentarism are helpless it would be well to try the Mediaeval alternative—and to try it soon!

Mr. Penty is an architect, and the profession should congratulate itself that he is of their ilk. It is rather remarkable when you come to think of it, how many architects there are in America and England who are getting outside their own art and making constructive contributions at this time to economics, sociology, politics and philosophy. Remarkable but not inexplicable. Architecture is the great constructive art, and by instinct, training and practice, architects are constructive men. At a moment when all the other forces in operation are destructive, what the world needs is men who are constructive and creative. If the profession of Architecture can furnish them there is still a chance that we may yet be saved.

RALPH ADAMS CRAM.

Mr. G. D. H. Cole's fertility and industry are astonishing. "Social Theory" appeared about two months ago: Here we have another volume in which the author promises another in which he will deal with the problems of government and administration and with the relation of the Guilds to the State. For the greater part, this material is new; certain passages have been revised from recent articles in British journals, The *New Republic*, *The Dial*, and *The Journal of the American Institute of Architects*. For those who are not familiar with the author's point of view and recent industrial developments in Great Britain, this book may serve to indicate what the Guildsmen are driving at. For the author is clearly the most conspicuous of the younger British school of industrial theorists—one of the leaders, one may say—of the Guild movement in England.

It is impossible to here present even a summary of Mr. Cole's thesis. One gathers the impression that the Guild movement, as advanced by the author, is in the nature of an attempt to interpret syndicalism and adapt it to British habits of thought(this the author might deny).

In such chapters as "The Cause of Strikes," "Motives in Industry," "Coal," "Railways," "Engineering and Shipbuilding," "Cotton and Building," one finds a clear interpretation of the present discontents—as viewed by the Guildsman. The argument runs, of course, to discredit Capitalism and to indict the State, functioning under Capitalistic control. But Mr. Cole criticizes the "Plumb Plan" (American), and the Miner's (British) demand for nationalization. To one who holds that Capitalism must be retained at whatever cost to the community at large—because it was father's way of doing things—the indictment will present some difficult passages to meet in argument. But he who would retain the present order may derive a little comfort out of e. g., the chapter on "The Guild Solution." But what comfort he gets will be largely confined to asking: Will it work? And nobody can possibly answer that question. Nobody knows.

One cannot read Mr. Cole's volumes without coming to the conclusion that he has done much both by way of clearing the ground and in preparing plans of action. While the problems relating to the organization of single industries and of many industries are treated with precision and an atmosphere of finality, the same may not be said of the

treatment of that vitally important phase—the relation of the Guilds to the State. There appears to be a gap in the argument at this point. This gap furnishes the subject of the forthcoming volume.

As I understand the argument, the State, under Guild Socialism, would appear as one of a group of coordinated interests rather than as an ever increasing absolutism, as now. That is to say, Guild Socialism would divide life into functional interests or activities (vocational is too narrow a term, I take it), giving to each functional group a system of autonomous government which would become coordinated in a joint Congress through which the special aims and purposes of the several groups would find expression.

It is not difficult to follow the Guildsman's indictment of the existing system; nor to follow the argument concerning the imperative need of industrial group organization. But it is not easy to understand how it is proposed that these industrial organizations shall function in relation to the State. It is merely clear that there is a groping after a pluralistic conception of sovereignty. It is in the lack of definition of aim with respect to this vital matter that the weakness of the Guild proposals lie.

Of course it is asking rather too much to require that the Guildsman define at the outset in terms of precision not only the ultimate goal but the technique, industrial, social, and political, through which it is proposed to achieve that end. Mr. Cole's impatience here and now to develop a working basis for a New Social Order to take over defunct Capitalism is no doubt due to the belief that "direct action" will not wait much longer upon a policy of obstruction to change. And throughout the argument (also of the Guildsmen) there runs the assumption that it is generally acknowledged by the workers that the present economic system has failed. The assumption also runs to the effect that the reason for this failure is clearly understood. And there is the further assumption that through the immediate preparation of definite plans of action looking toward the complete reorganization of industry and the political State, the transition can be more speedily and certainly effected.

If these assumptions are examined in the light of current concepts, habits of thought surrounding, e. g., the rights of ownership and what alone is deemed sufficient to animate productive effort, it is hardly to be said that the present discontents have become articulate as to what has been their occasion.

That is to say, to the majority of workers, the rural population, and in particular those workers not engaged in the great industries located in congested centers, the rights of ownership stand fairly secure upon their time-honored grounds of validity. So, also with respect to the concept of profit as that alone which will animate men to engage in productive effort—that stands firm. True, the validity of these time-honored notions is being questioned by an ever increasing group. But it is hardly to be assumed, as yet, that opinion regarding property and profit has gone much beyond a consideration of their more general distribution. The immediate issue concerns a quantitative change rather than a change which proceeds from a change in our habitual attitude toward property and profit.

So out of a rather nebulous idea as to what has operated to create the present discontents, upon a group of fallacious preconceptions regarding the rights of property and the function of profit, the plans of a new social structure are seen to emerge. Plans no doubt there must be—and it is hardly to be denied that something in the nature of a hope that the transition may be achieved without recourse to wager of battle is contained in the British situation. But even so, I am not at all convinced that what is most needed at the present moment are plans of action, for these, indicating as they must the nature of a future social structure are certain to appear as Utopian. Utopian plans have ever diverted attention from an analysis of the conditions out of which they grew. Too much emphasis upon what is is to be done about existing discontents draws attention away from why they are present.

What *is* the matter? Why the present discontents? There are many ready answers to this question, but judging from the evidence at hand, it is fair to say that it is a matter not very well understood even by those who talk as if they knew. But out of this confusion of evidence and opinion concerning what is the matter, and what is to be done about it, it is plain enough that the matter is to turn sooner or later upon the question of absentee ownership. But so much is acknowledged by only a few.

So, the question before us is not, do we agree with Mr. Cole's synthesis? It is, instead, are we ready for it? We hold to certain definite concepts concerning property rights or rights of ownership. As it is generally denied that out of these rights of ownership arise the present discontents, I think we are not ready. Hence, what appears to me of most value in Mr. Cole's effort is his analysis of the existing system. But on the head of how the rights of ownership bear upon the present discontents one may do well first to turn to Veblen's "Theory of Business Enterprise" and then to Mr. Cole's synthesis.

It may be to the point in this connection to recall briefly certain circumstances surrounding the publication of "Looking Backward" by Edward Bellamy in 1887. It is difficult at this date to account for the remarkable sale of that book here and abroad. That it was presented in the form of a novel no doubt accounts for a large part of the circulation, yet it does not explain why hundreds of thousands were sold. The theme is sufficiently familiar to warrant passing directly to the point to be considered. In the numerous reviews, in all of those which appeared in the "important" periodicals, attention was directed exclusively to the details of the new social order as set forth by Mr. Bellamy. In not one of them which I have examined is there any reference to Mr. Bellamy's analysis of the financial industrial system which he indicted on certain then fairly well formulated grounds. Even the economists of that day discussed the subject on the ground that the Socialistic scheme was impossible, as of course, it must be under such standards of evaluation as they could summon out of their mass of hedonistic preconceptions of economic science. That is to say, they completely missed the point which was brought forth in the analysis that such a discrepancy had arisen as between the actual conditions of society and industry and the body of law and custom carried over from an earlier day, as to threaten the permanence of the existing order. It was a case of failure to see the wood because of the trees.

This is illuminating in that much of what Bellamy had to say in a tentative way in his novel, as to what was

likely to be the outcome of the existing industrial system has been substantiated not only in theory but in fact. This is not to imply that Mr. Bellamy was merely a prophet; it was rather that he set forth the then unorthodox viewpoint of a group of economists who were engaged in liberating economic science from the bonds of hedonism.

Bellamy grasped the essentials of the later science of economics in that in his suggestions for a new social order he clears the field by the complete abolition of absentee ownership and the profit system, since he viewed these as institutions which would in the end defeat any form of organization. To read this volume of thirty odd years back in the light of what has transpired in the last five—particularly in the light of European experience, is a little startling. And to read the critics who failed to see the point of the argument and who stood so secure on the ground that the modern industrial system was infallible, that it was the last word, that there could henceforth be no change,—well, it is one on the critics; and it also carries the implication that those who now make use of the same criticism against any change are likely later to find themselves in the same boat. FREDERICK L. ACKERMAN.

Correspondence

A PLAN FOR INCREASING THE ACTIVITIES OF THE INSTITUTE

TO THE EDITOR OF THE JOURNAL:

It is clearly evident that any increase in Institute activity (and few will dispute the desirability of such expansion), must be contingent wholly upon increased financial resources. In fact, even to make adequate provision for present activities, the Institute's income should be enlarged. To increase the regular dues for this purpose would in many cases prohibit membership, thereby retarding the desired growth of the Institute, especially in fields where its influence is most needed.

The alternative course herewith proposed is: First, in order to enlarge the Institute, reduce the dues to a minimum; second, increase the revenue by an assessment of the membership based upon annual gross income from practice, the rate of assessment to be determined by the budget and program adopted for the year's business.

This method may appear radical but the justice of it may appeal to many after careful scrutiny of its merits. It is of course true that the heavier burden would fall upon the more fortunate and successful practitioners, but the advantage gained in creating a livelier interest in existing and expanded Institute activities would be very great in the councils of the administration. The beneficial influence of the Institute is ten times greater to the man earning 100,000 dollars a year than to the man earning only 10,000 dollars, yet each contributes the same amount to the support of the Institute and for unequal benefits received.

A voluntary tax is suggested of one-fourth of one per cent upon the annual gross income of members of the Institute. This, it is believed, would yield 100,000 dollars, or about four times the present annual income. With such an increase, the Institute might readily undertake the expansion of its activities to four times their present volume. The gratuitous labors now performed by self-sacrificing committees should be taken over by compensated assistants, wherever this were possible and advisable.

In the educational field, an Educational Bureau amply financed would enable the Institute to maintain a close contact with all the schools of architecture. It could assume the initiative, if necessary, in establishing a coordination of courses with the requirements of practice. The offices must suffer if tuition is faulty, and the Institute as representative of the best in experience and culture, should be the clearing house for all questions affecting architectural education. The ambitious student should be encouraged, no matter where enrolled, by prizes awarded for merit in design, craftsmanship, and draughtsmanship, the work to be exhibited at the annual conventions.

Likewise, with ample resources, the Institute may give financial aid as well as endorsement to the Overseas School for traveling architectural students, which is a by-product of the A. E. F. Schools of Architecture in France in 1918-19, the story of which has been told in the Journal. The continuance of the Overseas School in 1920 had to be abandoned for lack of funds and shortage of steamer accommodations, but it is now proposed to hold it in 1921. Here is a real opportunity for the Institute to foster a greatly needed educational activity.

A beneficial expansion of Institute activities would provide for closer contact between Chapters and the Administration. Until the Institute is put on wheels, so to speak, the stimulating influence of its activities can only reach the distant zones in but faintly perceptible ripples, The report of the membership committee at the last convention leaves no room for argument as to the necessity of devising ways and means for enlarging the Institute.

It is futile to enlarge further upon opportunities, for they will be realizable only through an increased income. The present revenue system is obsolete for the purpose of making the Institute of "ever increasing service to society." Wise farmers put back into the soil a part of the wealth they extract in order to maintain productivity and revenue. What they put back is in truth nothing more than a tax upon their production—a part of what comes from the land on which they are utterly dependent. The Institute is the instrument by which the same fertilizing process can be accomplished for architecture, if architects are willing to put something back in the field on which they live.

Finally, let me suggest that an amply compensated committee be set to work to study the possibilities of an Institute enlarged in membership and in usefulness through an increased revenue in some manner to be obtained.

ERNEST COXHEAD.

(NOTE—Correspondence on this proposal is invited and will be treated as confidential if desired. It would seem important that some expression of opinion be recorded, as a guide to further action, and this opinion should come equally from the fortunate hundred thousand class, as well as from those who struggle for a bare livelihood.—EDITOR.)

Preliminary Notice—LeBrun Traveling Scholarship Competition

The Executive Committee of the New York Chapter of the American Institute of Architects, as Trustees of the Traveling Scholarship, founded by Pierre L. LeBrun, announces a competition for the selection of a beneficiary, the programme of which will be issued about November 1, 1920, calling for drawings to be delivered about January 15, 1921.

The following excerpts from the deed of gift explain the award and conditions:

"Fourteen hundred dollars . . . is to be awarded, ... to some deserving and meritorious architect or architectural draftsman, resident anywhere in the United States, to aid him in paying the expenses of a European trip, lasting not less than six months."

"The selection of the beneficiary of the scholarship is to be by means of a competition . . . and the drawings called for . . . are to be submitted for examination and judgment to a jury consisting of at least three practicing architects, no one of whom is to be connected with any school or atelier for the teaching of architecture. In making the award the jury are to give a full and careful consideration to the records of qualification filed by the competitors as well as to the comparative excellence of the drawings submitted."

"Any architect or architectural draftsman, a citizen and resident of the United States, not under twenty-three or over thirty years of age, who shall, for at least three years, have been either engaged in actual practice, or employed as an architectural draftsman and who is not and has not been the beneficiary of any other traveling scholarship, shall be eligible to compete."

"Every competitor must be nominated by a member of the American Institute of Architects who shall certify in writing that the above conditions are fulfilled, and that in his opinion the competitor is deserving of the scholarship. No member of the Institute shall nominate more than one (1) candidate."

"Every competitor must engage to remain, if successful, at least six months abroad and to devote well and truly that length of time to travel and the study of architecture otherwise than by entering any school or atelier or attending lectures, it being intended that the benefit derived from this traveling scholarship shall supplement school or office experience."

"The successful competitor shall write from time to time, but not less than once every two months, to the New York Chapter of the American Institute of Architects, giving an account of the employment of his time."

It is requested that those wishing to enter the competition arrange at once for their nomination by a member of the American Institute of Architects, according to the conditions outlined above, which nomination should be sent with his application so that it may be received before November 1, 1920, to Louis Ayres, 50 East 41st Street, New York City, (Chairman LeBrun Scholarship Committee).

News Notes

Discussing the question of trades unionism, the Minnesota Chapter adopted the following resolution:

"Inasmuch as both labor and the employers of labor have res quested the Chapter to endorse and put into their specification-clauses demanding either the Union policy or the Open Shop policy, be it

"*Resolved:* That the Minnesota Chapter of the American Institute of Architects, as a body, can endorse neither one side nor the other. The Architect, by the very nature of his profession, must be entirely impartial until or unless the client expresses his individual desires. It is therefore suggested, in the interest of harmony and uninterrupted work, that each Architect, before taking bids on work, shall take up the matter with his client and ascertain his wishes as to how the work shall be conducted and shall select the bidders accordingly."

Two new contract forms have been issued by the Institute, namely:

A Form of Agreement between Contractor and Owner, for use when the cost of the work plus the fee forms the basis of payment; and a Circular of Information relative to the Cost Plus Fee System of Contracting for Building Construction. Copies of these new documents have been distributed to the entire membership of the Institute and their use is recommended. Hereafter they will be for sale through the Executive Secretary at the Octagon House, Washington, D. C., and in due course through the agents for the Standard Documents. The price of the Agreement will be ten cents (.10) per copy, and the price of the Circular six cents (.06) per copy.

Registration laws in the various states will be carefully considered at the first formal meeting of the National Council of Architectural Registration Boards in St. Louis on November 18-19 next. Membership in this body is restricted to those holding appointment on official state registration boards, and efforts will be made to harmonize existing laws and to recommend a uniform law. Mr. Emil Lorch, 718 Church St., Ann Arbor, Mich., is Chairman of the body; the Secretary is Mr. Emery Stanford Hall, 64 E. Van Buren St., Chicago, Ill.

Appealing to their American conferees for help, the Central Society of Austrian Architects and the Vienna Architectural Society, numbering together 500 members, have addressed a request to the Institute. At the last meeting of the Executive Committee it was directed that the appeal be published in the Journal and that any contributions be sent to the Treasurer of the Institute at the Octagon House. The professional class throughout Europe has suffered extremely, as a result of the war, and the conditions in Austria, as is well authenticated by the British official reports, are desperate in the extreme.

Offering a Five Hundred Dollar Prize and the assurance of adequate recognition to the winner, in the form of a tablet or otherwise, the Cleveland City Plan Commission announces a competition in suggestions for the future use of Erie Street Cemetery, a nine acre plot of ground in the heart of the business district of Cleveland. A program of the competition may be obtained from the Commission, at the City Hall in Cleveland.

RESPONDING to a communication from the Institute in which was expressed its appreciation of the work done by the Army in organizing and fostering the schools of architecture in France, the Secretary of War has directed that the question of establishing a vocational school for architectural training as a part of the Army scheme of education shall be carefully studied by a division of the General Staff.

ANNOUNCEMENT is made by the Victoria and Albert Museum (London), of the publication in pamphlet form of the accounts of the firm of Chippendale, Haig & Co., for furnishing David Garrick's house in the Adelphi. For one who made such a mark in the development of furniture extraordinarily little is known about Chippendale. He came from Worcester with his father before 1727, occupied workshops successively in Conduit Street, Long Acre, and St. Martin's Lane, and was elected a member of the "Society for the Encouragement of Arts, Manufactures and Commerce"—and that is all concerning his private history that can be stated with certainty about him. The total cost of the furniture recorded in these accounts is £931 9*s.* 3½*d.* We have it on Dr. Johnson's authority that at this time Garrick lived as a prince rather than as an actor, "his table, his equipage, and manner of living are all most expensive and equal to those of a nobleman." We can therefore draw some interesting inferences as to the difference in the cost of furniture then and at the present day. The accounts give considerable details of the various articles of furniture supplied. "In the case of the drawing room the walls were papered and finished with a gilt leaf border; fringed curtains of green silk damask hung at the windows and the same material covered the *bergères* and sofa, which were japanned green and yellow; two pier glasses were placed, no doubt, between the windows; and the scheme of arrangement was completed by a third mirror two pembroke tables and three commodes of inlaid wood." The pamphlet will prove of great interest to the student of furniture.

L'ARCHITECTURE contains a brief note relative to the apparent effort to federate the building industry in France. Curiously enough, in a country which is supposedly more than usually mindful of architecture, the article states that: "When the other political sections make up their lists, we will make up ours, and as the groups devoted to food, commerce, industry, and agriculture formulate their demands we will present our own, demanding that recognition in Parliament which is our legitimate right." The signer of the article calls for an urgent effort and the suppression of all organizational jealousies and distrusts. Will they manage these things better in France?

SOUTH AUSTRALIA is looking forward to legislative enactments which will establish town planning as a requisite to all urban developments. Indeed, says the Adelaide *Advertiser*, "We may see the time when towns will be guided by the best architectural and artistic ability in the country, while local bodies either retain their own experts—whose minds will always be running on possible improvements—or seek advice from the central body." Evidently the press of South Australia is enlightened to a considerable degree.

South Australia is evidently following the example of the mother country and the State is preparing to lay out new towns and garden cities. In no case in the future, will communities be allowed to arise, says the same journal, "without conscious forethought as to the requirements alike of health and beauty."

ST. SOPHIA in Constantinople is the subject of a very disquieting report by Mr. Sydney Toy in the London *Times*, who after visiting the edifice in April and May of this year writes:

"The dome of St. Sophia, considering its great size and the character of its supports, manifests a structural perfection which is probably unsurpassed in any other building. Nothing but the application of such consummate constructive principles has preserved it from failure under the stresses to which it has been subjected and the successive shocks it has sustained. As it is, the dome is distorted and deflected in all directions, and, although this distortion is not immediately alarming throughout its surface, it certainly is so on the northeast. The ponderous weight of the twenty-three great iron chandeliers depending from the dome cannot but have, in its present state, a sinister influence on its stability.

Apart from the main buttresses, the four pendentives are reinforced by heavy rectangular structures which are quite distinct from the adjoining brickwork and contain stairways. They begin at the level of the haunches of the pendentives, are stopped at the platform on which the dome stands, but were designed to rise considerably above that level. These structures have not been sufficiently strong to resist the thrusts exercised upon them by the dome and pendentives, and at the three corners from which the plaster coating has been removed long fissures in the brickwork are exposed, that on the northeast being a gap varying from 7 inches to 10 inches in width.

It is at this northeast point that the immediate danger to the church lies. The pendentive behind has given way, and a portion of it has been thrust back to the extent of about 2 feet, while the haunch of the dome immediately above has become deflected to an alarming extent, the incrustation having fallen from the extreme projection by way of warning. Moisture also has searched its way through the pendentive. Some attempt has been made to plug the great fissure with brick and stone, but it is obvious that unless reparation of a drastic character is effected at this corner at once the stability of the structure cannot be guaranteed, for, failing here, as it certainly must do at no distant date, the equilibrium would be upset and the dome unquestionably fall.

If this great building, of incomparable beauty and unique historical associations, is to be preserved to posterity, then it is most desirable that some effort be made to induce the proper authorities to undertake its effective repair at once."

AN "Association for Public Service," based upon a possible cooperative effort on the part of architects in obtaining such public work as otherwise would be done by unqualified persons, has been discussed at length by the Southern California Chapter. A tentative constitution for such an organization has been prepared, but no definite action has been taken.

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COMPETITION FOR THE PLAN AND EQUIPMENT OF A MODEL KITCHEN

First Prize	$500	Four Mentions		Third Prize	$100
Second Prize	200	$25 Each		Fourth Prize	50

Competition Closes Thursday, November 4, 1920

PROGRAM

Object

This competition is being conducted by the Hoosier Manufacturing Company of Newcastle, Indiana, to encourage the study by architects and architectural draftsmen of labor-saving devices and economies in plan and equipment for the modern small-family kitchen. The acuteness of the servant problem has resulted generally in increased kitchen activities on the part of individual members of the family and in a better understanding by the mistress of the house of the possibilities of the kitchen as a place for making or saving extra steps, wasting or conserving energy, and economy or extravagance in the use of space. That a kitchen should be a laboratory—a really pleasant room to work in, convenient, sanitary, a place for everything and everything in its place—is becoming recognized in larger measure in all communities. The Hoosier Manufacturing Company, believing that a real demand exists for standardization of at least the essentials in good kitchen planning and equipment, hopes through this competition to bring to the problem the experience and professional skill of the architect and, with the suggestions thus obtained, expects to be able to submit to the public and the architectural profession data and practical suggestions for an up-to-the-minute model kitchen. It is therefore hoped that architects and architectural draftsmen will co-operate generally and cordially in making this competition a success to the end that it may be national in scope and representative of the best thought and skill of the profession.

The Problem

The problem involves the design of a fully equipped kitchen for a family of four or five without a servant.

The floor area, exclusive of alcove, if any, shall not exceed 144 square feet; at least one wall shall have unobstructed outside exposure; and not less than two nor more than three doors, exclusive of closet door, if any, shall be provided, one of which shall be the exterior entrance door.

The doors shall be so located as to establish the relationship of the kitchen to other parts of the house and the plan of the kitchen such that it may become an integral unit of a practical house plan, the parts of which immediately adjacent to the kitchen should be sufficiently indicated in outline and designated by name to determine definitely their relation to the kitchen.

For the purpose of this competition, the essential requirements for the kitchen equipment shall be taken to be a sink with drainboard or boards, a range, a refrigerator, and a kitchen cabinet. A table, either hinged, stationary or portable and provision for surplus kitchen storage are considered desirable. The proper disposition of essentials and the addition of such other conveniences as, in the opinion of the designer, are necessary to fully equip the small model kitchen, are left to his skill and ingenuity.

Indication may be made, if desired, of the flooring material, wall and ceiling finish, color scheme, and other finish details contemplated by the author's design, but this is not required. Size and type of windows contemplated should be clearly shown and the points of the compass indicated to show the direction from which the light is obtained.

Presentation

All drawings are to be made on one sheet 19 x 27 inches in size. Plain border lines are to be drawn so that the space within them shall measure 17 x 25 inches. Whatman or similar white paper is to be used. Tracing paper, tracing cloth or Bristol board are prohibited and no drawings are to be mounted. All drawings must be made with black ink, undiluted, and without color or wash. All figures and notations shall be plainly made so as to be clearly legible at a reduced scale. A graphic scale must be shown for each scale used.

Each drawing shall be titled where space is best suited, DESIGN FOR A SMALL-FAMILY MODEL KITCHEN as submitted in the HOOSIER MANUFACTURING COMPANY'S COMPETITION, and shall be accompanied by a plain sealed envelope containing the true name and address of the competitor within. No marks shall be placed on the drawings, envelope or package by which they could be identified.

Any competitor may submit more than one design, providing each is accompanied by a sealed envelope containing his name and address.

Drawings Required

On the single sheet above referred to the following drawings shall be grouped, each rendered in outline and to the required scale. The sectional areas of the floor plan shall be filled in solid with black ink.

(a) A kitchen floor plan drawn to a ½-inch scale showing the size and disposition of all equipment and with dimensions from plaster line to plaster line each way clearly indicated.

(b) An outline elevation of each of the four enclosing walls and such of the equipment, doors and windows as are incidental thereto, drawn to a ½-inch scale.

(c) A pen-and-ink perspective showing at least two-thirds of two adjacent and intersecting walls, one of which must include the kitchen cabinet. This perspective may be drawn to any scale which, in the designer's opinion, will best fit the space on the sheet and satisfy his sense of proportion.

(d) Additional sketches or notations which may be deemed necessary to illustrate or adequately interpret special features not otherwise clearly shown in plan or elevation will be permitted at the designer's option, though these are not required.

The Kitchen Essentials

For the sake of uniformity, the dimensions of the equipment hereinbefore referred to as essentials shall be as follows: sink, 20" x 30"; range, 24" x 46"; refrigerator, 23" x 38" for a maximum ice capacity of 100 pounds. The dimensions and arrangement of the kitchen cabinet are indicated in the accompanying isometric sketch. Additional data regarding the design and construction of this cabinet may be obtained by addressing the Hoosier Manufacturing Company, Newcastle, Indiana.

Professional Adviser

Herbert Foltz, F. A. I. A., 845 Lemcke Annex, Indianapolis, Indiana, has been retained by the Hoosier Manufacturing Company as its professional adviser in conducting the competition and any inquiries regarding its terms and conditions, interpretations of the program, or requests for extra copies of the program should be addressed to him.

Delivery of Drawings

The drawing is to be rolled in a tube to prevent creasing or crushing and, with the sealed envelope, forwarded prepaid to the Professional Adviser at the address above given. If sent by mail, the first-class postage rate is to apply as required by the postal regulations. All drawings must be forwarded in time to reach their destination on or before 5 P. M. of Thursday, November 4, 1920.

The drawings will be removed from their covers by the Professional Adviser, who will place a number upon each drawing and a corresponding number on the accompanying sealed envelope for proper identification. These envelopes will then be filed and not opened until after the awards have been made.

Judgment

The competition will be judged by a jury of five members, constituted as follows:

Mr. Frederick L. Ackerman, Architect, of New York.

Miss Alice Bradley, Principal of Miss Farmer's School of Cookery, Boston.

Mr. Edwin H. Brown, Architect, of Minneapolis.

Mrs. Ida Langerwisch, Superviser of Cooking in the Indianapolis Public Schools.

Mr. George W. Maher, Architect, of Chicago.

Each of the above has consented to serve on the Jury of Awards but the right is reserved to substitute others of equal qualifications in case of the disability of either or any for service when the jury meets.

The jury will make an award or awards to one or more of those taking part in the competition unless no design is submitted which fulfills the mandatory requirements of the program.

In making the awards, the jury will give consideration to the kitchen plan as an effective working unit; to the character and disposition of the several items of equipment and their relation each to the other; to the relation of the kitchen to other adjacent parts of a practical house plan; and to the skill and ingenuity displayed in the solution of the problem as a whole. The question of skilfulness in the execution of the drawings will not be considered, though neatness in their presentation is not to be disparaged. Drawings which are found not to conform in all respects to the conditions of the program will be eliminated from consideration by the jury.

The jury will make a full report which will include its reasons for the selection of the winning design and its reasons for the classification of the designs placed next in order of merit. A copy of this report, accompanied by the names of the prize winners, will be sent by the Professional Adviser to each competitor or announced in a magazine published in the interest of the architectural profession, promptly upon the announcement of the awards and the submission of the report.

Payment of Prizes

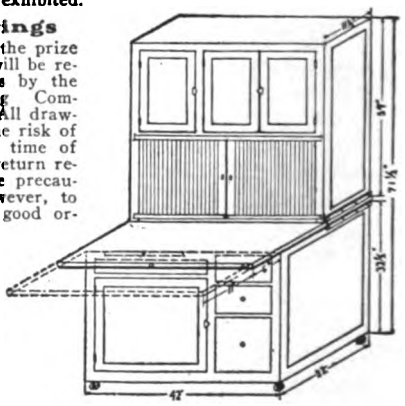
The Hoosier Manufacturing Company agrees that the jury above named has authority to make the awards, that its decisions shall be final, and that payment of the prizes to the respective winners will be made within ten days after judgment is rendered, on the following basis: First prize, $500; second prize, $200; third prize, $100; fourth prize, $50; for each of the four mentioned drawings, $25.

Use of Drawings

The prize and mention competition drawings are to become the property of the Hoosier Manufacturing Company and the right is reserved to use these in such manner as in its judgment may seem best without further obligation than the payment of the prizes to the authors. The right is also reserved to publish or exhibit any or all of the other drawings submitted in the competition. The name and address of the designer will be given in connection with each design so published or exhibited.

Return of Drawings

Drawings other than the prize and mention drawings will be returned to their authors by the Hoosier Manufacturing Company, postage prepaid. All drawings submitted are at the risk of their authors from the time of forwarding until their return receipt. Every reasonable precaution will be taken, however, to insure their return in good order.



Approval of Program

This program has been approved for the American Institute of Architects by the Illinois Chapter Committee on Competitions.

Supplement to the Journal of The American Institute of Architects, November, 1920

Housing and Community Planning

JOHN IRWIN BRIGHT, *Associate Editor*

This department of the JOURNAL is published from time to time in connection with the work of the Committee on Community Planning of the American Institute of Architects. The Committee, however, does not hold itself sponsor for matter appearing in these columns and contributed by other writers. It endeavors to present all interesting points of view and developments affecting the work with which the Committee is charged. In this instance it presents Professor Kern's very scholarly study as a remarkable piece of research work, and as a plan for a community based upon discarding the old theories and traditions which have heretofore governed urban growth. These traditions and theories were very largely the result of chance and of the operation of methods based entirely upon the rights of individuals to proceed with the development of land without regard to the welfare and the needs of the community. Some day it seems quite possible that new communities will be built and that they will be planned only after such research and study as that which Professor Kern has made. Indeed, there are unmistakable signs that mankind must resort to some new type of community if he is not to reach a point of congestion which will leave him in an absolute impasse.

If objection can be urged against Professor Kern's plan it would be only fair to point out that it makes no provision for setting up a balanced condition of agriculture and industry such as seems to be an absolute necessity in future community development.—THE EDITOR.

The New City

A PLANNED PHYSICAL EQUIPMENT

By ROBERT R. KERN* and CHARLES GESCHICKTER

Introduction

No serious attempt thoroughly to canvass the needs of a community of city life has ever been made. Nor has an earnest endeavor systematically to provide an equipment that would adequately serve these needs ever been undertaken. This lack of adequate and efficient equipment is felt by everyone interested in the welfare of our communities. The people in our cities live too far below their possibilities. Surely the physical equipment of our cities upon which the life for good or ill of so many people depends should not be left to mere chance, but should be deliberately and skillfully planned utilizing to this high end all our great resources in scientific knowledge.

CHAPTER I

A City Equipment

Adequate—Liberal—Scientific

The plan for a scientifically designed city here set forth represents a serious and deliberate attempt to apply our large store of scientific knowledge to the designing and furnishing of the city with the physical equipment needed by it adequately to support a wholesome city life. The plan is based upon a sociological canvass of city life in which the many needs of a community of people were subjected to a searching inquiry. The results thus garnered were carefully studied for the purpose of setting up the standards of services that should be required of a physical equipment scientifically planned to serve the needs of a city. It was necessary to set up these standards of service required for it was the purpose to provide anew for the needs of the people who lead a city life. Only in this way could a physical equipment be planned for the city that would adequately and efficiently serve such needs.

The services supplied to the city community by the scientific planning of its equipment are provided for not only adequately and efficiently, but liberally. The aim throughout the whole design has been to attain not an efficiency based upon a niggardly economy in equipment, but rather to design a physical plant for the city that will provide an optimum of services for wholesome community life.

*Professor of Economics and Sociology in the George Washington University.

The Polycentric System of Zoning

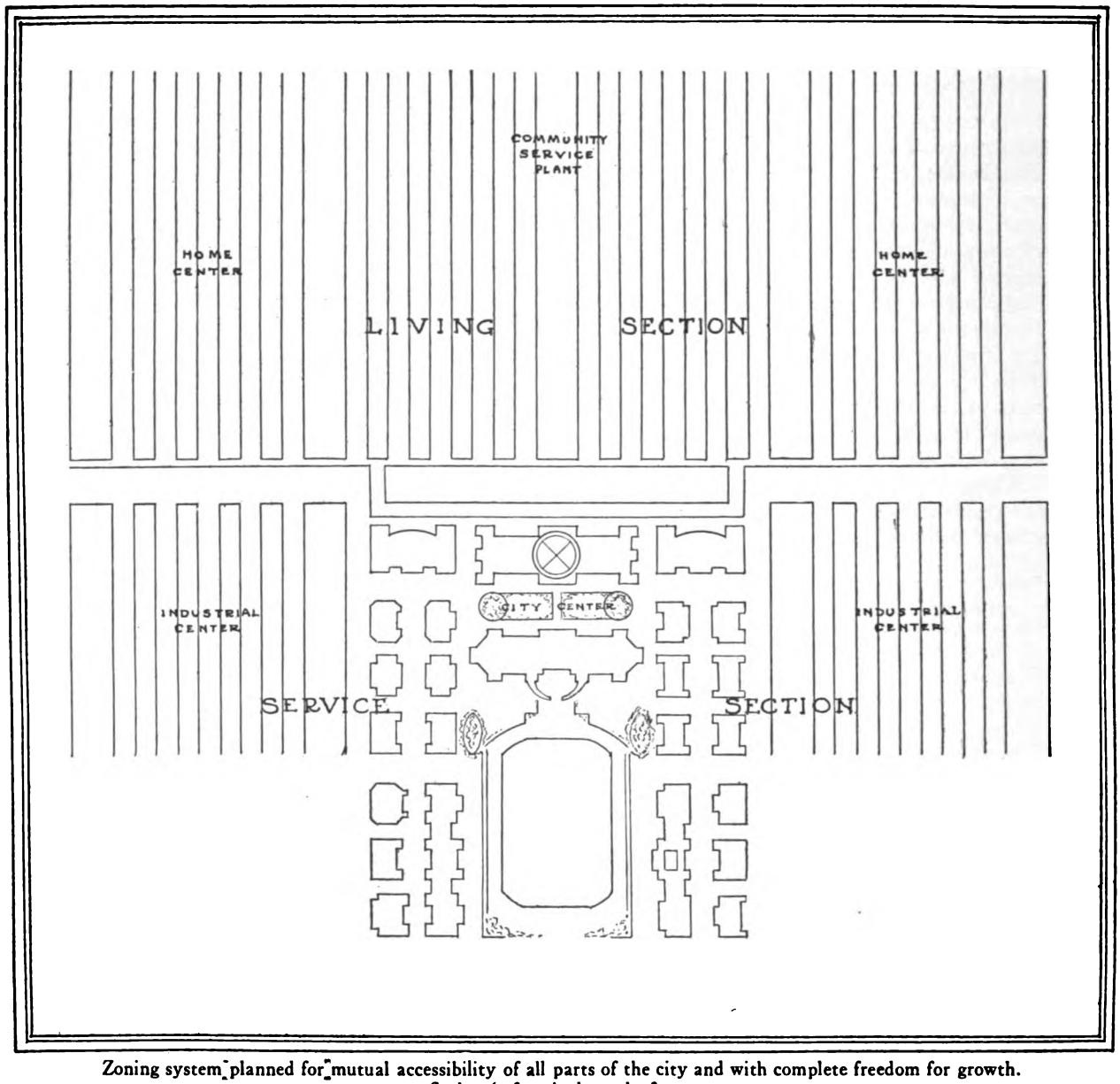
In order to secure from the physical equipment of the city more efficient services, this scientifically planned city is formed into a polycentric system of zones.

The entire city is divided into two halves by a broad avenue or esplanade running from east to west. Two major divisions of the city are thus formed, the living section and the municipal section. (See next page.)

The former is divided into minor zones or centers; one of these embraces the homes of the people, the other contains the social service equipment planned to serve the activities of the local neighborhood.

The latter is similarly divided into minor zones or centers. One of these is the down town or city center planned for the large public buildings of the city which are placed there in an orderly system of unit groups. The other is the industrial center composed of the warehouses, factories and commercial services needed for the city.

A principle of fundamental importance employed in designing the system of zones for the city is accessibility. Those buildings which serve local needs are grouped about such needs in local zones. On the other hand those build-



Zoning system planned for mutual accessibility of all parts of the city and with complete freedom for growth. Scale ½ of an inch to the foot.

ings and equipments which serve the entire city are grouped into zones so placed as to be readily accessible from all parts of the city.

Correlation of equipment was also a primary consideration in planning this polycentric system of zones. Each zone in this system contains only the specialized forms of buildings and equipments appropriate to it.

Ample provision for the growth of each zone of the city has been made by arranging the major divisions of the city so that each is free to grow in any of three directions. The living and the municipal sections, brought into contact with a city esplanade which acts as a boundary line between them, are mutually accessible with ample opportunity for growth. The municipal zone expands forward to the south and laterally to the east or to the west. It is estopped only on the north where the city esplanade marks it off from the residential area of the city. The living section of the city grows in the forward direction by extending toward the north. Lateral growth proceeds both to the east and to the west.

By this plan all parts of the city can expand freely to meet growing needs. The invasion of one zone by the equipment of another with the train of evils that follows upon such an intrusion is avoided, for each part can grow without the necessity of disrupting the equipment or tearing down the buildings of another section of the city. The industrial district, for example, placed thus in the system of zones can expand freely without forcing the new factories into the living section of the city where they would partly destroy this district, and mar its home life. In

fact the city is so planned that such evils can never arise to injure the efficient and harmonious arrangement of the parts of the physical plant of the city.

The Local Neighborhood Unit

Instead of being left to grow like Topsy, the all important home and neighborhood section should be planned with the utmost care. In the scientifically planned city this large area with its many localized activities has not been treated in one lump sum. The entire area devoted to living purposes is subdivided into smaller neighborhoods or local community units in order that the various local or neighborhood needs of city people may be served by adequate and accessible equipment especially designed for the needs of such local communities. The local units or neighborhoods embrace a community of about seven or eight thousand people. Their area is not so large that free social intercourse would be hampered, nor so small that adequate equipment could not be advantageously provided.

In each local unit or community the equipment is grouped in two different zones or centers, namely, the home center and the neighborhood center. The one group of buildings with their equipment serves the needs of the home life, the other group serves the needs of the local neighborhood. Each of the local community units thus embraces a residential center for the home life of the people, and a community center for their neighborhood life. The equipment provided here for the home life attains new standards in housing.

CHAPTER II

The City Domicile

Standards of Wholesome Housing

The domicile of city people should measure up to a definite and well considered scale of services for the home and the life which it shelters.

Safety is important; therefore the domicile should be well built and fireproof. Health demands that the domicile should be sanitary; therefore it is designed to be free from the nuisance of migrating rodents and vermin. To promote the intimacies of home life the domicile should insure privacy and seclusion; therefore it should be both sound-proof and sight-proof. It should afford free play for the life and activity of the family; therefore it should be ample and commodious and be so designed that it will receive to advantage the equipment and other interior furnishings for the family life. It should be bright and cheerful; therefore all rooms should be outside rooms. The home should have a pleasing vista; therefore every room in which the family lives should be a front room. Also every room should be so situated as to receive direct sunlight. The design permits of the attainment of all these high standards.

The home should be individual. The domicile should offer ample opportunity for the expression of individual taste and ideas; therefore it must be flexible in pattern and design. Our apartment houses and tenements are of fixed pattern. The arrangement of space and rooms cannot be modified to suit individual tastes. The domicile should not burden the family life, but should support it; therefore, it should not be difficult to keep in order, it should be easy to keep clean. It should be entirely freed from the nuisance of inpouring dust, soot and dirt from smoking chimneys and traffic laden streets. The home should be comfortable and refreshing; therefore, its air should be pure, fresh and invigorating. It should be warm during the wintry weather and comfortably cool during the hot days of summer. All of these standards of comfort are attained.

The domicile should be freed from intruding activities that mar the home ties, that injure the home, its beauty, its comfort and order. Community activities under pressure due to lack of adequate provisions for them, force their way into the homes of the people. This invasion of outside activities uproots the home life. The home should not be a dance hall, a bakery, a laundry, a club house or an amusement hall. All these economic and community activities are necessary and should be provided for, but they call for appropriate and special forms of equipment that should be placed elsewhere than in the home.

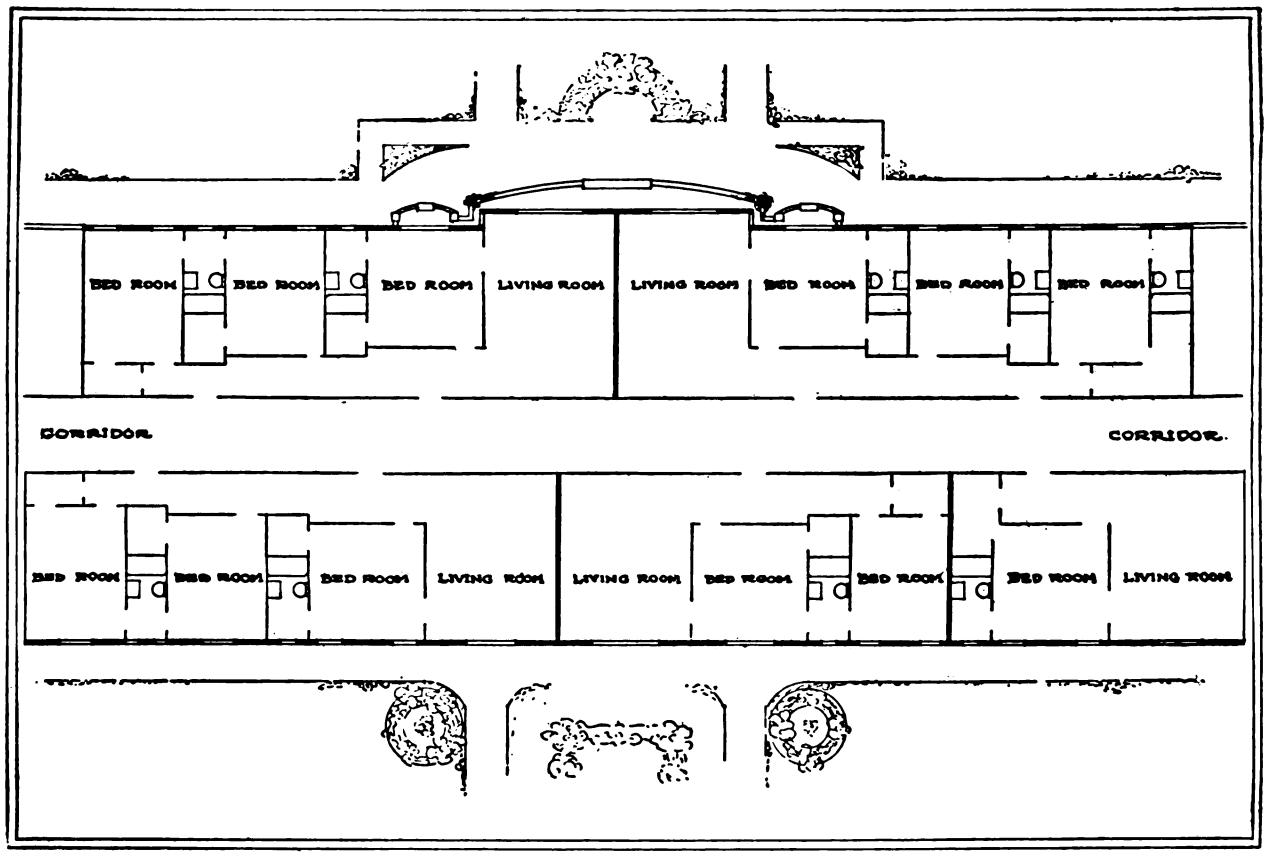
The home should be a bower of cheer, comfort and quiet, therefore, it must not be exposed to the nerve racking noises and the hubbub of our city streets. Nor should the air of the home be the foul and odorous breath of the city thoroughfares, roofless stables and garages that they are. The home must have an entirely different setting. It should have a setting of shrubbery, of growing grass edged with flowers, and playing fountains. It should look out upon a scene of beauty, peace and quiet.

The Passing of the Isolated House, the Tenement Row and the Apartment House.

This is indeed a formidable array of standards, yet each one of them is reasonable and important and the failure to realize any one of them would be a serious drawback to the efficiency of a scientifically planned equipment. These standards of service with all the importance that they carry for the home life of city people can actually be attained. All that is necessary is to come to the conviction of their importance. This will bring about a new situation in the housing problem, for heretofore such standards have simply not been considered. It means that the controlling ideas guiding the development of the design of the domicile must shift from familiarity of pattern to standards of service that are to be achieved. It is beyond possibility to attain these standards amidst the sprawling, unsightly confusion of streets, alleys, tenements, houses and stores that make up the major portion of the residential sections of our cities. We must start free from these incumbrances with a clean slate and a clean design.

The Resiance

Instead of the unsatisfactory isolated house, the two story tenement row, or the apartment house as the domicile for the home life, the design calls for a great resiance. This is a structure substantially built and fireproof. The resiance is bifurcated by a central corridor and the living suites, distributed upon either side of it, are reached by means of this central hall. The linear design of the resiance achieves the high standard which requires that every room in the home suites be an outside room. Since the resiance is designed to have no rear or deep sides every room may be a front room.



Suggested floor plan for home suites in the resiance. All rooms face front. Scale 1/20 of an inch to the foot.

The Home Suites

The pictures shown give some suggestions for the distribution of space and the arrangements of rooms in these home suites. These suggestions are presented to give an idea of the adaptability of the resiance in affording opportunity for individuality of taste in the arrangement of rooms for the home suites. The arrangements may be varied almost at will. Those who would wish even a duplex arrangement may have a living suite to suit their taste. Indeed, so flexible is the interior of the resiance that rooms of even monumental proportions, if the need for such rooms should arise, may be worked into it. The provisions and distribution of space for the home suites permits of a varied grouping of rooms so that individual effects and many pleasing vistas in the home suites may be secured. These arrangements are such that every room may be reached either from an adjoining room or independently without the need of passing undesirably through another room.

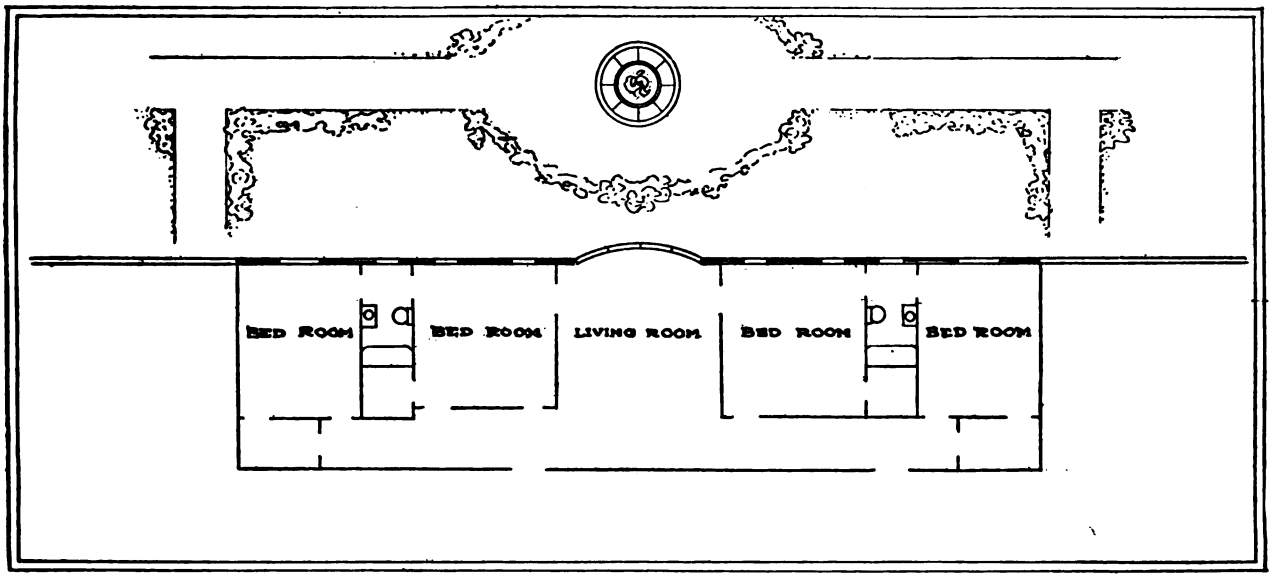
The scale of dimensions permits of unusually commodious rooms as will be observed. The proportions and shapeliness of these rooms are not disfigured by the faulty placing of the beams and columns which support the structure, and the necessary doors and openings are so designed that they do not mar the wall space or hamper arrangements of furniture in the rooms. These features secure for the living suites the appointments so essential to convenient and pleasing effects in interior furnishing and design and offer ample opportunity for gratifying individual taste and ideas in the decoration of each home suite.

The Obsolete City Block

The lineated design for the resiance has other advantages which permit the high standards of domiciling that have been set up to be achieved. Since the resiance is not forced to take the chance shapes of the lots and angles of city blocks, it is unnecessry to construct in the buildings where people live so-called light wells or air shafts with their dark windows opening directly into each other. Nor are we forced to have irregular structures with deep wings or ells in which half lighted windows look against dingy brick walls or stare into the windows of another home. The family life is too exposed under such conditions. Cherished privacy and seclusion for the home is denied in these misshapened structures. The resiance is designed to avoid these evils. It is practically sight-proof, hence these intrusions are eliminated. This, together with its features of sound-proofness, enables the family life and activities to be sheltered in a home that has the much desired attributes of privacy and seclusion.

The Baldric Plan of Sunshine Homes

The solution of the problem of sun lighting the resiance called for a departure in housing design. Dark, cheerless rooms in the home must be a thing of the past. Such unhealthful conditions must not persist. The homes of city



Suggested arrangement for five room suite. Scale 1/20 of an inch to the foot.

people should be bright and cheerful and none of them should be denied the wholesome effects of direct sunshine. Therefore the resiance which shelters the home life should be "a trap to catch sunbeams." The resiances are planned so that every room in the home suites receives its share of direct sunlight. The lineated design with the avenues of resiances running only north and south solves the problem of sun lighting the resiances and measures up to the high standard, the sunshine home.

In this baldric plan there are no rooms facing north. The windows of the resiances open either to the east or to the west. Not only are all rooms brightened with direct sunlight, but this plan gives as nearly as possible an equal distribution of sunlight among all the home suites. By this plan all parts of the resiances are bathed with sunshine. The sun rises in the east giving direct sunlight to all the rooms in the east facing facades of the resiances. Then when the sun swings around to the south it floods the entire courts and resiances with sunshine. In the afternoon the rooms of the western facades are in turn bathed with the direct sunshine. Thus this baldric plan of resiances achieves the high standard of a sunshine community. By this plan every room of the living suites in the resiances is made a bright and wholesome front room and the attractiveness of these rooms is enhanced for they all command a pleasing vista.

Exit the City Street

This plan of linear resiances changes entirely the character of the residential section of the city for it permits the removal of all the streets and alleys from the living section of the city. These ugly unhomelike thoroughfares with their confusion and noisy traffic no longer mar the home life of city people. In their place are quiet, beautiful courts with grass and flowers, and promenades and playing fountains. The landscape gardening in these courts may be developed to suit the varied tastes of each of the local communities and in this manner much interesting variety in beautiful vistas along the courts may be secured.

The avenues of resiances face these lovely courts an since all the rooms occupied by the families in them are fron rooms, their windows look out upon these vistas, in great contrast to the depressing outlooks over the unsightly roofs and chimneys of our commercial cities or the views of alleys and backyards with their ugly rows of fences and sheds. The noise, odors, dirt and dangers of the streets are removed by these courts and in their place are security, quiet, peace and the fragrance of flowers.

The facades of the resiances, a matter of public interest, afford, because of their monumental proportions, architectural possibilities in design and decoration not thought of heretofore.

Resiance Conveniences

These great resiances are equipped with many conveniences for the families who dwell in their comfortable living suites. Telephone and electric service, electric clock service, water service, parcel and mail servidors, elevator service, storage service and a vacuum cleaning system are among the conveniences provided for every home suite.

The Arcades

The resiances are divided at convenient intervals to form sections. These sections may be approximately 200 to 250 feet long. The space at the points of division between these sections is utilized by the stairways, the servidors, the elevator halls and the elevator service. At the landing of the stairways and elevators on the first floor there are short cross halls or arcades that connect with the courts and walks on either side of the resiance. It is by means of these short cross corridors or arcades that one may either reach the central corridors and the stairs and elevators there, or pass through the resiances to go from one court or resiance to another.

The Service Floor

Looking along the lower portion of the resiances it may be noted that the first floors are elevated a few feet above

the ground level of the courts. By this plan there is secured under the first floor a ground floor which has both light and fresh air. This ground floor extends continuously without obstruction under the full length of each avenue of resiances. In this continuous open space there runs a gallery which holds the wires, water and waste pipes, from which all the homes in the upper floors of the resiances may be served with water, electricity, telephone and so on. All pipes and wires are thus always readily accessible and open to inspection at any time; they may be extended, removed or repaired without the necessity of damaging buildings or digging up side-walks, street pavements, or lawns and shrubbery.

This continuous light and airy space also provides a desirable lane for light traffic, which, running under the full length of the avenues of resiances, will accommodate a convenient light electric truck service to the living quarters. Mail and parcels thus may be delivered to the stations or servidors for the homes above, and trunks and furniture may be moved to or from the home suites. This necessary light traffic service is thus quietly tucked away out of sight leaving the courts between the avenues of resiances free of all traffic so that they may be devoted to promenades and landscape gradening effects. This quiet, hidden system of lanes is also a safety device for here these light traffic lanes cross no other lanes, promenades, or other means of intercourse. Dangerous crossings and interceptions are eliminated throughout in this scientific plan.

The Roof Gardens

Turning now to the upper portion of the resiances, the picture of these avenues of resiances shows that the design affords a continuous roof space high up in the fresh air.

This convenient expanse offers a splendid opportunity for extended roof gardens and promenades. The families living in the home suites of these resiances may walk through the courts amid flowers, grass, and banks of shrubbery, or they may use the promenades along the extended roof gardens and enjoy the views, the light and the fresh air.

These great resiances with their cheerful, commodious, and comfortable home suites supplied with tempered, fresh, clean, wholesome air and breathing an atmosphere of peace, quiet and beauty should be a place of contentment, in so far as physical equipment and conveniences can be conducive to pleasantness, security and ease. When one turns his mind from this home district, lovely and serene, to our cramped apartments and congested tenements surrounded with noisy and dangerous traffic laden streets, these avenues of beautiful resiances, surrounded by courts with their stretches of grass, edged with flowers and outlined with banks of shrubbery, may seem to transcend our industrial powers of production. They, however, do not when we bring to bear upon their construction our highest technological information. All that is needed is an appreciation of such standards of domiciling, and the conviction of the need and desirableness of these standards of living.

CHAPTER III

Providing for Community Social Life

The Neighborhood Unit

The living section of the city, as previously mentioned, is conveniently subdivided into neighborhoods or local community units. Each of these embraces an area about twelve hundred feet long by six hundred feet wide. This provides for a unit composed of four avenues of resiances with their courts and a parallel avenue devoted to a community center plant. The families dwelling in these local units comprise a neighborhood of approximately seven thousand people. These neighborhood groups are each served by a social service plant. The structure which houses this social service equipment is also of linear design to correspond with the design of the resiances. It forms an avenue itself serving the two avenues of resiances that parallel it on either side. Thus the many services it renders to the the local community are brought into immediate accessibility to all the homes in the local neighborhood. This plan for the living section of the city which subdivides it into local community units, with its scheme of resiances and a community service plant for each of these local units achieves a standard and an accessibility of services to each local neighborhood group impossible in the unplanned residential areas of our cities.

As the living section of the city expands this accessibility is retained by employing the unit system of growth. Growth proceeds by the addition of local units in a forward direction or laterally to the east or west of the local units of the living section already built.

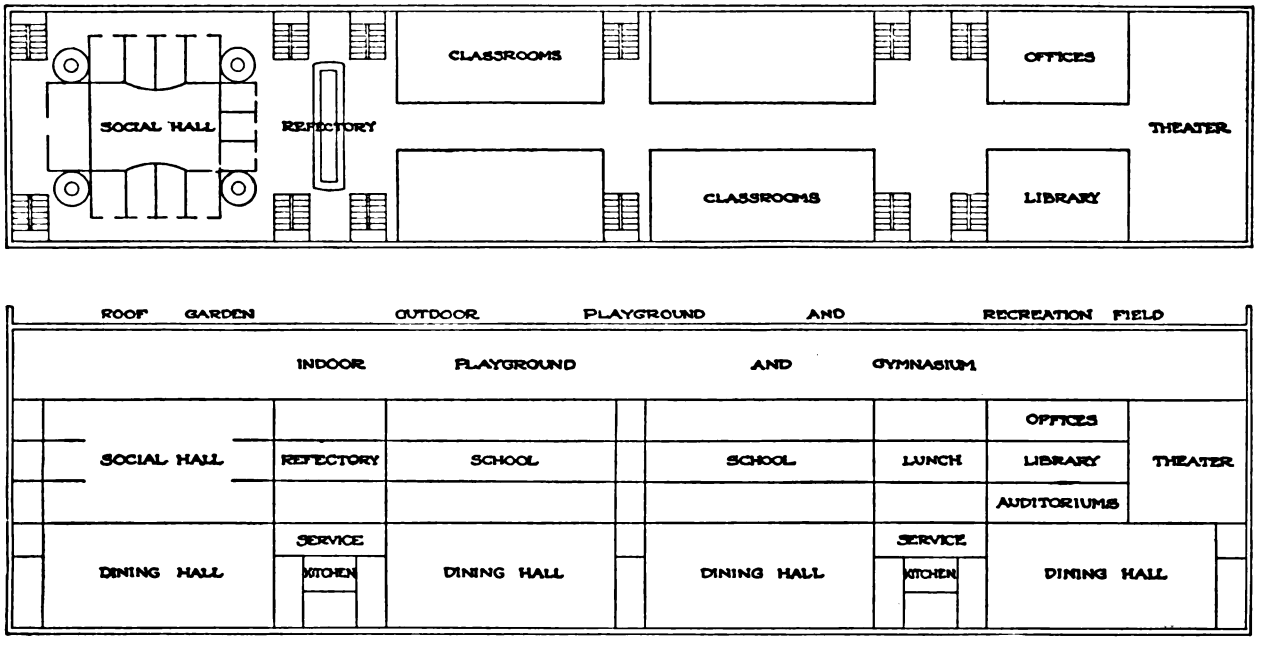
The Social Service Plant

A separate plant apart from the home but immediately accessible to it has been designed to house all the various facilities and equipments needed to serve the overflow neighborhood activities. The sectional view of the community center plant gives an idea of the varied equipment incorporated therein.

Beginning at the left of the sectional view of the community center plant there is incorporated in the first division of this great plant a theater or auditorium, conveniently connected with the schools by the large corridor running through the great social center structure, and serving not only as a place of entertainment for the local community, but also for the grade and the high schools as a place for school assemblies. This convenient multiple usage obviates the cost of maintaining a separate auditorium for the schools which would remain largely idle.

There is also placed in this section the local or branch library with its book stacks and reading room. This library is designed to serve not only the adults of the local community but also the children at the schools, with which it is quite conveniently connected by a large hall. With reference books and other literature so readily accessible much of the time now wasted in going to and from our usually remote libraries may be saved. Books conveniently at hand are likely to be used more freely.

In this section of the community center plant office space is provided for the use of the various local officers, secretaries and so on. Lavatories and emergency rooms and a series of smaller halls or auditoriums are also incorporated into this section of the plant, for use by local dramatic clubs, community forums, choral societies, clubs, orchestras, and for artists' coffee rooms. They also may be used for moving pictures and other local amusements. Certain of these auditoriums, to suit the wishes of the neighborhood, may be set apart for local religious purposes.



Suggested arrangement for community service plant. Containing equipment for all local community activities. Each living section in the city has a similar service plant. Scale 1/20 of an inch to the foot.

Part of the space between this section and the school section is utilized by a convenient refectory and lunch counter for the use of the school children.

Following along on the same floor levels the next two sections of the community plant are given over to classrooms for the grade and high schools. These schools are admirably provided with play grounds. The sectional view shows the entire unobstructed top floor of the community plant, twelve hundred feet long, which is devoted to a gymnasium and recreation center. This play ground can be used in all weather as it is protected. Above this, upon the high expansive roof there is an out-door playground, recreation field, roof garden, and promenade.

Both of these features of the community service plant do double duty. They provide the schools with a convenient playground. After school hours they supply the families of the neighborhood with a supervised recreation ground for the children. They also serve the local community as a neighborhood recreational center for the adults. These recreational centers, fitted in this manner into the plan of the local neighborhood units are a great social asset to community living, and thus incorporated, they also act as a safety device. Children do not have to cross any dangerous thoroughfares going to and fro, and while in these supervised recreational centers they are safeguarded at their play.

The Social Hall

In the fourth and last section of the community service plant there is incorporated a great social hall and club room, somewhat novel in design. Its purpose is to provide ample and satisfactory facilities for the various forms of social life that take place in the neighborhood. The first floor in a great open area. Above this there are two balconies running around the four sides of a large open court, and divided into rooms designed to give the effect of boxes overlooking the court and main floor. These rooms or boxes are suited to be the gathering place for friends who may come together here to spend an evening. They are also designed so that parties may be held in them by young people, who, when they wish to vary their pleasure, may go down to the main floor and dance, for the hall is equipped with an organ and a dais for an orchestra. There are large spaces set apart at either end of this great hall suitable for an attractive lounge, social parlor and club room.

This social hall supplies an especially equipped plant designed to serve the neighborhood social life to advantage. By this means the home is freed for family life—the more intimate forms of social intercourse in the family circle and between friends. The order and privacy of the home will remain undisturbed and the wear and tear upon the home furnishings will be spared if people wish to make use of the more adequate and specially designed equipment provided in the social hall. With such a social service plant at hand the family life need not be disrupted by the intrusion into the home of such neighborhood interests and activities. This social hall, with its serviceable equipment offers a fine opportunity for the growth of much needed, newer and better customs in community social intercourse.

Between the social hall and the school section there is interposed a lunch room and refectory. This equipment is designed for multiple usage. At noon it will serve as a lunch room for the school children; in the evening it will serve as a refectory supplying refreshments to those enjoying themselves in the social hall or club rooms. These lunch rooms and refectories are so placed that they have direct connection with the kitchen.

The Dining Services

On the first floor of the community service plant the family dining halls are placed. They are put here to give

them the highest degree of accessibility. They may be reached directly without the use of either stairs or elevators.

The services rendered by these dining halls are quite varied in character being well adapted to suit the differences in opinion and taste among people in such matters. First there is the large type of dining hall, a spacious room of monumental proportions, where many guests are seated, and where music of an organ or an orchestra may be enjoyed. The tables are served by concealed electric pneumatic trolleys. Since this service is invisible and operates smoothly and quietly in its concealed channel, the hall is freed from the confusion and noise of rattling dishes and hurrying waiters. This electric service is also more expeditious. There is no delay in getting orders to the service rooms and kitchens, and when quickly filled there with the aid of skillfully designed appliances, the order is quietly, swiftly and privately brought to the table.

After all, a dining hall is a place in which to eat, to enjoy social intercourse while eating, and further to have these enjoyable human activities enhanced by pleasing surroundings that greet the eye and the ear. These dining halls measure up to such standards in an unusual degree, for the mechanical aids to dining hall service do not intrude themselves as they do now in even the quiet acceptable dining rooms of our commercial cities. These dining halls transcend them in dimensions, in guests served, in specialized equipment and therefore surpass in quality of service and also in that important consideration, moderation of cost of dining in such an agreeable manner.

But tastes differ. Some people prefer more privacy when enjoying the family meal. A part of the hall is so designed as to afford private dining apartments. Here the family may eat in complete privacy and yet be able to enjoy the spacious beauty of the hall and the music. To have the family meal in privacy and at the same time to enjoy such surroundings further illustrates the advantages of the scientific planning of community living over the struggle for life amid the uncontrolled pressures of our confused commercial cities.

A further variety of dining service is provided. Some persons wish to eat the family meal in privacy, and prefer a small isolated dining room. The dining service of the local community plant is so designed that even such a service may be supplied to those desiring it.

This plant renders, then, three distinct types of dining service. First, the small private isolated dining room. Second, the spacious dining hall with music, lights, high ceilings, great windows, and an atmosphere of sociableness. Third, the reserved dining apartment so designed that privacy for the family meal may be had and yet the environment and spaciousness of the hall be enjoyed.

Planning A System of Kitchens

This dining service is supplied not from a community kitchen, which could not attain a sufficiently high standard of efficient service, but from a large *system* of carefully planned kitchens. First in order are the service rooms and service kitchens, the former connecting with the dining halls and serving as a link between these halls and the service kitchens. These latter are in turn connected with a system of specialty kitchens equipped with large scale labor saving devices and lend themselves to many other factory efficiency methods. These specialty kitchens are, therefore, located not in the community service plants, but appropriately in the industrial section of the city, and consist of large bakeries, preserving kitchens, soup stock kitchens, dehydrating and canning kitchens and other specialized kitchens such as those for preparing meats, breakfast foods, and so on. All are linked with a system of storage plants in which the various raw food materials are stored.

This great system of kitchens and bakeries displacing the necessarily underequipped home kitchen, the apartment house kitchenette and the small scale and hence inadequately equipped kitchen of the lunch rooms and restaurants, offers an opportunity, because of the scale and specialization of service, to take full advantage of scientific methods in the baking, preserving, and cooking of food. Because of the scale of this service individual tastes may be catered to in a varied and satisfying manner. No isolated community kitchen, restaurant or home kitchen compares favorably in efficiency with this skillfully planned system of interlocking specialty kitchens operating on such a large scale.

Facilities for Child Life

The first floor of the community center plant projects on either side beyond the line of the upper floors. This projection provides on the first floor level, large, safe, well lighted accessible rooms admirably adapted for use as a kindergarten, a nursery and a children's dining room. These kindergartens and nurseries are most favorably situated. They are reached without the use of stairs or elevators. Here the children may be brought and conveniently reached by their parents, when going in and out of the dining halls or to and from their homes. Their playground is safely out of the way and conveniently linked with the nursery and the kindergarten. In their own little dining rooms the children may be served the especially prepared food that they require to grow and be healthful. They will be under the care of a specially trained staff and will have plenty to do. These much needed conveniences will aid the parents in raising their children in a safe, happy and healthful way.

The community service plant is the center of life for each local neighborhood. The local community is organized about it. The activities of the home overflow into it to take advantage of and enjoy the many services rendered by its liberal equipment. These services are all immediately at hand for the social service plant is only a few feet from the homes in the two avenues of resiances on either side of it. These social service plants distributed in this systematic manner throughout the entire living section of the city with the local neighborhoods organized about them have the possibility of proving to be of immeasurable value to city life.

Additional copies of this pamphlet may be had from the Journal of the American Institute of Architects, 320 Fifth Avenue, New York City. Price 25 cents each

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Shadows and Straws

ARCHITECTURE is an art; its practice is a profession. Building is a business; its practice is an industry, involving many trades and industries.

One might easily dispute these definitions for there is no final definition of anything. But they are fairly accurately descriptive and will serve in this instance.

Once architecture and building were the same. Building was almost a universal outlet for the creative impulse of man. The story of architecture, read in this light, shows man to have been once a reasoning being; we even get a glimpse of what we call his divinity.

The shelter he contrived for himself was an intimate handiwork fashioned in accord with the simple natural laws that he gradually learned by the process of trial and error. The greater structures that he reared in reverence and adoration, as in Greece and in the Middle Ages, were the outpourings of such a spiritual impulse toward beauty as we can hardly imagine, as we survey those works from our modern world of business for profit.

Building was an art, although no one called it that. Architecture is only the later name given to those structures which survived, and now borne by the small fragment of modern building (computed in structural volume), wherein a few men seek to emulate the beauty of a past which was concerned primarily with shelter, with good workmanship, without profit, and of which what we now call art was in reality a by-product.

But the point is this. Architecture the art has nothing to do with profits. Architecture stands for good buildings, wisely planned, enduringly built, and designed to make life more beautiful, not more ugly. The remnants of architecture that have come down as our inheritance were built on that basis. They had nothing to do with any struggle for profits. They did not require advertising and propaganda in order to get themselves built.

BUILDING—THE BUSINESS, is today based on the profit system. No profits, no buildings. Worse than that, even with profits there is very likely to be but little or no architecture. If it is urged that we have more good buildings than formerly, the assertion becomes very doubtful if comparison is made in volume of buildings erected. And it is only by volume that the question can be examined. Indeed, most critical factor of all, just now, building volume itself has seriously declined, quite aside from any question of esthetics.

For years, we have listened to the plaints of the esthetic group. To them, architecture the art, was in a bad way. The good old times were gone. No one longer cared for beauty in a building. The "commercialism" of the day, as they called it, had put its smear over the art of building. Without even taking time to learn something about the "commercialism" they reviled, and the law of its nature, they proposed to change things by "educating the public," by adding "Fine Arts" courses to schools and colleges, by stimulating an appreciation of architecture in a thousand efforts called educational. They quite overlooked the fact that under the present economic system only a fortunate few could buy what they wished to sell. The present housing impasse is a very glaring illustration of this.

The materialistic group said little. They believed that architecture was a business like everything else. That you had to play the game, give people what they wanted, perfect the service of the office, and get as much architecture into the job as could incidentally be smuggled in without making the owner ask awkward questions about cost. They seemed to see nothing very much the matter with the building business and went their profitable way in silence with occasional sardonic smiles at the efforts and lamentations of the esthetes.

Today, both esthetes and materialists find themselves in close company. The building industry, as a going machine, has been in a bad way for some

time. At present, it has almost ceased to function. It has been discovered, pretty widely, that those who control the supply of credit are those who dictate how much and what kind of building there shall be. They have been dictating for a long time, but the extent of their power, as revealed in that derided "commercialism" which more and more interfered with architecture, escaped recognition. Some day the world will understand credit, its origin, its nature, its functions, its dangers when operated for private profit, and then much that now seems obscure in architectural progress will become clear.

The housing problem has opened many eyes to the fact that architecture the art, and even building the business, are absolutely helpless to offer the solution which they are capable of supplying if they were able to function according to the law of their nature.

THESE THINGS went through many minds, no doubt, at the conference of the building industry held in Chicago on September 27th last, too late to be reported in the October JOURNAL. It seemed pathetic that fifty men, more or less, all skilled in their respective callings, appeared unable to be frank and to go straight to the heart of the question at issue. The conference was called, as has been explained in these columns, to take action on the resolution adopted at the preliminary conference at Atlantic City in August. There it was resolved that a Congress of the Building Industry should be formed to make a thorough study of the building industry, and that the Chicago conference should find ways and means for carrying out the proposal.

But not once at Chicago was there any reference to profits, or land, or credit—except that it was to credit that the conferees mostly bowed down and worshipped. They even decided to make banking and bankers a part of the Building Industry, for, as they expressed it, "we are helpless without them"—an admission, the significance of which they failed to perceive. Or was it that they feared to admit what is the literal truth, that the building industry practically has been taken over, lock, stock, and barrel, by financial business?

This must not be construed as an indictment of any persons. It is nothing of the kind. The curse of the present moment is that all efforts to develop a philosophy of any industry or industrial condition are quickly made personal issues. But there are no personal issues in the building industry. There are only principles, and they will have to be recognized and dealt with willy nilly. To talk of "harmonizing," of "cooperating," of "service,"—three words which are particularly used as vents for those emotional stirrings which visit small minds—under the expectation that any of those things can be attained without upsetting the present method of distributing the profits of the building industry, is a form of childishness hard to reconcile with the mature minds possessed by eminent technicians. But the subject of profits was as carefully avoided as though it were a phial of assafoetida.

ARCHITECTS, engineers, contractors, manufacturers, labor leaders—all gave it a wide berth. Why?

The answer of course is that they were afraid. It has been said that they were ignorant, but how can such ignorance prevail among men who have spent their life in the toils of the profit-making system? Is there any one who has not been up against the wall of profits over and over again? Who has not seen building after building cheapened, stultified, often abandoned, because of the law of profits? Yet the senseless adoration continues, the dreadful fear dominates. What a pity!

Is it impossible to discuss the theory of the profit-making system as applied to architecture and building? The Committee on Scientific Management and Reduction of Costs of the Building Trade Parliament of England discussed it. Other industries are examining it. Men are talking about it everywhere. And any Conference or Congress of the Building Industry which refuses to grapple with this question might just as well not convene. Its members will be wasting their time and their money.

It will be a thousand pities if architects do not come to the rescue in this impasse, They have the vision. They have the skill. They are enlisted in a great calling. The world has dire need of their services. Yet they cannot but know in their hearts how little of their vision and their skill can today be made available to mankind. But in the sacred name of Architecture, let them turn, if only for a moment, from their effort to educate the public and stimulate an appreciation of art, and put their professionally trained minds to the real heart of the problem. Let them be unafraid to dissect and analyze, to explore and discover. Only the truth can help architecture. Only courage will get at the truth.

FOR THE ELABORATE program set forth by the Council of the Associated Building Trades of Philadelphia, in which are proposed many useful activities, the same things are to be said. And the same is equally true, with the one exception of a proposed tax to prevent building sites from being held out of use, of the resolutions taken at the First Pan-American Congress of Architects, recorded in this issue. Let such bodies get down to the heart of the question. Let them examine the disease that has brought building to its present situation. Let them cease dealing with palliatives, plasters, and platitudes, and set themselves the task of discovering how, under the present system of profits, and the

present system of distributing them, there can be created any solidarity in any industry.

Perhaps there cannot be any great change effected. Perhaps we are committed inexorably to the present state of things. Perhaps it is the best that man can devise. But perhaps it is not. Perhaps a better state of society can be brought into being. The fact that effort is directed toward that end indicates that there are those who think that the knowledge and skill now possessed by the building industry as a whole might be given in the service of sheltering the various activities of man—for shelter is the chief function of architecture, when all is said and done. If all this knowledge and skill could be released, the world could have an architectural development the like of which it has never seen. There is a bountiful supply at hand and waiting. Today it is going to waste. Worse than that, it is leaving a decreasing seed behind it. Craftmanship has all but disappeared. There is nothing but a fragment left.

To many there seems no solution of the problems of either architecture—the art, or building—the business, until the industry as a whole resumes control. This it can only do by creating its own independent supply of credit through its own cooperative banking system. Then, with a changed order in land use and tenure, it can fulfill the function for which it exists. There may be other ways out. There are other factors to be considered such as training the workers and eliminating at least every undue profit, for profits will still obtain for some time to come. Eventually, they will disappear. They will be recognized, in the Human Age that is coming, as the barbarous practice of The Industrial Machine Age. Architects, it is your opportunity; the fate of architecture, and of more than that, hangs in the balance. Write to Sullivan W. Jones, Secretary pro tem of the Congress of the Building Industry, and ask him what to do.

C. H. W.

Housing In New York

THE SPECIAL SESSION OF THE NEW YORK STATE LEGISLATURE

By FREDERICK L. ACKERMAN

The Proposals Before the Legislature

TWO years of discussion arising out of a shortage of houses, soaring rents and the dismal failure of private enterprise to build houses, furnished a curious setting for the work of the Special Session of the New York State Legislature called by a hopefulGovernor. For during these two years of animated discussion there had gradually emerged, as a result of numerous surveys, endless hearings, conferences and reports, a body of proposals sufficiently well defined to focus debate.

A study of this body of proposals discloses some interesting things: It was assumed that the objective could be reached by following two paths leading in opposite directions, so to speak. By this it is not to be taken that there was a clean cut line-up of opposing forces composed of the advocates of two distinct policies. As a matter of fact many of the programs submitted by groups or by individuals followed both paths.

Public Help *vs.* Self-Help

On the one hand there were the various plans aimed at preventing landlords from increasing rent beyond such an amount as would be looked upon with favor by the courts; and falling within this general category were other proposals placing upon the landlord—the owner of property, a fairly long list of restrictions. Obviously all such proposals are to be viewed as a partial disallowance of the rights of ownership as the same have come to be (tentatively) established by law and custom. Tentative, in this case, meaning a couple of centuries more or less. This group of proposals is also to be viewed as a denial of those principles, spoken of as self-help, equal opportunity and free bargaining, which we (tentatively) hold so dear.

Subventions

On the other hand there was a considerable group of proposals having as objective the stimulation of private interprise engaged in the erection of building for a profit, by resort to subventions of one sort and another. Certain charges, which now fall upon vested wealth, either as taxes upon property or the income derived from the same, were to be canceled in the case of new housing ventures.

This latter group of proposals may be said to support the rights of ownership in that they grant differentials to the absentee owners of property of this class. But in standing to support the rights of ownership and the financial system based thereon, they obviously stand as evidence of the failure of that system to produce and deliver under the rules of self-help, equal opportunity, and free bargaining.

No doubt this will appear as a summary way of disposing of all the labor that went into the surveys, the reports and the monumental mass of published talk about it. Of course there were shades of opinion

and many proposals which would hardly lend themselves to this rough and ready division into the two categories noted above, but when all is said and done this description of the state of opinion prior to the calling of the Special Session serves accurately enough to indicate the degree of confusion under which the Legislators of the Special Session went to their task of doing something to relieve the situation and stop the noise.

What the Bankers Said

To this broad generalization as regards the state of opinion there is perhaps a single exception which is worth noting. Just prior to the opening of the session there appeared in the press a statement issued by the Savings Bank Section of the American Bankers Association in which the more important of the then formulated proposals were analyzed and discussed. One by one these proposals went by the boards in the course of the discussion; not one was deemed worthy of favorable mention; and nothing—not even a straw was thrown out to catch hold of.

At first glance this might shock a sensitive person. A representative group of bankers, acting as stewards of the peoples savings, comes right out in the face of this crisis and says that there is really nothing to be done in the case, since the proposals would upset financial business. But this statement should not shock anyone. Those who know that the common welfare, under the working of the present system of financial business is a matter which hangs upon the question of profit in terms of price, fully understand that, from the standpoint of banking, there was nothing to be done about the matter.

Financial business is impersonal—it looks out upon a world of men in trouble; it makes note of evictions and the conditions that rents are higher than the average man can pay; and financial business goes back to its financial business. How men live—the common welfare—is not a matter which may stand in the way of profit taking. If profits are not to be had in the building of houses, then it is plain enough that people must do without houses. All forms of restrictive legislation were certain to limit profits; and subventions, while appealing, were likely to upset the market; there was simply nothing to be done about it.

The Legislator and The Dilemma

But to return to the course of the statement. Before considering what was actually done at the Special Session surely a word is in place concerning the position of a Legislator in the face of the forces acting upon him. There can be no doubt that he approached his work with some little hesitation. Being led to his seat, and then told to do something about this matter when what is be done had already been formulated by others as action moving in opposite directions was the same as saying to him—go face a dilemma.

It was clearly a case of passing legislation which would be for and at the same time against the profit system. He had to stand for and at the same time he had to deny the rights of ownership. And he had to uphold the principles of self-help, equal opportunity, and free bargaining, say with his right hand, while with his left he cast his vote for measures which would stand as evidence that these principles were not workable under twentieth century conditions. Surely the Legislator was in a fix at this juncture, so, in passing judgment upon his actions one should be guided by the thought that in this case he was more to be pitied than censured.

What Was Done

But what happened upon the stage with its complex and confused background of opinion? A resolution was passed asking the Congress to begin an inquiry into the alleged building material combine. And then another asking the Federal Trade Commission to investigate excessive building material costs and any combination formed to maintain high costs—(I use "costs" as it appeared in press reports; it's a little loose as to meaning, but I guess we understand what is meant). Having disposed of the industrial problems it then proceeded to deal with other matters; it passed legislation making the bonds of the State Land Bank legal investments for the sinking funds of the State, any city in the State, or any political division of the State. The purpose of the State Land Bank is to help building and loan associations raise money for homes.

It then passed a number of Acts dealing entirely with the relations of landlord and tenant, as to rents, evictions, dispossessions, none of which can have any tendency to stimulate the building of more houses with the possible exception of the Act making it permissive for local authorities to remit taxes on new dwellings for ten years.

The powers of the Lockwood Joint Legislative Committee on housing were broadened to include an immediate investigation to determine whether or not there is a combine to keep up the prices of building materials.

What Was Not Done

So much by way of disclosing the action taken. Some brief reference should now be made to acts of omission. The entire group of proposals, made by Governor Smith in his message, with respect to the passage of legislation looking toward the establish-

ment of a definite state housing policy to be administered under the direction of properly constituted boards, was rejected. In the debate it appears that the legislature took the position that the housing problem is a matter to be looked after by the municipality rather than by the state. But it flatly rejected the Hylan-Mann-O'Brien proposal for municipal loans for housing purposes.

It also threw out the proposal looking to the tax exemption of income from mortgages. It also rejected the suggestion that savings banks and fiscal concerns should invest more of their funds in real estate loans for the promotion of new dwellings.

It would be futile to attempt to appraise the work of this Special Session. There are no standards by which to rate it. But, it is possible to make certain observations with respect to the significance of the actions taken as throwing some light upon the shift which has recently taken place in sentiment concerning the rights of ownership—property—and the subject of profit.

Paradoxes

At the outset, the acts passed stand as sharply defined evidence of a state of confusion as regards our present concept of the rights of ownership in our system of economy, while an older concept as to the function of profit stands fairly secure. The acts stand to deny the established rights of ownership, while at the same time they stand to assert that profit alone serves as that which will animate the production of needed goods. Or again, they stand to deny that entire body of belief which holds that no scheme of economy whereby we carry on the life process may stand except it be based upon our time worn notions regarding self-help, equal opportunity and free bargaining, while at the same time they stand as convincing evidence of the failure of that scheme which rests upon them. So, looking at the matter from whatever angle we may choose to view it, it is hardly to be denied that this action constitutes one of the preliminary moves toward the disallowance of absentee ownership.

Naturally we hesitate to forecast what is likely to be the outcome of this wabbling action. It would seem to be a question whether the influence flowing from such drastic measures as those restricting the rights of ownership will cancel the effect of the invitation to build contained in the rather feeble measures of subvention by tax remission. No amount of argument on this head can possibly bring one to any definite conclusion.

Guessing

For the production and the distribution of a sufficient volume of needed goods, under modern conditions, depends upon "the market." And the market is a matter which depends upon price and purchasing power. And price and purchasing power is a matter which turns upon financial business—a matter of the control of credit. With financial business—the power to issue credit—running free in the vast areas of profit taking and speculation which lie without the field of enterprise in question—it is not plain how any of these acts can accomplish more than to arrest activity. But then, any forecast as to which of these two groups of measures is likely to exert the stronger "pull" in the long run can be little more than a guess. At best, it seems safe enough to say that quantitative net gain will approximate zero.

Restraint of Trade

But another consideration intrudes. While three of the resolutions would indicate that the legislators smelled a rat in the shape of a combination in restraint of trade in the building industry, and while no doubt investigations will be undertaken, few of those who stand close to the situation will be misled into the hope that anything will come of these resolutions. So long as the broad area of enterprise which lies without promises profits—profits upon investments and profits from financial business, which concerns itself not at all with the production of goods, so long will it be necessary to provide an equal opportunity for enterprise within the field of the building industry. Talk about limiting the opportunities for making money in the building industry is idle; to succeed in this respect is to fail in the enterprise of providing houses.

The Cancerous City

Considering, now, both acts of commission and omission from a still broader angle, certain things stand out as revealing how limited is our vision. Reviewing, now, the entire range of the preliminary discussion, the legislative debate and the enactments, one notes that the objective was limited to a quantitative consideration of the matter and that, for the most part, the entire group of proposals and measures plunged headlong into stimulating the growth of urban centers. Not a word, that I can discover, was uttered by representative groups in favor of treating the housing problem as a matter involving the accelerating drift of population from rural areas to urban centers.

The most forward looking of the proposals, in point of objective, involving the use of "public credit" were presented in terms of more houses and tenements in cities. From this evidence at hand it is to be presumed that any thought looking toward a redistribution of population, the reduction of congestion—decentralization—was either deemed too Utopian for serious consideration or that it was forgotten altogether.

I am fully aware that any action looking toward a redistribution of population cuts squarely across the course of business enterprise and the quest of profits. But, viewing the housing problem, as I do, as one which cannot be solved except that action toward its solution falls into step with action which would arrest the accelerating drift of population into industrial and business centers, I am forced into the position of viewing the preliminary discussion and the debate as very largely beside the point—pressing as are the problems at hand.

Since we will inevitably, and by the instrumentality of all forms of public discussion, further pursue the riddle of the Housing Question, it would be well to formulate some objective to our effort, less socially destructive than that of blindly stimulating the expansion of already overpopulated urban centers.

The report of the proceedings should not be concluded without observing that a fruitful field of research remained undisturbed. "Why is it that during a period which antedates the war by many years, we were confronted with a constantly accumulating shortage of houses and a constant expansion of slums and areas of congestion?" Penetrating inquiries along this line have already been made by certain students of economic science, and the reasons for this condition are not in doubt. But formal inquiries into the matter of housing and into the group of questions relating to the accelerating drift of population into industrial and business centers have failed to utilize the data prepared by philosophical economists.

These statements are made since it seems to the erporter that the inquiries by the various groups interested in this matter were so limited as to the field covered that they failed to engage with the one vital matter—the system of price competition and the rights of ownership which stand to sustain it.

THE WORLD: WEDNES

REAL ESTATE FOR SALE— LONG ISLAND | REAL ESTATE FOR SALE— LONG ISLAND.

Housing Problem Must Be Solved
Thousands of Houses Must Be Built.
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Lots must advance in price with increased demand.
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HEMPSTEAD

6½ MILES FROM GREATER NEW YORK.
42 minutes by Electric Express from Penn. Station.

¼ ACRE PLOTS **$195**
5 CITY LOTS

½ Acre Plots, 10 City Lots, $390

As having an important bearing on the housing question in New York City we reproduce the above advertisement from the columns of the New York *World*.

It exemplifies the pertinacity with which the problem is attacked at the front door while the criminals escape through the back door.

After the speculator has finished with his work and has carried the price of land as high as it will go, the architect will be asked to solve a housing problem.

The New York *World* is very busily engaged in rendering a noteworthy service to the community it serves by aiding in exposing the corrupt practices from which the building industry in New York City is at present suffering keenly, and which suffering is visited on the heads of the population that industry should serve.

It would be an excellent idea if the *World* would tell the truth about other and less sensational practices which are carried on by the majority of its citizens, with an effect quite a good deal more dire than is produced by the collusion of eminently respectable builders with eminently crooked labor leaders.

It would be an excellent idea to tell the truth about land speculation in its editorial columns and prohibit the use of its advertising columns for the undoing of the readers who support it.

The Flat Fee as a Measure of Equity

By JOHN LAWRENCE MAURAN

ABOUT TEN years ago one of our most loyal and important clients came to us with an alteration and remodelling problem involving a considerable expenditure compared to the result he was seeking. He was, as we well knew, a timid man in matters wherein architects feel they are on their home grounds, although bold enough in the financial and real estate field. The exigencies of time and the character of reconstruction led us, as a condition to fulfilling his wishes, to insist on the selection of a certain contractor on a cost plus basis, and in spite of the fact that in those good days now gone by the "cost plus" had a definite limit of liability of about two hundred thousand dollars, our client showed his timidity by hesitating over the indefinite amount of our fee of ten per cent. Although we could hardly fathom the causes of hesitancy, the inspiration of the moment led us to suggest that we would do the work—whatever it might cost—for a flat fee of twenty thousand dollars. With unmistakable relief he seized upon the suggestion and everyone was happy even upon the day of completion a week ahead of time and with a saving of over seventeen thousand dollars. There is a psychology in it, for in spite of paying us some seventeen hundred dollars more than ten per cent he had found security against the bugbear of increased costs involving increased architects' fees.

Now every architect worthy of the name would hotly repudiate the implied suggestion of bad faith but we must remember that often the client's mind visualizes added fees with any suggested betterment, no matter how high his confidence in the disinterested character of the suggestion.

From the deep impression left on us of the satisfaction of the owner we profited a little later on when he retained us as Architects for the first reinforced concrete building of any importance in St. Louis. It was an eight story wholesale building covering an entire city block and at an early stage in the negotitations, we percieved symptoms which led us to repeat our offer of a flat all-inclusive fee.

Our attitude through both these experiences was a more or less passive acceptance of the state of mind of a client, but quite recently we caught again the same note in the comments of clients during preliminary conferences, sounding a vague alarm as to skyrocketing of the fee in case of a pyrotechnic display in building costs.

This turned our thoughts to the two previous experiences, and changed our attitude from a passive one to an active advocacy of the fixed and all inclusive fee and late in 1919 when the material market had all the symptoms of an ascending escalator, we expressed our desire to fix in advance the *exact obligation of the client* for full architectural services including the fixed fees which we in turn agreed to pay the engineers engaged by us on work in their various branches.

Of course, the percentage system applied to the estimated cost furnished the basis for determing the fee named, but the fact that it was *fixed* gave our clients every assurance that their interests were paramount, and hence while we were bending every endeavor to protect them against spectacular advances there could be no possible ground for even the unformulated suspicion that we, too, were profiteering at their expense through the unpreventable increases in cost over the already high level of the moment.

While there was a certain amount of surprise expressed, there were unmistakable signs of appreciation of what commended itself to them as to us, as a buisnesslike cooperation insuring justice to all concerned, for the surprise centered about an unsuspected flexibility of the architect's mind in his methods of calculating his remuneration.

It may prove of interest to record the rather unusual method we adopted in the handling of these commissions under very unusual and very trying conditions. First of all we urged the immediate *selection* of a contractor of proved ability in the particular type of work, of absolute integrity and whose conditions of other work in progress at the moment justified such a step.

We further assured our clients that they could engage such a contractor to perform the work at cost plus a *fixed fee*. We also pointed out that in the purchase of material long in advance of the preparation of plans and specifications, that the logical method of handling such an undertaking was through the functioning of a "Committee of the Whole," consisting of owner, architect, contractor, the owner's operating engineer or manager and the architect's engineers (structural, mechanical, electrical, etc.) sitting together with one common purpose to discuss, decide and act on every matter whether of purchase or the choice of methods and materials.

Another phase of "all-inclusiveness" as pertaining to the Architect's fee (however arrived at) is the oft-time unspoken objection in the client's mind to the little understood separate payment of the clerk of the works, as well as the engineers. One of our clients voiced this feeling recently when he blurted out "we paid for your superintendents on the last job." From our recent experiences I can vouch for the fact that while we have been fully

reimbursed, our clients' satisfaction in the "all-inclusive fixed fee" has fully justified its adoption.

In looking back over the operation of the "Committee system," the application of the "fixed fee" to sub-contractors as well as the general contractor, and especially to our own "all-inclusive fixed fee" for architectural and engineering services, there were many occasions which spring to mind when we were thankful, indeed, not only because the disinterested character of our services excluded them from the often trying discussions over jumping prices, but more particularly because of the comfortable feeling that while we were being adequately paid for the service rendered, we were not profiting by the misfortunes of our clients, and so we feel that we can conscientiously commend to the profession and to our future clients, "the flat fee as a measure of equity."

Book Reviews

Essays on Art. By A. Clutton-Brock. Published by Methuen & Co., Ltd., 36 Essex Street W. C., London.

These twelve essays are reprinted from the *London Times Literary Supplement* with some revisions. The Preface is quite as interesting as any of the essays.

Paraphrasing some of the conclusions we find that although we cannot cause men of artistic genius to be born, nor can we make them by any governmental process, we can, in ourselves, provide a public to encourage the artist to be an artist and do his best; that though at present we have neither the state of society in which artists are encouraged to do their best nor are we in a state of mind to learn the good from the bad in art and to prefer the good, we can attain to both the proper states of society and of mind by learning the difference between good and bad workmanship and design in objects of every-day use. For this reason, professors of art in our great universities should be chosen for their success in furnishing their own homes properly rather than for their knowledge of Greek sculpture!

Comparing beauty in Nature with beauty in art the author says:

"In the beauty of Nature, as we perceive it, there is a perfection of workmanship which is perfection because there is no workmanship. Natural things are not made, but born; works of art are made. There is the essential difference between them and between their beauties. If a work of art tries to have the finish of a thing born, not made, if a piece of enamel apes the gloss of a butterfly's wing, it misses the peculiar beauty of art and is but an inadequate imitation of the beauty of nature * * * we get something which is mostly dead nature, not living art."

In the chapter on Leonardo da Vinci, Mr. Clutton-Brock asserts that the reason Leonardo is one of the most famous men in history is because he was the most representative man of his time and posterity has elected him the member for the Renaissance.

One of the most interesting essays in the book is the chapter on *The Pompadour in Art.* At "the mistress-ridden court of Louis XV," art was made to suit the tastes of the Pompadour and the Du Barry and the artist became the slave of the mistress.

"In this slavery he did produce something charming; he did invest that narrow and artificial Heaven of the Court with some of the infinite beauty and music of a real Heaven. But out of this refined harem art there has sprung a harem art of the whole world which has infested the homes even of perfectly respectable ladies ever since. * * * Execellent mothers of families, in their furniture and sometimes even their clothes, pretend to be King's mistresses.

"Yet these ladies know that they have not the revenues of the Pompadour; they must have their art, their make-believe, as cheap as possible; and it has been one of the triumphs of modern industry to provide them with cheap imitations of the luxury of the Pompadour * * * The king's mistress liked everything about her to be ornamented, because it was a point of honour with her to advertise the King's devotion to her in the costliness of all her surroundings. He loved her so much that he paid for this ornamentation * * * In all the art which we call Louis Quinze there is this advertisement or the labour spent upon it. It proclaims that a vast deal of trouble has been taken in the making of it * * * The trouble now is taken by machinery, and so, with the cost, is minimized; * * * The machine simulates a trouble that has not been taken and so gives proof of a voluptuous infatuation that does not exist."

In another chapter, Mr. Clutton-Brock speaks of the wilfulness of our attempts at art, how we *will* have art and so we plaster our utilities with the ornaments of the past trying to get the richness of experience second-hand from our ancestors. How we act like "children that have not learnt to read let loose upon the library of the universe; and all we can do is to pull the books about and play games with them and scribble on their pages. Everywhere the earth is defaced with our meaningless scribbling, and we tell ourselves that it means something because we want to scribble."

The author decries "Professionalism in Art." He tells us that "professionalism is a dull, ugly word; but it means dull, ugly things, a perversion of the higher activities of man, of art, literature, religion, philosophy." He tells us that because we have lost the immediate sense of good and bad in art, we are afraid to admire a thing because we like it, lest we shall admire the wrong thing. We expect art to be difficult and mysterious and we are afraid to enjoy the simple and obvious, in short, "we have attained to our present notion about art which is like the Puritan notion about virtue, that it is what no human being could possible enjoy by nature."

The book, despite the pedantic commonplaceness of its title, will set many a reader to thinking, which is good. If it sets any reader to thinking so hard that he can conscientiously and logically agree with Mr. Clutton-Brock, or disagree with him, it will be doubly good.

BEN J. LUBSCHEZ.

Institute Business

Proposed Changes in Schedule of Charges

During the past year two suggestions have been offered concerning changes in the Schedule of Charges by the Illinois and Cleveland Chapters.

The Board believes that the Schedule of Charges, being one of the most important standard documents of the Institute, should only be changed to accord with a strong majority sentiment, and these suggestions have been referred to the Chapters so that there might be the fullest opportunity for discussion and development of a consensus of opinion at the next Convention. They have been requested to report to the Secretary by February 1, next.

The Executive Committee at its August meeting further instructed the Secretary to call especially to the attention of the Chapters the provisions for the payment of the Architect's commission as provided for in Article 9 of the Schedule. The Executive Committee feels that this method of payment involves hardships to the Architect and is undesirable, and that some method should be arranged for paying the Architect month by month, from the beginning of his work, such payments to be so arranged as to conform, in totals, to the payments now arranged for. Chapter consideration of this question has been asked.

As of great general interest, we republish the suggested change in the Schedule of Charges proposed by the Cleveland Chapter:

1. In the last time of Article 1 the word "six" to be changed to "eight."

2. Add the following clause to Article 2: "The minimum charge for factories and warehouses shall be six per cent."

3. In Article 5 strike out "and the costs of * * * engineers" and replace with the following: "Mechanical Tests, Surveys and Models when required are to paid for by the Owner: the Architect shall furnish for the use of the Owner and Contractor not to exceed six copies of all scale drawings and specifications, one copy of all full size drawings, and three copies of all contract documents; any additional copies of these drawings and specifications or documents that may be required in the securing of bids or in the execution of the work shall be ordered by the Owner and paid for by him or by the Contractor, as the Owner may dictate."

The Illinois Chapter proposed the following changes:

1. The architect's professional services consist of the necessary conferences, the preparation of preliminary studies, working drawings, specifications, large scale and full size detail drawings; the drafting of forms or proposals and contracts; the issuance of certificates of payment; the keeping of accounts, the general administration of the business and supervision of the work, for which, except as hereinafter mentioned, the minimum basic rate of charge for complete, competent service, based upon the total cost of the work complete, is six per cent.

2. He may include the execution of work he designs and specifies as a builder, on a known fee or percentage fee basis, but not as a contractor on a lump sum basis, for which an extra charge of 4% to 6% is equitable.

3. On residential work, alterations to existing buildings, monuments, furniture, decorative and cabinet work and landscape architecture, it is proper to make a higher charge than above indicated.

4. The architect is entitled to compensation for articles purchased under his direction, even though not designed by him.

5. Where the architect is not otherwise retained, consultation fees for professional advice are to be paid in proportion to the importance of the question involved and services rendered.

6. The architect, when rendering services indicated in Articles 1 and 3, without executive services of Article 2, is to be reimbursed the costs of transportation and living incurred by him and his assistants while traveling in discharge of duties connected with the work. The costs of heating, ventilating, mechanical and electrical engineers or special esthetic services should be paid by the architect and included in the architect's charges and in some cases of special engineering or esthetic problems would raise the "basic rate" in proportion to the cost of such special services.

7. The rate of charges arising from Articles 1 and 3 hereof, *i. e.*, the "basic rate" applies when all of the work is let under one contract. Should the owner determine to have certain portions of the work executed under separate contracts, as the architect's burden of service, expense and responsibility is thereby increased, the rate in connection with such portions of the work is greater, (usually by four per cent) than the "basic rate." Should the owner determine to have substantially the entire work executed under separate contracts, then such higher rate applies to the entire work.

8. If, after a definite scheme has been approved the owner makes a decision which, for its proper execution, involves extra services and expense for changes in or additions to the drawings, specifications of other documents; or if a contract be let on cost of labor be put to labor or expense by delays caused by the owner or a contractor, or by the delinquency or insolvency of either, or as a result of damage by fire, he is to be equitably paid for such extra service and expense.

9. Should the execution of any work designed or specified by the architect or any part of such work be abandoned or suspended the architect is to be paid in accordance with or in proportion to the terms of Article 10 of this Schedule for the service rendered on account of it, up to the time of such abandonment or suspension.

10. Whether the work be executed of whether its execution be suspended or abandoned in part or in whole, payments to the architect on his fee are subject to the provisions of Articles 8 and 9, made as follows:

Upon completion of the preliminary studies, a sum equal to twenty per cent of the "basic rate" computed upon a reasonable estimated cost.

Upon completion of specifications and general working drawings (exclusive of details), a sum sufficient to increase payments on the fee to sixty per cent of the rate or rates of commission agreed upon, as influenced by Article 7, computed upon a reasonable cost estimated on such completed specifications and drawings, or if bids have been received, then computed upon the lowest bona fide bid or bids.

From time to time during the execution of work and in proportion to the amount of service rendered by the architect, payments are made until the aggregate of all payments made on account of the fee under this Article reaches a sum equal to the rate or rates of commission agreed upon, computed upon the final cost of the work.

Payments to the architect, other than those on his basic fee, fall due from time to time as the work is done or as costs are incurred.

No deduction is made from the architect's fee on account of penalty, liquidated damages or other sums withheld from payments to contractors.

11. The owner is to furnish the architect with a complete and accurate survey of the building site, giving the grades and lines of streets, pavements and adjoining properties; the rights, restrictions, easements, boundaries and contours of the building site and full information as to sewer, water, gas and electrical service.

The owner is to pay for borings or test pits and for chemical, mechanical or other tests, when required.

12. The architect endeavors to guard the owner against defects and deficiences in the work of contractors, but he does not guarantee the performance of their contracts. The supervision of an architect, working under provisions of Article 1 hereof, is to be distinguished from the continuous personal superintendence to be obtained by the employment of a clerk of the works.

When the architect operates under Article 1 hereof, if authorized by the owner, a clerk of the works, acceptable to both owner and architect, is to be engaged by the architect at a salary satisfactory to the owner and paid by the owner, upon presentation of the architect's monthly certificates.

13. When requested to do so, the architect makes or procures preliminary estimates on the cost of the work and he endeavors to keep the actual cost of the work as low as may be consistent with the purpose of the building and with proper workmanship and material, but no estimate can be regarded as other than an approximation.

14. Drawings and specifications, as instruments of service, are the property of the architect, whether the work for which they are made be executed or not.

NOTE: The Royal Institute of British Architects has increased its minimum charge from 5% to 6% and has prepared an elaborate Special Schedule for housing work. The Federation of French Architectural Societies has adopted a Sliding Scale Schedule, published in these columns in July, 1920, materially increasing professional charges.

Ante-Bellum Houses of Central Alabama

By N. C. CURTIS

Photographs by JEFFERSON HAMILTON*

ANYONE who has observed, even casually, the existing architecture of the second quarter of the last century in the extreme Southern states must have been impressed by the fact that the builders of that period apparently cared little for brick as a facing material, yet I do not remember to have seen this conclusion hitherto recorded. In Virginia and the Carolinas the wall of red brick was the rule for all types of permanent buildings in town or country, whereas in the Gulf states it was rather the exception. The preference in the latter case was for stuccoed surfaces and for clapboarded houses which could be painted a light and cheerful color. Plastered brick walls were also commonly finished off with paint or whitewash in this locality, a practice which has given both to isolated buildings and to the closely built-up blocks of houses in the older quarters of the cities, especially in Mobile and New Orleans, much of their distinctive charm of varied hue and tint. Even where we find brick walls unplastered the ruddy tones characteristic of this material soon disappear beneath coats of whitewash, frequently renewed.

The curious observer will seek to find some reason for this consistent variation in external architecture, and his search will lead him to consider those factors which ordinarily produce modifications in the architectural design of any country, viz., taste, tradition, available materials and workmanship. Of these factors, each no doubt contributed a share towards the final result, but it is likely that the more humanizing ones exerted a controlling influence; materials probably had little to do with the question. The houses of the middle-Atlantic coast were of brick because the colonists there received that tradition from England; plastered walls came into vogue in the Gulf States because the resulting appearance was more in keeping with the French and Spanish vernacular.

Thus the prevailing taste in this regard, becoming fixed in the early Colonial days, continued its influence over the later architecture of the first half of the 19th century, and extended even to remote plantation houses scattered throughout Georgia, Alabama, Mississippi and Louisiana.

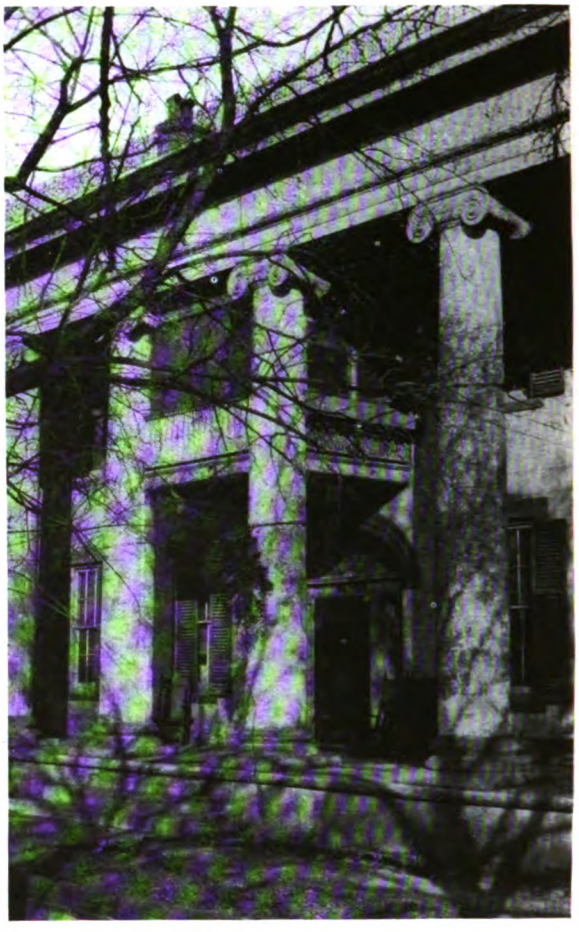
If we except the locality around Mobile and the extreme northern part of the state adjacent to Tennessee, the general colonization of the rich lands of Alabama began about 1817, after, in one way or another, the claims of the Indians, had been extinguished and their tribal organizations broken up. In this year the Territory of Alabama was created by a division of Mississippi Territory, with St. Stephens as its capital city. During the fifty years following Alabama had five successive capitals—St. Stephens, Huntsville, Cahaba, Tuscaloosa, and finally Montgomery. In the Huntsville convention of 1819, twenty-two counties were represented, covering an unevenly distributed and sparsely settled territory.

NOTE.—The story of the river voyage of Colonel Donelson and his daughter Rachel illustrates the kind of toils and perils which all had to face who sought to establish homes beyond the frontier. Toward the close of the 18th Century General James Robertson with eight others settled at Nashville, returning to

* Nearly all of the houses furnishing illustrations for this article are situated near the route of the old stage road which led from Columbus, Georgia, on the Chattahoochee river—the eastern boundary of Alabama—westwardly down to a settlement near the present city of Montgomery. This was the original highway penetrating the then sparsely settled territory of central Alabama. Pioneers of the same character as those who settled in the Columbus, Tuskegee and Auburn neighborhoods passed on down the Chattahoochee to western Florida, founding the old town of Marianna. An illustration taken from the latter town is, therefore, not out of place, especially as it serves to bring out more clearly certain characteristics mentioned in the text.

The Hurt Homestead—Near Tuskegee, Alabama

A Façade in Columbus, Georgia

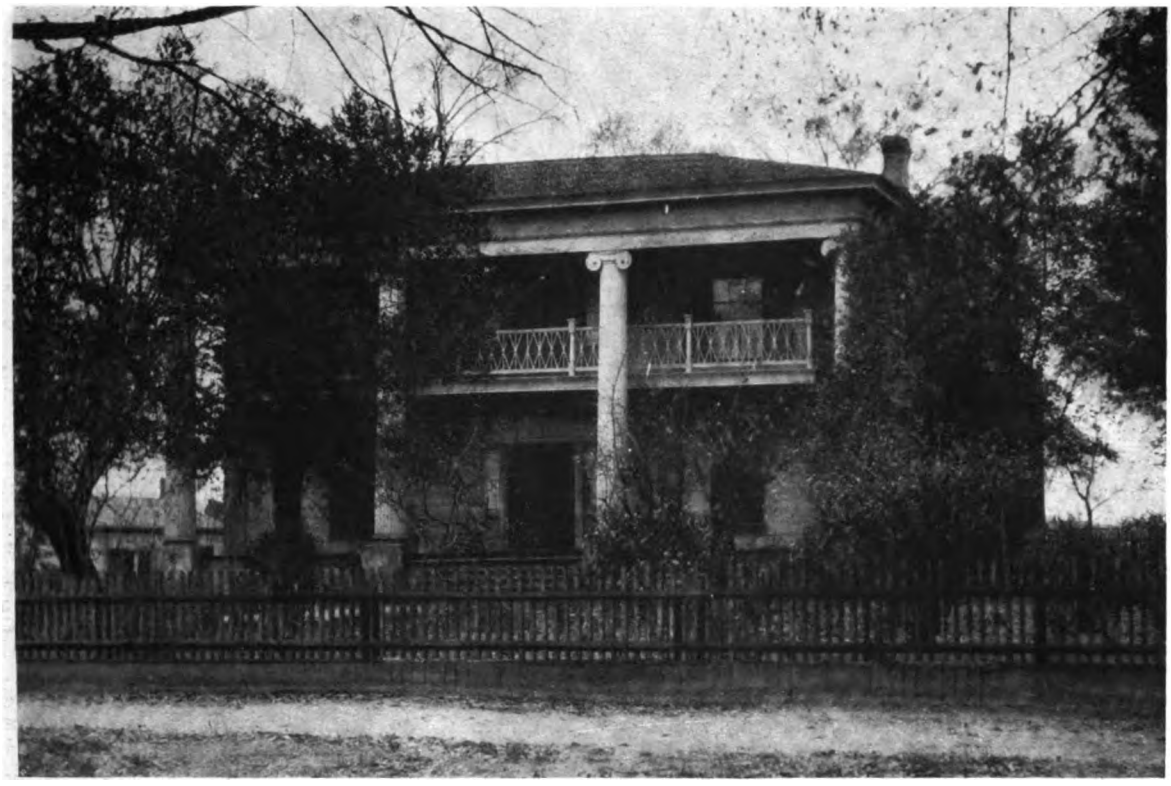


Detail of Portico—Fontaine House

East Tennessee in the Fall for their families. On the return General Robertson was to proceed first with a number of young men to raise the necessary buildings. Colonel Donelson was to follow with another party of emigrants, including the women and children. To avoid the fatigue and difficulties of an overland route, Colonel Donelson conceived the idea of reaching the new settlement by water, down the Tennessee and up the Cumberland rivers. No one had ever attempted this trip before. After a voyage of four months, harassed all along the route by the Cherokees, the party reached their new home. By no means the least of the dangers of the journey was the passage of the cataracts of Muscle Shoals, which Colonel Donelson boldly shot without a pilot. Rachel Donelson was one of those who shared the perils of the voyage. A chronicler describes her as "a black-eyed, black-haired brunette, as gay, as bold, and as handsome a lass as ever danced on the deck of a flatboat, or took the helm while her father took a shot at the Indians." This spirited beauty became the wife of General Andrew Jackson.

About 1820 the rush of emigrants to occupy the soil of Alabama began. For the most part they were people of high respectability, of good education, apparently in good circumstances, but not individually wealthy. Men of all professions and of equally diverse pretentions made the transfer, bringing with them all the means of civilized life in its then state. Preachers, doctors, lawyers, and merchants soon set themselves up in their new environment; while the various religious denominations, Methodists, Baptists and Presbyterians, began "to provoke each other to do good works" after the same provoking manner to which the old communities were accustomed. The early settlers came in large numbers from Tennessee, Georgia, North Carolina and Virginia, attracted to the new territory by a rich soil easily cleared and put under cultivation, and the high price of cotton. The standing timber was removed from thousands of acres by the simplest process possible, that of girdling the tree at its base and leaving it to rot where it stood and fall, limb by limb, to the ground!

Naturally timber was of little value (reckoned in terms of money to an individual), and no trouble was taken to conserve it. Only enough was saved to build dwellings and other necessary shelters. The typical house of the period was built of logs, roughly squared, the chinks filled with clay and small stones, the roof made of riven shingles, and the cavernous chimney constructed of field stones or plastered sticks. These dwellings were primitive enough;



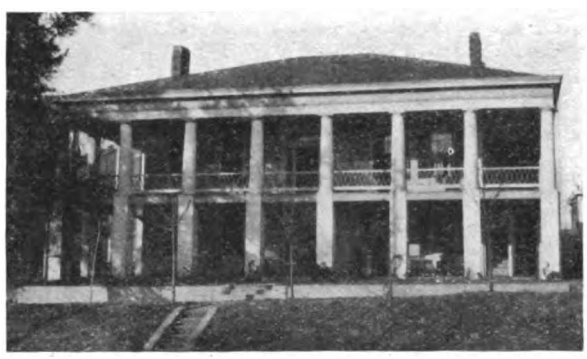
THE COBB HOMESTEAD—TUSKEGEE, ALABAMA

but do not let us seem to disparage the log cabin; many of us would be glad to have one to live in today.

Judging by the log houses still in existence, and there are not a few of them, it is evident that there was a conscious effort to adapt the plan to the requirements of the climate. For many years, even in the richest families, dwellings consisted of two log cabins divided by an open, roofed-over hall; the whole affair oriented to catch the breeze and avoid the direct rays of the sun in the central hall. Above there was a low attic—*the boudoir* of the girls. Cooking was done in a separate "cook-house," somewhat removed from the main building, an arrangement which prevailed everywhere in the far south. The wide, open hall, "the coolest place in the house," together with the isolated "cook-house," remained the controlling features of all subsequent house-planning until the advent of the ubiquitous, usually iniquitous, bungalow, substituted its fetching novelties for discomforts hitherto easily overlooked.

Commentators on architectural history tell us that in order to understand the architecture of any people we must examine somewhat into their co-existing state of society. It must be understood, in the beginning, then, that since land was free, in those days people of practically all condition, except, slaves, owned their own homes. Only the better circumstanced, of course, owned such houses as are illustrated in this article.

Generally speaking there were three classes of rural dwellers in ante-bellum Alabama—wealthy plantation-owners, negro slaves, and small farmers or artisans (the so-called "poor-whites"). At first all classes were dependent upon their own resources and materials at hand for farm implements, clothing, furniture, and other necessary comforts about the home; it was not until roads had been broken through the wilderness and water-traffic opened up that wealthy house-holders were enabled to supply their homes with handsome and expensive furnishings. The exigencies of his situation forced the pioneer to develop a certain amount of skill in handicraft, generally crude enough in its results, but occasionally producing objects of real decorative beauty. Here, then, was a genuine expression of native art, in every way representative of the life of the people and of the materials and tools with which they had to work. In time something durable in the way of style might have come of it if subsequent conditions had favored a continuance of the effort. Its vitality, however, was wholly dependent upon necessity and isolation and not upon a real art-instinct or love of craftsmanship. In this instance, as in almost every other of a like nature, handicraft died as soon as the



HOUSES IN COLUMBUS, GEORGIA

products of the factory were brought to the door of the home. Good roads and facilities for trade and transportation, wherever they touched the life of the people, speedily brought to an end all evidences of artistic activity, and the idea that a thing was valuable because it was "store-bought" and not because it was "hand-made" was readily taken up, while ignorance and laziness helped to make the idea universal. There are even yet, however, some remote communities in the South where the cheap and worthless products of modern American industry have not been forced upon the people. These are mostly in the localities where good roads have not opened up convenient trade-routes to the county-seat and cross-road store; particularly in the mountain regions of North Carolina, where dwell those people who have been called "our Southern Highlanders," and in some of the remote settlements of the south-Atlantic coast, are still to be found many of those home-industries which were once common throughout the cotton-states.

Skill in handicraft was developed in both sexes. The men made furniture, chiefly "split-bottom" chairs, agricultural implements and baskets, while

THE MOORING HOUSE—MARIANNA, FLORIDA

FIG. 1—HOWELL HOUSE—COLUMBUS, GEORGIA

CARY HOUSE—AUBURN, ALABAMA

the women busied themselves with the weaving of cotton and wool fabrics, and with needlework. Rocking-chairs and straight-back chairs and little stools, called "crickets," were made of hickory or white-oak, left in the natural finish, and though not of graceful form, had a certain quaint sturdiness and comfortable quality very satisfactory to a tired back. Chair backs were slatted and seats cross-woven of hickory splits. The women far surpassed the men in the display of artistic ability. Fringed and elaborately self-patterned counterpanes or bed-spreads were among the handsomest fabrics produced. These were hand-woven on a home-made loom and were artistically superior to anything modern of the sort we have seen. Their beauty was largely due to the custom of making the warps by hand from selected and washed cotton lint, a method which gave threads of irregular diameter, impossible of imitation by machinery. Dyes were generally avoided except in rug-making, the preference being for pure white in all the more elegant cotton fabrics. Rugs and carpets were very simple and easy to make. They were of two kinds—rectangular striped and "round and round." Both sorts

ST. ELMO—NEAR COLUMBUS, GEORGIA

FIG. 2—HOUSE IN AUBURN, ALABAMA

were made of plaited, folded and tufted cotton and wool rags, the colors selected more or less at random.

It is perhaps not generally known that handwork of all the different sorts was frequently done on the large plantations by negroes, and it is ample proof of their native skill in craftsmanship that they were able to make so many excellent things after very little instruction and with slight supervision. It was no easy task to supply a force of say two-hundred field hands with two complete changes of clothing from head to foot, every year, but this was customary everywhere. Not only were all the garments cut and fashioned on the plantation, but in addition all the several sorts of cloth were actually woven there and at least half of the necessary thread spun from the lint.

Prosperity came on apace and with the year 1840 the Gulf States entered upon an era of unprecedented wealth and luxury locally known as "the flush times," which was only brought to an end by the Civil War and the consequent economic ruin of the Southern Confederacy. This was the heyday of the cotton planters of the "Black Belt" and the sugar planters of Louisiana. Lines of passenger and freight steamers began to ply the rivers, and New Orleans and Mobile, since they were easily accessible by water, became the popular centers for the transactions of business and the enjoyment of social life. Most of the wealthier planters made it a point to visit New Orleans with their families sometime during the gay winter-season and the newly-built hotels, especially the St. Charles and St. Louis, overflowed

"JUDGE ABERCROMBIE" HOUSE—TUSKEGEE, ALABAMA

FONTAINE HOUSE—COLUMBUS, GEORGIA

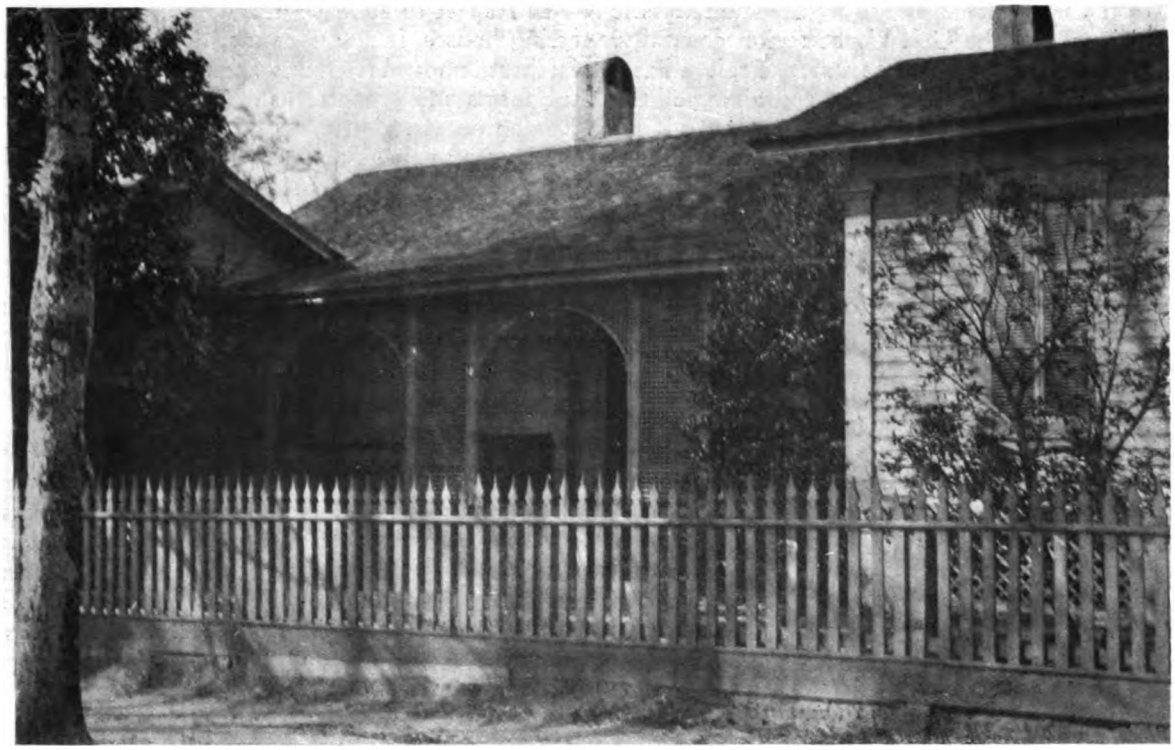


FIG. 3—IN A SIDE STREET IN TUSKEGEE, ALABAMA

with pleasure-loving tourists. Many also made periodic visits to Europe and to the Northern and Eastern cities of their own country. Wealth, travel and the inborn taste for luxury, transferred from the older communities, soon bore the usual fruit and the planters began to build stately and well-appointed homes into which every known comfort and convenience was introduced. The most expensive furnishings, imported from France, found ready purchasers and the planters' houses vied with the city mansions in the richness and elegance of their appointments.

The plans of practically all of these houses, whether located in town or country, show little deviation from the arrangement already established; that of a broad central hall passing through the house, with rooms on either side. There is, however, considerable diversity in external architecture, in the means of access into the house, and in the location of the principal staircase and the importance given to it. The more imposing houses are, of course, two stories high, and it is possible to separate these into two general types, depending on whether the principal floor is the lower or upper one. One type, with living-room, dining-room, and other common rooms on the first floor, an internal staircase, and on the second floor the bed-rooms, recalls the usual and familiar arrangement of the Eastern states. The other, in which practically all of the principal rooms including the bed-rooms are on the second

FIG. 4—HOUSE IN COLUMBUS, GEORGIA

HOUSE IN COLUMBUS, GEORGIA

floor, is the type of plantation house characteristic of Louisiana and the Gulf Coast region generally. In it the ground floor becomes a sort of raised basement, built at the grade level and containing all the rooms ordinarily found in a cellar, such as the laundry and store-rooms. Very often, too, the dining-room was in this lower story. It was reached by a staircase from the hall above and was in easy communication with the kitchen, which, as has been previously stated, was invariably located in a separate building. The most distinctive feature of this type of house externally was the broad verandah which often entirely surrounded it, and which, in view of climatic conditions, became virtually an outdoor living-room for all the members of the household. Outside staircases gave direct access to this verandah at one or more places. These enabled the family easily to reach the surrounding lawns and gardens, while callers could be received without the necessity of entering the house. The elevation of the living-rooms and the location of the "galleries" insured a pleasanter outlook and a better circulation of air; moreover it helped to secure immunity from snakes, scorpions, ants, and the varieties of insects that infest that region.

In central Alabama, although there are many houses of the characteristic Louisiana type, and others of the type familiar to the Atlantic coast, the majority of dwellings are a sort of compromise between the two, retaining features of both while introducing some others wholly local in character.

In respect to architectural detail, the most interesting houses, it seems to me, are those which are farthest removed from any attempt literally to copy the forms and proportions of the classic Greek and Roman orders.

Fig. 1 represents a type locally known as "raised cottages," an arrangement that was very popular for less imposing dwellings, and remains today one of the most satisfactory and livable styles of buildings to be found in this locality.

Square piers were often substituted for columns as gallery supports, Evidently the latter were preferred, since they lend themselves more readily to stately or elegant effects; but they must have been hard to obtain in some places, and in such cases the square forms were used, doubtless because they were easier to construct and easier to build to. However we must also conclude, in view of the great diversity of proportions and detail which these houses show, that the search for character may also have been a controlling motive.

The treatment of the front wall of the house, as if it were the inside of a room, seems to have been a feature peculiar to Alabama. At least I have not observed it elsewhere except in isolated examples. Fig. 2 illustrates this quite clearly. Here the back wall and ceiling of the verandah have been lathed and plastered after the manner of an interior, while the rest of the house is merely clapboarded and painted. Whether the building happened to be of brick or frame construction, this was the prevailing prac-

THE CASEY HOMESTEAD—NEAR AUBURN, ALABAMA

tice—originating, it seems, in the desire to make the verandah more livable in character. A close scrutiny of practically every illustration accompanying this article will show that the back wall of the verandah was never treated like the exposed sides of the house. Even where plaster was not used some form of matched siding, usually painted white, took its place.

There are two noticeable features in respect to home and property without which the Southern householder seems never able to get along—the enclosing fence and the window-blind or shutter—in sharp contrast to some other section of the country, especially the Middle-West, where one hardly ever sees either fence or shutter. Letting alone such questions as privacy, protection, democracy, hospitality and other neighborly concerns, from which interesting conclusions might be drawn, it seems apparent, simply from an impersonal viewpoint and considering appearances only, that picket-fences, lattices, trellises and shutters, where discreetly used, help strongly to characterize a home and to make it more livable and attractive. Individuality, with due respect for communal interests, is a proper characteristic for every home; lack of privacy, like lack of modesty, is both vulgar and barbaric. What could be more delightful than the modest little composition shown in Fig. 3.

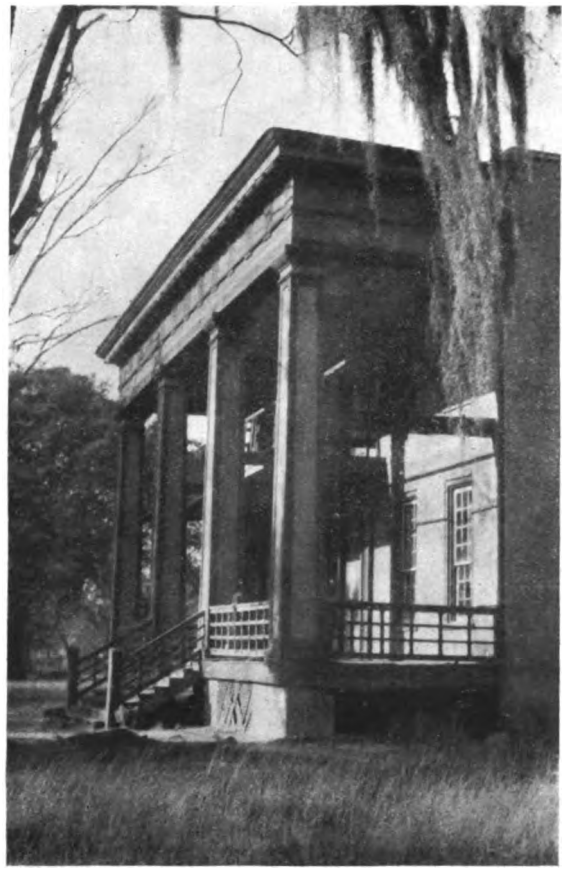
A few of the houses illustrated are embellished with balconies of cast-iron in the intricate and beautiful patterns characteristic of New Orleans, as in Fig. 1. These, of course, are merely importations from that city, as there were no foundries for manufacturing them located elsewhere.

Taking the illustrations as a whole, the houses most stylistic character are those shown in Figs. 2, 4, and 5.

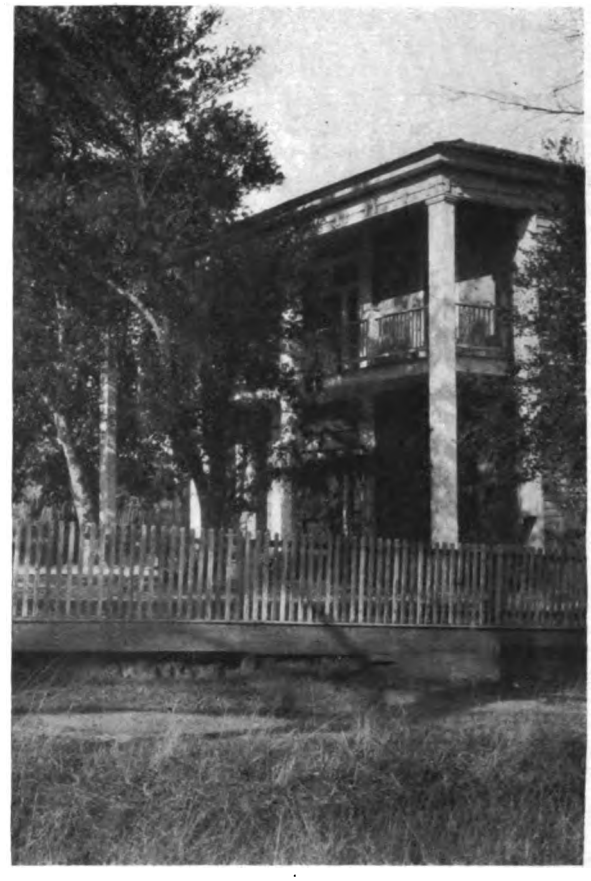
One would be interested to know whether those responsible for this architecture were actually architects or simply the enlightened owners who superintended the work, and what documents they may have had for guidance. On these interesting points the testimony is by no means convincing, since practically all records were obliterated during the Civil War, but I am satisfied that the more pretentious mansions were designed by New Orleans architects. There were then some very able ones in New Orleans, of whom Gallier, Mills, and DePouilly were three of the ablest and best known. DePouilly preferred the Roman style as is evidenced by his old St. Louis hotel and Citizens' Bank, while the other two usually turned to Greek motives for inspiration.

It is quite likely that the lesser houses were built by a superior class of artisans, aided and advised by the owners. Fine libraries were not uncommon, particularly in the homes of lawyers, doctors and public men, and books on architecture found a place on their shelves. Private libraries, however, were almost without exception either destroyed or scattered by Federal soldiers during the war, so it is hard

FIG. 5—A DOWNTOWN HOUSE IN TUSKEGEE, ALABAMA



THE ELY HOUSE—MARIANNA, FLORIDA



THE MAGRUDER HOMESTEAD—TUSKEGEE, ALABAMA

to be certain as to their architectural contents, but I have myself run across stray volumes of Stuart and Revett, and Taylor and Cresy, and books of orders in old houses. The New Orleans architects had beside the works just mentioned, no doubt—Desgodetz, and Inwood's Erechtheion at Athens, and possibly the publications of the Society of Dilettanti of the earlier date.

The skill of the craftsmen is evidenced by the work itself. The carpenters must have been very skillful and genuinely artistic. In those days, before the mill took over the manufacture of ornamental detail, there was usually a happy collaboration of the hand, heart and brain of the worker. I have heard my father speak of one Benjamin Blaney, a famous carpenter of fine artistic genius. It is certain that there were numbers of artisans of this type, masons as well as carpenters, who did the actual work, and did it in the light of an artistic conscience.

American architecture of the post-Colonial period ending about 1850 has, as a rule, received little attention from commentators. How much of this neglect may be due to the general belief that this was a period of bad taste throughout the United States and therefore not worth considering, or to that habit of classification to which architectural historians are addicted, I will not venture to say. It is certain that the requirements for merit in architecture are not always derived from intrinsic qualities which it may possess, but often rather from assigned dates of execution. Thus, this house, mantel or doorway is good in design because it belongs to the Colonial period—that one is the reverse because it was done in 1840.

All of the houses treated in this article belong to dates varying from 1830 to 1850. Let the illustrations which I have selected speak for themselves. The reader may decide in his own mind as to their merits without further apology from me.

A Plan For Constantinople*

By FRANCIS W. KELSEY

Photographs by GEORGE R. SWAIN

WITHIN the past twelve years, one-fourth of the total area of Stamboul, the most ancient part of Constantinople, and still the heart of the city, has been burnt over, and lies unrestored and desolate.

The accompanying plan, prepared for the United States High Commissioner, Rear Admiral Mark L. Bristol and now published with his permission, shows the extent of this burnt area, and its relation to the rest of the city. The first great fire came in 1908, (Area A) and destroyed fifteen hundred buildings. In Area B two thousand four hundred and sixty-three buildings were destroyed on July 24th, 1911. The following day, the area marked C—the Jewish quarter—was burned over. Other great fires came in 1912, 1915 and 1918, and have left desolate and uninhabitable an area in all of two millon and eighty-nine thousand square meters.

The destruction of habitations in Constantinople has been accompanied by a notable increase in population which in 1908 was estimated as between eight and nine hundred thousand. Conservative computations place the number of inhabitants today at from twelve to twelve hundred and fifty thousand. The city is crowded with refugees and foreigners.

As a result, conditions today are indescribable. While the population has increased some thirty per cent or more, its housing accommodations have been reduced, on a conservative estimate at least fifteen per cent below the total of 1908. The congestion of living and of street traffic is almost unbelievable to one who has not come into direct contact with it.

From the point of veiw of the future, the burned areas of Constantinople are an asset of incomparable value and interest. The great fires of the last century in American cities furnish no proper parallel. These cities were of modern growth, with broad and regular streets, and in most cases had an adequate system of sewers and water mains. With the exception of a comparatively small area, therefore, it was possible in rebuilding to follow the lines of the old streets.

Here in Constantinople, on the contrary, one finds almost virgin soil for city planning. In the unburnt portions of the city a large part of the construction still remains of the flimsiest character, and the development of public utilities is far behind the requirements of the population. If only a far-sighted and liberal public policy can be worked out and given legal sanction, it presents the most extraordinary opportunity of the ages to build a metropolitan city in the light of the experience and knowledge which the centuries of civic development, and the recent decades of intensive study of city planning, place at the service of the expert.

Who will undertake to work out and formulate such a comprehensive policy looking toward the future development of this city, which must arise from its squalor, and may, within a generation, be made a beautiful city. It is hardly to be expected that the local government, or the European Powers directly interested—beset, as they will be, with grave difficulties of many sorts,—will of their own initiative essay this task in a broad way. It is reasonable to suppose, however, that if a competent commission of experts should work out a feasible plan, this would probably be adopted and enforced under proper supervision. The first step is to secure the data and prepare the plan.

Is this not a proper undertaking for certain leading organizations in the United States to attack through cooperation. If the American Institute of Architects or the American Federation of Arts should invite special organizations whose work touches the field—such as the Archaeological Institute of America and the American Historical Association—immediately to send representatives to New York or Washington to join in a conference in order to attack the problem in an effective way, the beginning would be made of a solution fraught with incalculable possibilities for good.

After a preliminary plan of attack had been worked out European co-operation might be enlisted and the way opened to present a clearly formulated and practicable plan to the authorities in control of the city. The project is by no means visionary. In Constantinople there is no more careful student of problems connected with the welfare of the city, present and future, than the United States High Commissioner, Rear Admiral Bristol. In regard to the problem with which this article is concerned he concludes his summary of the situation as follows:

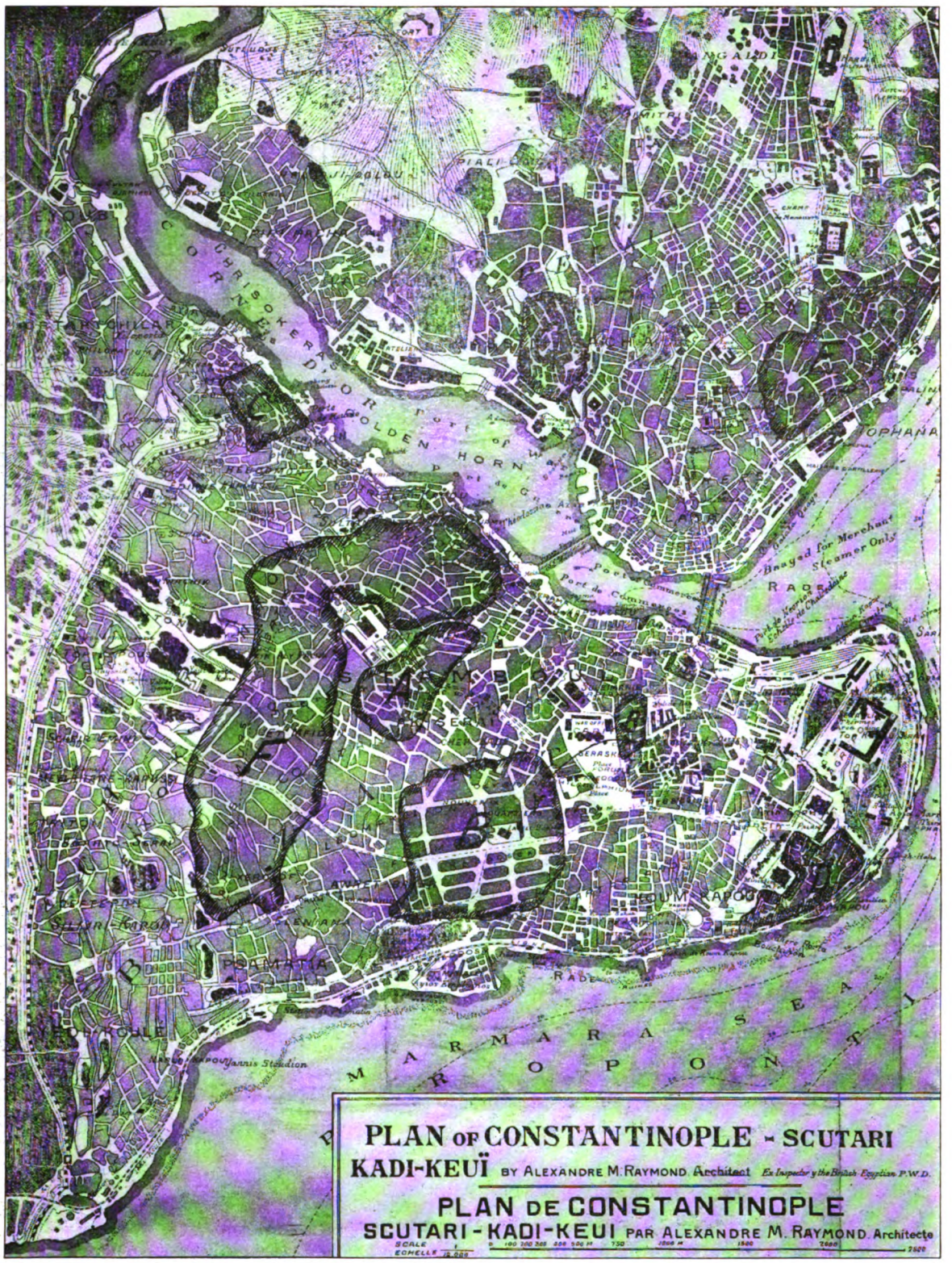
"* * * an American organization to design, finance and construct a City Beautiful, with all modern appliances, upon the burned ruins of a large part of the city of Constantinople, would be an enterprize worthy of the best efforts of American progressiveness."

The first condition of success lies in immediate action, that a plan may be matured and made ready for adoption before conditions have so changed as to make the adoption of a comprehensive plan impossible.

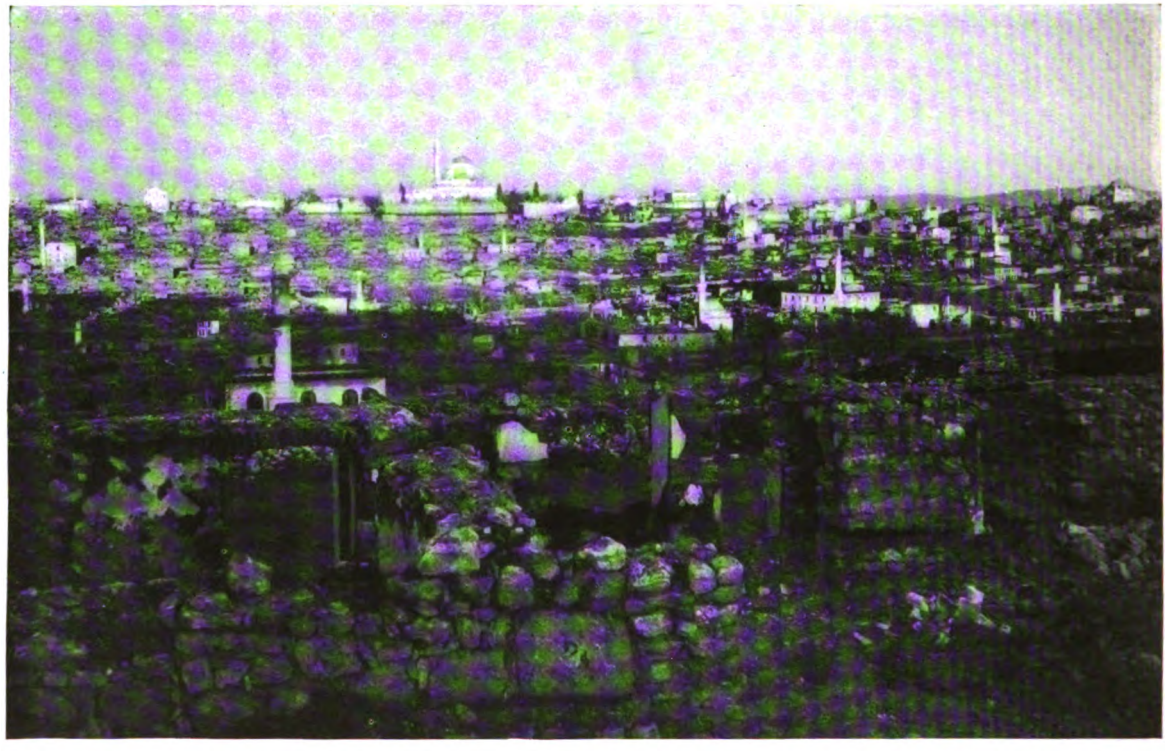
*On account of the urgency of Professor Kelsey's appeal this article appears simultaneously in *Art and Archaeology*, published by the Archaeological Institute of America.

CONSTANTINOPLE.—View in Pera, showing the contrast between European buildings, along the higher part of the ridge, and native buildings in the foreground.

CONSTANTINOPLE.—A Typical Fire-Nest in Stamboul, near the edge of burnt area marked F.



CONSTANTINOPLE.—View from the City Wall near the Adrianople Gate, looking east. In the background, at the right, is the Sea of Marmora. The group of six minarets in the background and nearest the sea belongs to the Mosque of Ahmed. The large tower at the middle of the background indicates the location of the War Office. In the middle ground the burnt area F extends entirely across the range of vision.



CONSTANTINOPLE.—View over a section of the burnt area marked F, looking east just before sunset. At the edge of evening the minaret in the middle ground, rising above ruined and deserted mosques, presents a ghostly appearance.

The First Pan-American Congress of Architects

The Secretary of the Institute has just received the report from Mr. Louis Newberry Thomas, of the firm of Chambers & Thomas, Architects, Buenos Aires, on the First Pan-American Congress of Architects held at Montevideo, Uruguay, in March last. Mr. Thomas was kind enough to accept the appointment of official delegate from the American Institute of Architects, and he was also the representative of the United States Government. His report contains a detailed account of the nine resolutions adopted by the Congress which we summarize as follows:

1. Transformation, Enlargement and Beautification of the Predominant Type of American City. The Congress resolved that these were matters for legislative action on the part of both Federal and Municipal authorities; that studies should be made, plans prepared, and ultimately that approved plans should be made mandatory upon all communities. The old geometrical street arrangement was condemned, and the present situation was described as "an extremely defective state of things."

2. Building Materials from American Countries. This resolution was a general appreciation of the idea that each country should stimulate the use of its building materials, that scientific research should be made, that testing laboratories should make known their findings to the architectural societies and that they, in their turn, should form museums for such materials.

3. Registration. The Congress decided that "it is indispensable to regulate the practice of architecture on a basis duly authorized by the state, controlling private exercise of the profession."

4. Housing. The Congress urged Government financial support for better housing, recommended more houses in manufacturing districts and in the densely populated centers, demanded that all sites for cheap houses be provided with sanitary services, suggested a modification of the building codes with a view to greater economy in construction, indicated the advisability of a National Home Bank, and pointed out the desirability of building nocturnal refuges for the tramps found in all large cities.

5. Educating the Public. The Congress recommended periodical exhibitions and competitions in "architecture and applied arts," museums for drawings, better facilities for the visiting and studying of public monuments, annual prizes for the best executed buildings, and a more intelligent consideration of architecture by the press.

6. Professional Responsibility of the Architect. The Congress declared "that as an architect is a professional who possesses all the artistic, scientific, judicial and economic knowledge necessary to be able to design architectural works, and have them executed under his direction, the Congress recommends to the approval of the Governments of American countries, the indispensability of defining the legal responsibility of an architect, similarly to that established for other professions whose practice is controlled by law, specifying and covering clearly the responsibility of said professional and of contractors."

7. Architecture should be taught in special schools, "in an atmosphere absolutely distinct from the purely scientific predominating in the Faculties of Science, or the purely artistic in the Fine Arts Schools," affirmed the Congress.

A history of American architecture, the Congress resolved, is a necessary addition to the teaching of architecture.

8. The Congress decided to approach the various governments with a view to inaugurating periodical meetings of professors and students of Architecture with the idea of creating a real American professional solidarity.

9. As means to stimulating building the Congress recommended the taxation of unused building sites, exemption from duty on indispensable materials necessary to construction, reduced freights on building materials, modification of building laws, the suppression of all building materials "trusts," the training of workmen in industrial schools, and an improved system of mortgage credits.

Correspondence

On Increasing the Institute's Revenue

San Francisco, *Oct. 18, 1920.*

To the Editor of the Journal:

Your footnote inviting correspondence on Mr. Coxhead's proposal for increasing the activities of the Institute as published in your October number prompts me to observe that the idea that the capable should support the incapable is not new; its current application in Russia is instructive, but does not inspire me to believe that it would benefit the Institute.

Very truly yours,

Willis Polk.

St. Louis, Mo., *Oct. 19, 1920.*

To the Editor of the Journal:

The letter of Mr. Ernest Coxhead published in the October number suggesting an increase of revenue is of timely interest. If a program in budget form could be worked out showing the most desirable activities that might be required, together with the cost of conducting them, it would be of value and would enable the Institute to carry on an intelligent campaign. Additional funds are undoubtedly necessary and could, I believe, be secured if the needs were demonstrated to the members and assurances given that the increased activities would be of value.

Yours very truly,

E. J. Russell.

Houston, Texas, *Oct. 20, 1920.*

To the Editor of the Journal:

I read with a great deal of satisfaction the article in the October issue of the Journal, by Mr. Coxhead, relative to a plan for increasing the activities of the Institute. I believe that the plan suggested by him is worthy of the most serious consideration and that it should be viewed from all the different angles by members of the Institute before the next annual Convention. There I would like to see it discussed and, if found agreeable to the majority, passed and tried out.

Very truly yours,

Olle J. Lorehn.

News Notes

Delegates' expenses to Institute Conventions were discussed at the last meeting of the Philadelphia Chapter. Perhaps the time is coming, in view of the increased cost of traveling, when the number of delegates will have to be reduced. It is a difficult problem to solve.

SMALL HOUSE Service Bureaus, after the model instituted in Minnesota and described in these columns are being discussed in several chapters.

PHILADELPHIA has a new charter empowering the Mayor to appoint a city planning commission. At its October meeting the Philadelphia Chapter warmly approved the municipal conduct of many public enterprises during the last year, and urged the Mayor to at once appoint the commission on city planning, believing that by this means he can insure the ultimate success of the great projects he has initiated during his far-sighted and successful administration.

REGISTRATION of architects in New South Wales, as announced in the speech of the Governor at the opening of Parliament, will be considered as a non-party measure.

EXTORTION and intimidation, fraud and corruption, robbery and graft, are being brought to public light in the investigations of conditions in the building industry in New York City now being made by a special committee of the New York State Legislature. To those who have long been familiar with these conditions, nothing new has been brought to light. It is the old story of tribute, wrung from the hands of all concerned, until, emboldened by their success and their power, the piratical crew overreached itself. In this case the culmination came with the proposals for building the new Court House—long a subject of acrimonious controversy—and the public resentment over the housing shortage has apparently brought about a condition favorable to complete exposure of the guilty. But political pressure of the heaviest kind is being used, it is said, to defeat the investigators and protect the pirates, so that the result of the crusade is still doubtful, as we go to press. In our nest issue we expect to present a serious study of the New York City building industry, as it looks in the light of the Lockwood-Untermeyer investigation.

TWO MEETINGS of the Minnesota Chapter were devoted to a discussion of the Minnesota State Federation of Architects and Engineers, and it was resolved that the Chapter become a member of that body.

WHETHER it would be possible to reconstruct the tenement blocks of New York City was the subject of a competition, the program for which was published in the JOURNAL. The awards disclosed several meritorious rearrangements of the old law tenements, but none of them appear to be practical under our investment system. A year ago the rooms in the old blocks rented for an average of $4.50 a month; today the average is about $5.00. If the rents were raised to $15.00 per room per month, the reconstruction work could be carried out at a profit, but this would mean that the present occupants of the block would have to move since they cannot pay the economic rent required.

It is believed by some that the old blocks could be demolished and rebuilt at less expense than is involved in the reconstruction, but there seems little hope that either method would improve the living conditions of the present occupants who are now paying about the maximum rent possible to them.

SOUTH AUSTRALIA has lent the services of its noted town planning adviser, Mr. Charles C. Reade, to the Malay States, which indicates that the problems of housing and urban growth are everywhere seeking solution.

QUANTITY Surveyors in New South Wales asked for an increase in fees, following on the increase of architects' fees recently promulgated by the New South Wales Institute of Architects. An increase was granted and it was resolved that the Institutes of Architects and Quantity Surveyors convene jointly for the purpose of discussing the question of making quantities a part of the contract.

RELATIONS between architects and draughtsmen is the subject of a circular letter sent by the Secretary of the Institute to all Chapters. It is urged that the Chapters take the initiative in developing conferences and discussions on this question in order that there may be an intelligent opinion expressed at the next Convention.

MEETING for three sessions at Bozeman, the Montana Association of Architects then adjourned for a fourth session at the Old Faithful Inn in the Yellowstone National Park, where, as the minutes record, the meeting halted twice in order that the delegates might watch Old Faithful shoot its jet of hot water a hundred and fifty feet in the air. The meeting resolved to ask the State Board of Education to establish an Engineering Experiment station at Bozeman in order that architects might have means for making tests of materials; it decided to let electrical contracts direct, wherever possible, and in other cases to require that the sub-contractor be approved by the architect; its Educational Committee reported that as a result of a conference with the State College authorities, changes were to be made in the curriculum of the architectural courses, and Mr. Fred F. Willson reported to the members on the Annual Convention of the Institute at Washington, to which he was a delegate from the Montana Association. The date of the annual meeting was changed to January first, and Mr. Willson was elected to the new office of Vice-President.

JOINT REGISTRATION of architects and engineers is proposed in Minnesota and the Chapter has duly approved the bill as drawn.

SPOKANE, Washington, appointed a jury to select the most noteworthy buildings, homes, and gardens, within a radius of fifteen miles. The Jury was composed of A. E. Doyle, Portland; Arthur Loveless and Carl Gould, Seattle, all members of the Institute. They acted with Charles Cheney, Town Planning advisor to Portland and Spokane, and George W. Fuller, librarian at the Spokane Public Library, and picked out what were considered the ten most notable buildings, the three most notable examples of landscape architecture, and the five most notable small houses and gardens. The residents of the city were invited to make similar selections and prizes were offered to those whose choices came nearest to the choice of the jury. Prizes were also offered to students in schools.

NEWS NOTES

PROPOSING an amendment to the present registration laws, the Oregon Chapter suggests that all plans for buildings involving structural difficulties bear the signature of either an architect or an engineer.

GLASGOW, Scotland, prepares to spend 4,300,000 Pounds in the erection of 4,613 houses, embracing 15 different groups. Mosspark, the largest group, has 1,500 houses of which about 1,000 are cottages, chiefly in blocks of two.

ENGLISH real estate agents have not been slow to appreciate the value of aerial photographs in selling property. Illustrations of this character have begun to appear in the newspapers and magazines.

LICENTIATES, a large class of members of the R. I. B. A., are proposing to organize for the purpose of advancing their "interests and those of architects generally." It seems a curious commentary. Apparently it is assumed that in this manner there will be obtained a more vital and representative opinion from this class of members. Perhaps the ever recurring movement toward Professional Unity in England has been responsible for the Licentiates organization. The President of the R. I. B. A., Mr. John W. Simpson, has bestowed his blessing upon the body, according to the Architects' Journal.

THE DOME of St. Paul's is reported to have subsided recently, while several new fissures and cracks have appeared in the structure. The repairs which have been under way since 1913 are still in progress.

A RUBBER-TIRED WORLD is indicated, says the *Bulletin* of the Boston Society of Architects, when it calls attention to the permits issued in Boston from January 1 to October 1, 1920, as follows:

Dwellings.		*Garages.*	
First Class.....	2	First Class.....	180
Second Class.....	4	Second Class.....	75
Third Class.....	72	Third Class.....	185
	78		440

CAREFUL computations of the housing shortage in New York City reveal the following: There are 980,000 apartments and in March 1916, the percentage of vacancies was 5.69. In April 1920, the percentage was 0.36, or 3,541 apartments, all but 438 of which were in old law tenements. To care for what is called the normal rate of growth there were needed in New York City from January 1, 1917 to July 1, 1920, no less than 75,309 apartments. During this period there were built 20,629, and there were demolished or converted 10,654, leaving a net shortage for the period of 64,334, as such shortages are computed under our present system of abnormal urban expansion. (The real shortage of course, is in the people in the country.) Of the 980,000 apartments in New York City, about 500,000 are in old law tenements, and of this number, at least one half represent apartments which are unfit for human habitation, basing the requirements as low as the standard embodied in the Tenement House Law passed by the New York State Legislature ten years ago—standards which are commonly recognized as being well below those of decent citizenship.

CHANGING the Schedule of Charges was discussed by the Connecticut Chapter at its October meeting and it was the sense of the meeting that if the owner was to employ and pay for engineering services the present rate was high enough, but that it would be much more businesslike for architects to furnish complete service, increasing the fee to a point where the expense could be borne out of the fee.

PARIS is generally thought to be *hors concours* in the treatment accorded architects by the authorities. It may therefore occasion some surprise in American professional circles to learn that the method of selecting an architect for public school work in Paris is to ask him to prepare plans and specifications at his own risk and perils on the chance that if the appropriation goes through he may get the job. It sounds like the United States, except that in Paris it is almost certain that a competent man will be offered the job, whereas in the United States such a result is very far from certain.

SONIA SEROVA danced for the members of the Architectural League of New York on the first Ladies' Night of the season, and during Christmas Week the League will accord the dance another appreciation. It seems a pleasant sign that architects should be willing to lend a hand to the establishment of another art, even while they ask for help in establishing their own. But every art helps every other art. No encouragement is ever thrown away.

JURISDICTIONAL Awards were discussed at the last meeting of the Southern California Chapter where it was reported that the Wisconsin Chapter had also protested against the action taken by the Institute in the last Convention and had requested that the subject be again brought up for discussion at the next convention. It was also reported that at the annual convention of the American Society of Civil Engineers held in Portland, Oregon, in August, a resolution was passed repudiating any real or implied indorsement of decisions of the Board of Jurisdictional Awards and of "any similar affiliations in the future."

RICHARD WHITEING, author of "No. 5 John Street," "The Island," "The Yellow Van," and other works of like import, lately wrote for the Manchester *Guardian*, under the title of "A Lordly Pleasure House," an account of the recent sale of the house of Sir Lawrence Alma Tadema's house, which is of such interest that we reprint a good deal of it, as follows:

"A few days ago they were selling Sir Alma-Tadema's house at St. John's Wood. It was to be knocked down by auction, and that meant division into lots, and this meant its dispersal to the four quarters of the globe. For it was one entire chrysolite of perfect beauty, at worst the generous "folly" of a man of genius whose dreams surpassed those of the "Arabian Nights." He spent seventy thousand pounds on it. How much it realised is not yet stated but the vendors took care to let it be known that their expectations stood at less than half of that sum. As it lay nestling in the foliage of its garden it was far from the madding crowd, as they estimate disturbance in St. John's

Wood. Every square inch of its acre or so of enclosure has been laboured by the designer into a perfect blend of grace. He began by buying the freehold of the site, and then giving the reins to his fancy. When once you had crossed the threshold, you were in Elysium. His architecture was, like his painting, in its inspiration mainly that of the Roman conquerors of the world. The front door could not be like other front doors: it was set in a frame of bronze cast from a house in Pompeii. The very knocker dared you to touch it for commonplace uses. The entrance hall was floored with Persian tiles—spoil, no doubt, of a Roman raid,—and this led to an inner hall which was the key to the whole conception. Radiating from it, by way of a palm-house or winter garden, there were studios No. 1 and No. 2, with others in reserve.

A private library and writing-room followed en suite; but how the artist or anybody else could have ventured to write or read in it passes comprehension. Every square inch of its detail was a masterpiece of the most delicate handling, compelling attention, overwhelming in its pro-protest against the nominal business in hand. The Grand Studio exercised the same mastery—how work in a temple apsed in shining aluminium and hung with Tunisian embroideries? The raw light of day was tempered in its effect by passing through windows of thin onyx which steeped it, at need, in gold. The Second Studio would have been an easy first in competition with any other studio in the world. This was the workshop of Lady Alma-Tadema, an artist like the "maker" of the house. "When friends meet, hearts warm" was the legend over the door; but do they when the meeting is in places like this? And then the best bedroom—white and fine old gold and rare Japanese paper. Was the slumber sound? Be sure the Devonshires slept no better for the Malachite Room at Chatsworth; but the other day they found the big conservatory so heavy on their hands that they blew it up with gunpowder. One may imagine Tadema glad to compound at times with his mere "Good Bedroom No. 3." "No. 7" perhaps would have been still more to the purpose as about the only "cubby" one in the place. As for the garden, it seemed to make the whole earth an Eden, for the most limited enclosure of greenery with nothing visible beyond is a practical infinitude. The awful shock of disillusion came only when you left the premises to encounter the facade of the Eyre Arms.

I have seen many studios of note built to dazzle—that of the Russian artist Verestchagin, for instance, where the "feature" was a central support turning on a huge swivel, so that the whole structure might keep pace with the light of the sun. But that was all: the rest was like any other studio, except in its immense size. Makart's, again on the colossal scale, in its keeping with itself and its surroundings was but bric-a-brac without a purpose. Here you might find the little man toiling away at his immense canvas of the entry of Charles V into Antwerp, which took Paris by storm at one of the great international exhibitions. It suggested a fly on a cathedral window when he was perched on his ladder in its upper reaches. Of course his hero was but the conventional one of history, the *preux chevalier* of empire and of romance. The later and the more authentic version of him is that of a bigot of commonplace abilities and melancholy temperament, with the heavy jowl and furtive glance and the tell-tale thick Austrian upper lip that marks the dynasty to this day. The Russian Court painter Count Zichy could never dream in architecture. He used to complain that his august patrons pinned him down too closely to the sordid details of their costumes, button by button, as expressive of their souls. Meissonier was a sort of rival of Tadema as his own architect; but how poor was the result in comparison. It was the same with Leighton— a few Persian tiles, though good ones, the tiny fountain, and that was all.

And so still comes the insistent question, Was the arch-contriver of all these splendours, Tadema, the better for his labours, or the other way? Some of us thought that the house tyrannised over its owner, and that his figures tended to become mere accessories. Was not Fra Angelico more wise and happily inspired in his dread of luxury and of all earthly magnificence as detrimental to his art? How touching his scare when the Pope was for making him Archbishop of Florence, and his gratitude when he escaped. Art, he said, had need of quiet and of a life without cares. All he wanted was the full possession of his own soul. He was never seen in anger; he always began work with a prayer. His bare cell was his *multum in parvo* for architecture and fashion and all the decorative uses of life. Many of his Italian comrades in art were of much the same way of thinking. Donatello kept his bit of money in a basket strung from the ceiling, leaving his workmen and his friends to help themselves at need. They gave him a house, but he soon returned it with thanks; its little worries loomed so large in his mind. However, the Medici were at hand to see that he did not starve. Vasari's very Bohemians dyed in the wool may have had something of this kind of secret in their minds. His Piero came at last to live more like a beast than a man in his passion for what he regarded as non-essentials to his art. No spring cleanings for him: he would never have his rooms swept, he ate only when he felt hungry, let his garden become a wild, lived on hard eggs which he cooked—happily in their shells—along with his varnishes. All else but this and his work he held as mere slavery. Who can say which is the better frame of mind—"house pride," as they say in the North, or "house disdain?" Each has its pitfalls in extremes.

But Tadema's, if an error at all, was a glorious one, above criticism in its balance and completeness. It ought to have been acquired for the nation, like the Palace of Versailles, immeasurably inferior to it in the same line. Failing that, the millionaire American would assuredly have come to the rescue had he been able to remove it stone for stone across the Atlantic. To talk of disintegrating "lots" in relation to a gem of this sort is as though the auctioner were smashing a Koh-i-noor under his hammer. True harmonies are inseparable; not one particular can be spared without defocusing the rest. France would never have let such a thing go, if she had starved for it; she preserves Cluny better than she preserves Notre Dame. Alas! Tadema's Lordly Pleasure-house is past praying for. "So now, ladies and gentlemen, for lot No. 2."

Shall we ever see its like again?

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:

BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

American Walnut. (19a)—The American Walnut Manufacturers Association, 616 South Michigan Avenue, Chicago, Illinois, have published an attractive booklet entitled, "AMERICAN WALNUT,"—not a technical treatise on the uses and physical characteristics of walnut, but largely a history of the use of walnut for furniture from the earliest periods down to the present time. It also contains several reproductions of the grain or figure possible to obtain with this wood and it is interesting to note that in the main figured walnut is obtained from the stumps of the trees.

Identification of Woods. (19a)—The Forest Products Laboratories have prepared a valuable booklet entitled "Key for the Identification of Native Woods Used for Chairs and Other Furniture." Included in the list of woods described is practically every native wood used for interior finish. The descriptions are intended to make possible the identification of the various woods without the aid of a hand lens.

The following quotation is typical of the character of the information given. "RED GUM.—Heartwood light reddish brown. Sapwood wide. Annual rings clearly defined by a thin darker reddish brown layer. Rays fine but distinct, conspicuous on quartered cuts because of darker color. Wood hard, comparatively difficult to cut across the grain. Pith flecks rare. Rays appear to be not very close together as compared with soft maple. Wood heavy, strong and hard. 43."

How to Distinguish Mahogany and Walnut from Red Gum. (19a)—Technical Notes No. 103, Forest Products Laboratories, states that Red Gum, properly finished, can be made to look so much like either Mahogany or Walnut that only careful observation can distinguish it from the substitute. The distinct difference, however, between Red Gum and Mahogany or Walnut lies in the size of the pores.

Says the note: "In mahogany, Circassian walnut, black walnut, the pores are so large that they can be seen very distinctly on a smoothly-cut surface of the end grain, where they appear as minute openings smaller than pin holes but visible without magnification. On surfaced faces the pores appear as fine grooves, running parallel with the grain. They are even visible through the varnish, appearing as dark lines. "In red gum the pores are much smaller and can be seen only with a magnifying glass."

Sound Transmission of Solid Plaster and Gypsum Block Partitions. (39a)—The theory of the subject of sound proofing in buildings is incomplete; practical attempts to secure adequate sound-proofing have not been attended with certainty of success. Experimental work on the problem has been done by F. R. Watson, Professor of Experimental Physics, University of Illinois, to secure definite data on transmission of sound through various building materials ranging from thin felt to solid plaster partitions. There are two types of sound to be considered. One type includes sounds generated by a violin, or voice, such as are generated in, and travel through the air to the boundaries of a room, and are very largely reflected when they meet continuous walls of some rigidity. Other sounds that are generated in the building structure, such as the sounds from a piano or cello resting on the floor or the vibrations of a motor, are transmitted through the continuity of building structure and are more difficult to stop than the first type of sound. Professor Watson's experiments deal with the first type of sound to secure data that can be used intelligently in designing sound proof constructions for insulating both types of sound.

The conclusions reached are that, for sound traveling through the air, a 2″ solid plaster partition on metal lath is a more effective non-conductor than either 3″ gypsum block partitions plastered both sides or 2″ solid plaster partitions on plaster board, and that the filling of the holes in 3″ plaster blocks materially decreases the sound conductivity.

The following abstract from Professor Watson's report describes the phenomena of sound conductivity of partitions:

In case the partition is limited in extent and fastened at the edges, as it must be in any form of partition construction, the sound pressures must overcome not only the inertia of the plaster but also its rigidity or its resistance to being distorted. A sound pressure applied perpendicularly to the surface causes a small displacement which is greatest at the center and zero at the edges, so that the partition becomes slightly bulged with a small increase in area. The less a wall gives under such a force, the more efficiently will it stop sound. It should be remembered in this connection that the pressures due to sound are not static but are rapidly alternating pressures and rarefactions of very small amplitude.

Another factor affecting the transmission of sound through a partition is the character of the structure. A thick, homogeneous structure has the advantages of greater inertia and rigidity compared with a thin partition. The use of an air space completely separating two members of a double partition would have a marked action on sound and would stop, according to theory, many times more sound than a single partition whose thickness equals the sum of the thicknesses of the two members of the double partition. This is due to the abrupt change in elasticity and density from the plaster to air and vice versa from air to plaster as the sound strikes the sound member. In case the air space is bridged over, as it is usually in practical constructions at the ceiling and floor and at other points, this theoretical efficiency is greatly diminished because the vibrations travel easily along the paths afforded by the continuity of solid materials. The "bridged over" partition thus should be considered as a unit and its efficiency in stopping sound judged mainly on its weight and rigidity.

The core of a partition is another feature of structure that affects the transmission. It may be of such a nature as to increase the strength of the partition, or it may be simply the central part of a homogeneous medium or it may be considered as separating the partition in two parts so that the structure is weaker than a homogeneous unit. A partition with increased strength due to the core, such as steel reenforcement, would be more rigid in stopping sound pressures than an equally thick homogeneous partition. The homogeneous partition in turn would be more efficient in stopping sound than the double partition weakened by the core. The latter, however, has some possible advantage in reflecting sound because of the change in elasticity and density in the core. An extreme illustration of this kind would be the case where the core was made of hairfelt so that the action in stopping sound would be analogous to an air space. If the core consisted of a sheet of thick paper, making a continuous contact with plaster on both sides with no air space, this efficiency is largely lost and the small gain due to reflected sound would appear to be overcome by the loss in rigidity of the structure.

Specifications for Paint.—The United States Interdepartmental Committee on Paint Specification Standardization created on the recommendation of the Secretary of Commerce and composed of representatives of the War, Navy, Agriculture, Interior, Post Office, Treasury and Commerce Departments, the Railway Administration, the Panama Canal, and the Educational Bureau of the Paint Manufacturers Association of the United States, has so far established the following standards. The specifications printed below are taken from circulars of the United States Bureau of Standards, Nos. 89, 90, 91, 93, 94 and 98.

NOTE.—These specifications are published as containing much information about materials and the quantities thereof used in the manufacture of good paint under current practice. Of course, the important consideration about all paint is not so much the composition of the paint as the character of the cured coating. Theoretically, a specification for paint should describe the results to be secured rather than the means of securing them. Indeed, the architect is interested primarily in results, and the wider the latitude allowed in his specification for the use by the manufacturer of his skill, judgment and ingenuity, without permitting pure experimentation, the greater the opportunity for improvement and development in the art of paint making. In adition to the foregoing specification the circular includes the specifications for the method of detection and removal of separated water, sampling, laboratory examination and basis of purchase.—*The Editors.*

White and Tinted Paints on a White Base. Semipaste and Ready Mixed. (25a)

NOTE.—The belief is expressed that the following specification admits practically all high-grade paints generally available in the United States, and which are therefore obtainable without requiring manufacturers to make up special lots:

White and tinted paints made on a white base may be ordered either in the form of semipaste pigment ground in linseed oil, or of ready-mixed paint. The semipaste shall be purchased by net weight, the ready-mixed paint either by weight or volume (231 cubic inches to the gallon).

(*a*) **Pigment.**—The Pigment shall be composed of:

	Maximum %	*Minimum %*
White lead (basic carbonate, basic sulphate, or a mixture thereof)	70	45
Zinc oxide (ZnO)	55	30
Silica, magnesium silicate, aluminum silicate, barium sulphate, pure tinting colors, or any mixture thereof	15	0

In no case shall the sum of the basic lead carbonate, basic lead sulphate, and zinc oxide be less than 85 per cent. The lead and zinc pigments may be introduced in the form of any mixture preferred of basic carbonate white lead, basic sulphate white lead, zinc oxide, or leaded zinc, provided the above requirements as to composition are met.

(*b*) **Liquid.**—The liquid in semipaste paint shall be entirely pure raw or refined linseed oil; in ready-mixed paint it shall contain not less than 90 per cent pure raw linseed oil, the balance to be combined dryer and thinner. The thinner shall be turpentine, volatile mineral spirits, or a mixture thereof.

(*c*) **Semipaste.**—Semipaste shall be made by thoroughly grinding the pigment with pure raw or refined linseed oil. The semipaste as received and three months thereafter shall be not caked in the container and shall break up readily in linseed oil to form a smooth paint of brushing consistency. It shall mix readily with linseed oil, turpentine, or volatile spirits, or any combination of these substances, in all proportions without curdling. The color and hiding power when specified shall be equal to that of a sample mutually agreed upon by buyer and seller. The weight per gallon shall be not less than 19.0 pounds. The paste shall consist of:

	Maximum %	*Minimum %*
Pigment	77	73
Linseed oil	27	23
Moisture and other volatile matter	0.7	..
Coarse particles and "skins" (total residue retained on No. 200 screen based on pigment)	0.5	..

The No. 200 screen is the same as the screen formerly known as 200 mesh.

(*d*) **Ready-Mixed Paint.**—Ready-mixed paints shall be well ground, shall not settle badly or cake in the container, shall be readily broken up with a paddle to a smooth uniform paint of good brushing consistency, and shall dry within 18 hours to a full oil gloss, without streaking, running, or sagging. The color and hiding power when specified shall be equal to those of a sample mutually agreed upon by buyer and seller. The weight per gallon shall be not less than 15¾ pounds. The paint shall consist of:

	Maximum %	*Minimum %*
Pigment	66	62
Liquid (containing at least 90 per cent linseed oil)	38	34
Water	0.5	..
Coarse particles and "skins" (total residue retained on No. 200 screen based on pigment)	0.5	..

Specifications for Red Lead, Dry and Paste. (25a)—Red lead may be ordered in the form of dry pigment or of paste ground in pure raw linseed oil. Two grades of pigment, known as 85 and 95 per cent, may be ordered, and each contract shall state which grade is desired. Material shall be bought by net weight.

Avoid storing red lead paste in places of high temperature, as heat accelerates the tendency of this material to cake or harden.

Purchasers are cautioned not to buy red lead in paste form unless it is to be used within three months after shipment by the contractor.

(*a*) **Dry Pigment.**—The pigment shall consist entirely of oxides of lead free from all adulterants and shall meet the following requirements:

	85% grade *Per cent*	*95% grade* *Per cent*
True red lead (Pb_3O_4), not less than	85	95
Total impurities, including moisture, soluble matter, water and matter insoluble in a mixture of nitric acid and hydrogen peroxide, not more than	1	1
Remainder shall be lead monoxide (PbO)		
Coarse particles: Retained on Standard No. 200 screen, not more than	0.3	0.3

The No. 200 screen is the same as the screen formerly known as 200 mesh.

When mixed with raw linseed oil, turpentine, and liquid dryer in the proportion:

Dry red lead	pounds	20
Raw linseed oil	pints	5
Turpentine	gills	2
Liquid dryer	gills	2

the resulting paint when brushed on a smooth vertical iron surface shall dry hard and elastic without running, streaking, or sagging.

(*b*) **Paste.**—The paste shall be made by thoroughly grinding the specified grade of dry pigment with pure raw or refined linseed oil. The paste, as shipped by the contractor, and for three months thereafter, shall not be caked in the container and shall readily break up in oil to form a smooth paint of brushing consistency. The paste shall have the following composition:

	Maximum %	*Minimum %*
Pigment	94	92
Linseed oil	8	6
Moisture and other volatile matter	0.5	..
Coarse particles and skins (total residue on No. 200 screen)	0.5	..

When mixed with raw linseed oil, turpentine, and liquid dryer in the proportions

Red lead paste	pounds	20
Raw linseed oil	pints	4½
Turpentine	gills	2
Liquid dryer	gills	2

the resulting paint when brushed on a smooth vertical iron surface shall dry hard and elastic without running, streaking, or sagging.

Specifications for Ocher, Dry and Paste (25a).—Ocher may be required in the form of dry pigment or paste ground in linseed oil; it shall be prepared in accordance with the most improved methods. Grinding in oil shall be thorough and the vehicle shall be pure raw linseed oil. The material shall be bought by net weight.

(*a*) **Dry Pigment.**—The pigment shall be hydrated oxide of iron permeating a siliceous base, and shall be free from added impurities. It shall conform to the following requirements:

Color, Color Strength, Tone.—Equal to sample mutually agreed on by buyer and seller.

	Maximum %	*Minimum %*
Coarse particles: Retained on standard No. 200 screen	0.0	..
Iron oxide	..	17
Lime (CaO)	5	..
Lead chromate	None	..
Organic colors	None	..

No. 200 screen is the same as screen formerly known as 200 mesh.

(*b*) **Paste.**—Ocher in paste form shall consist of:

	Maximum %	*Minimum %*
Pigment	71	69
Linseed oil	31	29
Moisture and volatile matter	0.5	..
Coarse particles and "skins" (total residue on No. 200 screen) based on pigment	0.5	..

Specifications for Iron-Oxide and Iron-Hydroxide Paints. (25a)—This specification applies to iron-oxide and iron-hydroxide paints of red and brown colors. The paint may be ordered in the form of either semipaste paint or ready-mixed paint. The basis of purchase may be either by net weight or by volume (231 cubic inches to the gallon).

(*a*) **Pigment.**—The pigment in both semipaste and ready-mixed paint shall be very finely ground iron oxide, iron hydroxide, siliceous minerals or a mixture thereof, to which carbon pigment may be added, if necessary, to produce the required color. It must be free from organic coloring matter (dyes or lakes). The pigment shall show on analysis not less than 30 per cent of ferric oxide (Fe_2O_3). The total of the ferric oxide, insoluble siliceous matter, and loss on ignition shall be not less than 99 per cent.

(*b*) **Liquid.**—The liquid in semipaste paint shall be entirely pure raw or refined linseed oil; in ready-mixed paint it shall contain not less than 75 per cent pure raw linseed oil, the balance to be combined dryer and thinner. The thinner shall be turpentine, volatile mineral spirits, or a mixture thereof.

(*c*) **Semipaste.**—Semipaste shall be made by thoroughly grinding the pigment with pure raw or refined linseed oil.

The semi-paste as received and three months thereafter shall not cake in the container and shall break up readily in linseed oil to form a smooth paint of brushing consistency. It shall mix readily with linseed oil, turpentine, or volatile mineral spirits, or any combination of these substances, in all proportions without curdling. The color and hiding power when specified shall be equal to that of a sample mutually agreed upon by buyer and seller. The weight per gallon shall be not less than 13½ pounds. The paste shall consist of:

	Maximum %	*Minimum %*
Pigment	72	68
Linseed oil	32	28
Moisture and other volatile matter	0.7	..
Coarse particles and "skins" (total residue retained on No. 200 200 screen based on pigment)	0.5	..

The No. 200 screen is the same as the screen formerly known as 200 mesh.

(*d*) **Ready-Mixed Paint.**—Ready-mixed paints shall be well ground, shall not settle badly or cake in the container, shall be readily broken up with a paddle to a smooth uniform paint of good brushing consistency, and shall dry within 18 hours to a full oil gloss, without streaking, running, or sagging. The color and hiding power when specified shall be equal to those of a sample mu-

tually agreed upon by buyer and seller. The weight per gallon shall be not less than 12 pounds. The paint shall consist of:

	Maximum %	*Minimum %*
Pigment	57	53
Liquid (containing at least 75 per cent linseed oil)	47	43
Water	0.5	..
Coarse particles and "skins" (total residue retained on No. 200 screen based on pigment)	0.5	..

Specification for Black Paint. (25a)—Black paint may be ordered in the form of either semipaste paint or ready-mixed paint. The basis of purchase may be either by net weight or by volume (231 cubic inches to the gallon).

(*a*) **Pigment.**—The pigment in both semipaste and ready-mixed paints shall consist of carbon, lead oxide, insoluble siliceous material, and, at the option of the manufacturer, oxide of iron. The pigment shall show on analysis not less than 20 per cent of carbon and not less than 5 per cent of lead oxide calculated as Pb_3O_4. The total of the lead oxide, iron oxide, insoluble siliceous material, and loss on ignition shall not be less than 99 per cent.

(*b*) **Liquid.**—The liquid in semipaste paint shall be entirely pure raw or refined linseed oil; in ready-mixed paint it shall contain not less than 80 per cent pure raw linseed oil, the balance to be combined dryer and thinner. The thinner shall be turpentine, volatile mineral spirits, or a mixture thereof.

(*c*) **Semipaste.**—Semipaste shall be made by thoroughly grinding the pigment with pure raw or refined linseed oil.

The semipaste as received and three months thereafter shall not cake in the container and shall break up readily in linseed oil to form a smooth paint of brushing consistency. It shall mix readily with linseed oil, turpentine, or volatile mineral spirits, or any combination of these substances, in all proportions without curdling. The color and hiding power when specified shall be equal to that of a sample mutually agreed upon by buyer and seller. The weight per gallon shall be not less than 10.0 pounds. The paint shall consist of:

	Maximum %	*Minimum %*
Pigment	52	48
Linseed oil	52	48
Moisture and other volatile matter	0.7	..
Coarse particles and "skins" (total residue retained on No. 200 screen based on pigment)*	0.5	..

*The No. 200 screen is the same as the screen formerly known as 200 mesh.

(*d*) **Ready-Mixed Paste.**—Ready-mixed paint shall be well ground, shall not settle badly or cake in the container, shall be readily broken up with a paddle to a smooth uniform paint of good brushing consistency, and shall dry within 18 hours to a full oil gloss, without streaking, running, or sagging. The color and hiding power when specified shall be equal to those of a sample mutually agreed upon by buyer and seller. The weight per gallon shall be not less than 9 pounds. The paint shall consist of:

	Maximum %	*Minimum %*
Pigment	32	28
Liquid (containing at least 80 per cent linseed oil)	72	68
Water	0.5	..
Coarse particles and "skins" (total residue retained on No. 200 screen based on pigment	0.5	..

Specifications for Volatile Mineral Spirits for Thinning Paints. (25a)—These specifications apply only to petroleum distillates, known as mineral spirits. The oil delivered under these specifications shall be genuine and shall conform to the following requirements:

Color—shall be "water white."

Spot Test—shall evaporate completely from filter paper.

Flash Point—shall not be lower than 30 degrees C (86 degrees F) when tested in a closed cup tester.

Sulphur—shall be absent, as determined by the white lead test.

Distillate below 130 degrees C (266 degrees F) shall not exceed 5 per cent.

Distillate below 230 degrees C (446 degrees F) shall be not less than 97 per cent.

Reaction shall be neutral.

Monel Metal.—The International Nickel Co., publish a twenty-eight page (not Standard 8½" x 11" size) booklet describing in detail the physical characteristics and uses of Monel Metal, which is an alloy of nickel and copper, containing about 67% nickel, 28% copper and 5% other elements. It takes a high polish and closely resembles nickel in color. Its tensile properties are similar to thoss of steel. This alloy is supplied in the form of rods, sheets, wire and castings and its use is advocated where strength is to be combined with high resistance to corrosion.

Permeability of Stone and Concrete. (4c)—The Bureau of Standards (Bulletin No. 41), publishes the following description of some tests made with a new apparatus for determining the rate of penetration of water through concrete and other permeable materials:

"The apparatus is so constructed that it is not necessary to mold the test piece in any particular shape, but any slab having one fairly smooth face may be tested. Only a few seconds are required for placing and adjusting the test specimen. This will permit specimens to be cut from walls or other portions of structures for tests. Tests so far made, while more in the nature of a try-out of the apparatus than the materials used, have furnished some rather interesting results.

"In the following table the results of tests on samples of building stones from various quarries, as well as on some mortar and concrete specimens, are shown. The specimens varied fom 1¼" to 2½" in thickness and pressure was applied over an area of 25 square inches.

Test specimen.	Absorption in 24 hrs.	Thickness.	Water pressure.	Time required for penetration through wall.
Limestone 50	5.80%	1⅝"	60 lbs.	10½ minutes.
Limestone 7E	3.10%	1 13/16"	...do....	11 minutes.
Limestone 8907	4.40%	1⅝"	...do....	19 minutes.
Limestone 9c	4.60%	1⅝"	...do....	2¾ minutes.
Limestone 14F	3.81%	1⅝"	...do....	20 seconds.
Limestone 5G	3.48%	1¼"	...do....	1½ minutes.
Sandstone	5.56%	2½"	...do....	10 seconds.
1:6 Portland. Cement Mortar	7.8%	2"	...do....	3½ hours.
1:1½:2. Concrete	5.8%	2"	...do....	Did not fail in 24 hours when broken through water had penetrated only ½".

"These results appear to bear out conclusions previously drawn in the Bureau's investigation of the durability of concrete in alkali soils that there is no apparent relation between absorption and permeability."

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Shadows and Straws

IN ONE OF HIS lectures, William James records the tale of Margaret Fuller, New England transcendentalist, who is reported to have said, "I accept the universe." And then James goes on to say that someone is said to have repeated her words to Thomas Carlyle, who at once replied, "Gad! she'd better."

It is amusing and not at all improbable, as a tale, but does one, or can any one, accept the universe? Even if it were understandable,—even though it were founded upon a definable principle,—could it be accepted? Who knows? At present, as it passes our comprehension, we accept it, if we do or say we do, because it appears to be impossible to do anything else. But in the last analysis, there is actually no acceptance anywhere, for everyone is bent upon changing it in some manner. The transformation of the universe is indeed the commonest of occupations in this particular fragment upon which we happen to be dwelling. Land and water, mountain and valley, forest and plain, all bear mute witness to man's ceaseless protest over the universe as it is or was, and even as others wish it to be. No one is satisfied with it, not even the most primitive of races.

Dissatisfaction with the universe might easily be said to be the source of all human action. We do not know whether it is right or wrong to be dissatisfied. We believe, however, that it is right, and we applaud that dissatisfaction which spurs men on to endeavor. To what we call Success we give our plaudits and our solemn allegiance. Over what we call Failure we cast the black pall of ignominy. Our standard is a brutal one, merciless, relentless. Succeed or Fail is our command. There is no middle road. Occasionally, when we are in quiet places where we speak the truth that is in us, we let it be known to one another that in our heart we sincerely applaud and revere the effort of our friend who is said to have failed. For his pluck and daring, his energy and courage, his honesty and social-mindedness, we give full vent to that affectionate regard the possession of which we had almost forgotten. Were it not for the strong hold of tradition we should be on the point of voting his life a success. But in the end, returned to the arena of the struggle, girded afresh for our own battle, the old standard quietly prevails and our friend drops into the oblivion of Failure. It well may be, though, that more men there find Peace than do those others find it in the heaven of Success to which we think we have exalted them.

BUT IT IS NOT for amusement that one ventures the suggestion that it might be well, presently, to look a little more closely at the standards by which we judge the effort of men. For example, in a recent contribution in the English press, Sir Leo Chiozza Money, an eminent economist, points out that the estimates for the next English budget carry an item of 22,000,000 Pounds for the Air Forces, a sum nearly as great as was spent upon the entire English Army before the war. More than that he reminds us of what every intelligent person already knows, that the next war will be fought by the engineer and the chemist as war has not yet been fought. The lapse of twenty years he says,—it may conceivably be much less,—will find the nations of the world armed with aerial weapons capable of a kind of destruction the like of which has never been imagined, not even in the most fanciful of romances. And the supreme characteristic of that destruction will involve war, not upon fighting forces but upon peoples, upon towns, upon the old and the young, upon men, women, and children, without discrimination as to age or infirmity.

"The opening of the next war will be of lightning swiftness, with or without a formal declaration," says Sir Leo. Fleets of aerial monsters will unloose destruction upon a scale of terror still unimaginable. Armies and navies will be the forgotten puppets, the ridiculous and abandoned playthings of the childhood of nations. From the air, the ethereal cloud whence we draw the oxygen by which we live, will come death in wave upon wave of silent invisible gases.

These things are being prepared. These dreadful

engines are being designed. Chemist and engineer are straining every nerve and fibre in order to attain—what—shall we call it Success? Or might it be Failure? Must we pass through this bitter ordeal ere we shall learn to distinguish between the two? Probably there is no other way. Very likely we must go clear down into the Valley. We have just passed through the Shadow. But we have not learned.

BUT ALL OF THIS brings architecture face to face with a new problem. Buildings will, in less time than we now suppose, be subject to destruction on a scale far surpassing the most diabolic effort yet invented by infuriate man. Opinions now incline to the belief that it will be utterly impossible to invent a form of construction that will resist aerial bombs, and that even though it were possible, the schemes for the gaseous asphyxiation of humans by the thousand would leave the buildings quite useless. First reliance will of course be placed upon the elaborate systems of aerial defense, an inkling of the costly and intricate character of which may be gained by perusing the story of the aerial defense system of London during the war.

Tomorrow, even today, we must begin to take thought of these new dangers. For strangely enough, while one set of chemists and engineers is at work upon perfecting the destructive mechanisms, another is straining every nerve to devise ways and means for preservation. But here again, it is now generally accepted among scientists, so far as we are able to discover, that building above ground will have to give way to subterranean warrens, artfully connected with the air and fed by vicarious sunlight. Investors, they say, cannot longer take the risk of putting their money into something which may be destroyed utterly at less than a moment's notice. All of which will be true as never before, for while our seaports have at times shivered under the dread of an enemy visitation by sea, it must now be realized that Denver, Colorado, will, in the future, be no safer from destruction than is New York City today.

Hence, in the race between the forces of destruction and preservation, the subterranean warren at present looms large as the answer to the one, just as the winged monster seems the answer to the other. Those urban subways into which we now hurl ourselves twice a day will be amplified to provide traffic routes so far below the surface of the earth as to be completely removed from the effect of aerial bombs or lethal inhalations. All transportation will be carried on by these routes, so that men may journey from Eastport to Los Angeles without ever appearing on earth. Our mines will be tapped laterally, and their hidden wealth transported and transformed subterraneously. Food will be grown in underground gardens whence the topsoil of our planet will all have been removed, leaving the surface of our land a foodless arid desert.

What magnificent vistas of engineering and architectural skill open before our eyes as we contemplate the ultimate complete migration of man below ground, for of course the time is coming when no man shall dare to appear, except in the depths of night, lest he become an immediate victim of the air vultures of the enemy. There may be brief respites, during truces or exhaustion of the foe, but in the end, the outer crust of the globe will have become impossible of human inhabitation. In our dungeons, where engineering skill will oxygenate our lungs and bathe us in a light far surpassing anything that the sun was ever able to produce, we shall be safe. Our intakes for air and our outlets for water and waste will be so skilfully hidden as to be undiscoverable by the enemy. Only,—the dread day will undoubtedly arrive when some daring engineer will invade us by boring from afar, and then,—well, there will be an answer, no doubt. It is high time to be thinking of these things, is it not? In the War Departments of the world, preparations for the aerial Dance of Death are well under way.

It is a curious battle, this war of Success and Failure. Or is it a madness arising out of the fact that we have misnamed the two things?

SOME LITTLE TIME AGO, Lower Merion Township, one of the well-known localities near Philadelphia and a part of what is generally alluded to as the Main Line, called in a group of architects to help in the preparation of a building code. The Philadelphia Chapter of the Institute contributed the architects who were joined by Mr. John Ihlder, the then Secretary of the Philadelphia Housing Association. A code was drafted—it has already been referred to in these columns—and was finally adopted by the Township. It did not embody all the features which had been deemed desirable by those who drafted it, but on the whole it had suffered less than is the usual case, as it passed the scrutiny of citizens with interests at stake.

Not long after the adoption of the code, the community of Haverford was impelled to follow the example. Now, Haverford adjoins Lower Merion and generally speaking their interest might be supposed to be rather closely related. But Haverford, starting with the new Lower Merion Code as a base, is apparently alive to the fact that by making its own code less onerous than that of its neighbors, it will be the more likely to attract building and improve the condition of the holders of idle land. It seems rather difficult to put any other construction upon the contention by Haverford that a code which required only 350 square feet of open land area for any dwelling, whether single or multiple, is a good code. Yet the adoption of such a clause would almost inevitably force a type of building in Haverford such as would quickly repeat the very misery and crowding of those urban spawnings from which the suburbanite had fled in disgust.

We hope that whoever is responsible for the insertion of such a clause in the Haverford building code will be unable to persuade Haverfordians that it is in the interest of the community to adopt it. Undoubtedly it would be for the immediate interest of someone. But quite as undoubtedly it would be for the worst possible interest of Haverford in the long run.

MANY QUESTIONS are being asked about the Building Guilds of England. The answer to all of them, generally, is no more than to say that there are some fifty experiments being carried on in England at the present time. The London Guild, for example, has just concluded a contract for 400 houses, costing 400,000 Pounds, to be built at Walthamstow, near London. Work is to begin at once, and is, indeed, already under way. The contract in this instance creates what might be called a triple alliance. First, there is the Guild which does the work; second, the Cooperative Wholesale Society which supplies the materials, and third, the Cooperative Insurance Society which guarantees the performance of the contract, up to 20 per cent of the estimated cost. The administration is exceedingly democratic, so that the control of the work is really in the hands of all the workers. When the Building Trades Parliament met in November, there was laid before it a complete scheme for the establishment of a National Guild of Builders, but the results of the discussion were not available as we went to press. Tentative plans for Building Guilds in America are being discussed in several places, but it seems doubtful, as yet, whether the American trade union movement is ready for such a forward step.

C. H. W.

British Architects and American Architecture

From an ENGLISH CORRESPONDENT.

AMERICAN ARCHITECTURE is a subject of great interest on this side. Century old cathedrals and other venerable monuments may inspire the young architect, but the work that he hopes and expects to be called upon to perform is mainly of that utilitarian order which has been as yet most completely developed beyond the Atlantic. American department stores, railway stations, skyscrapers and the like are all of them subjects to which frequent reference is made in the technical press on this side, and they have all of them been discussed by the Royal Institute of British Architects and kindred associations.

There was a great deal of consideration of American architecture in the sessions of the R. I. B. A., devoted to the question of higher buildings for London, when Mr. Austen Hall read a paper on the planning of American Department stores, also when there was presented the paper by Mr. Ben J. Lubschez, (Fellow of the American Institute of Architects), the theme of which was the two great railway stations of New York.

American Department Stores

Mr. Austen Hall's lecture was illustrated by lantern slides showing interiors and exteriors of a number of American department stores, and of these stores he gave descriptions of a few of the best known. The store of which he gave the fullest details was Wanamaker's of Philadelphia. He is certainly a very appreciative student of the department of American architecture on which he lectured; he pronounced Fifth Avenue probably the finest street in the world. Generalising on his subject, fresh problems, he told his audience, demand fresh thought, and if we cannot find this for every emergency we shall fail in the service we desire to give. In America, he said, the architect works with certain advantages as compared with his English brother. The first is an immense appreciation of fine architecture by all classes of the public, and the second the consideration by the business man of his building as an investment—something more than an advertisement, and not a tax on his capital. He wishes it fine in every respect. Another advantage of the American architect is that he does not have to work under the utterly out of date building acts which apply on this side.

The discussion which followed was not restricted entirely to architects. Mr. Gordon Selfridge, (an American department store owner who has located in London) led off with some remarks extending what the lecturer had said on the attitude of the American business man towards his store. Mr. Selfridge himself was not in this respect preaching a doctrine differing from what he practises—his store is the finest building of the kind in London. Later in the discussion Mr. Clark, (also of Selfridge's) dotted his principal's "i's" and crossed his "t's." The feature that impressed him most in American stores was, he said, the simplicity of the general treatment, the freedom of motion and the general facilities for departmental planning.

Among architectural critics Mr. Vincent Harris said that America had contributed two essentially modern types of building to the world—the modern store building and the modern office building—and had worked these out to a logical conclusion with a thoroughness

absolutely American. Other critics quite naturally spoke most about the building of department stores in London, but Mr. J. J. Joass reverted to the interest in architecture shown by Americans. When Wanamaker's new building was finished, he said, the store was opened by the President of the Republic attended by a bodyguard of over a thousand U. S. A. troops. This was an astonishing thing for us to listen to.

Mr. Robert Atkinson, F. R. I. B. A., a young architect just returned from a three months' visit to the United States, said the extraordinary efficiency of the American architect was due to education. Perhaps this flattering exordium is as much as it is advisable to give of the remarks he made on this occasion. However, if I may venture to be candid he went on to say that a great part of the success of American building is due to the engineer, who plays a very great part in the planning of the building without getting credit for so doing. The managers of the stores also have a great deal to do with the planning. An interesting point that Mr. Atkinson noted was that in Chicago the lift is so crowded and overcrowded that for the first four or five floors of the department store it has been superseded by the escalator. The escalator is known here but hardly ever installed for a purpose of this sort. With this remark about lifts may be connected another point that came out in the course of the discussion. It appeared that in America the elevator was put a long way from the door, as much as a hundred feet perhaps; the idea being that the customer, in traversing this extensive space, would probably see something on a counter, and buy it before he had time to reflect that he did not want it. But here the lift was put as near as possible to the door so as to avoid unnecessary trampling of the floor by muddy boots.

American Railway Stations

As to Mr. Lubschez's paper on the two great terminal stations of New York, as he could not be present it was read for him by Mr. Arthur Keen, the Honorary Secretary of the Society. On this occasion Professor Adshead led the discussion. He said that he had himself seen these stations just after their completion nine years ago, and he agreed with Mr. Lubschez as to their magnificence and success. In the course of the paper Mr. Lubschez had mentioned that it was a controversial question with American architects whether the use of an ancient motif like the baths of Caracalla for a modern station was legitimate. Professor Adshead said he remembered discussing this question until late in the morning at the Harvard Club with several enthusiasts, and opinion had been far from unanimous that the Pennsylvania station was altogether a success architecturally speaking; but personally, he believed in sacrificing a good deal of what most people called utility in order to create a great impression, and there was no doubt about it, the Pennsylvania station was a most impressive building. Comparing it with the great terminal stations which have been built or rebuilt in London within recent years, Professor Adshead said it had the advantage of a magnificent and symmetrical site. The great London stations suffered from the absence of a fine approach. He thought one of the most interesting and successful parts of the Pennsylvania station was the concourse. Steel had been used architecturally there; he wished engineers here would do something of the same sort.

Of the Grand Central Station, he said, echoing Mr. Lubschez, that it was a very complex station and might be described as a French *tour de force*. It had not the traditional qualities of the Pennsylvania station, but he was not quite sure that it was not architecturally even better; though personally he was not quite satisfied as to the necessity of raising it one story above the street level. This had led to very great complications in regard to the approach.

If this was an encomium, other architects were not so flattering. Mr. W. R. Davidge, speaking as one of those who had visited the stations, confessed himself a little disappointed, certainly with the Pennsylvania station. He recognized the difficulties. When the Hudson river tunnels were made, a new cross country track was opened, making it possible for New York to spread east and west. But the result was that the station was built over what was practically a very deep tube railway. Thus, very great difficulties with regard to the levels had to be dealt with. The architect had evolved a masterly work of art, but the whole of his efforts had been concentrated in the great central concourse. After that concourse, to find the train level itself with narrow platforms and lighted artificially was distinctly disappointing. In another way—and on this the author of the paper had touched—the magnificent concourse was a disappointment. It appeared that in New York a man going for a train commonly arrives in a rush, and, in the case of the Pennsylvania station, if he has already got his ticket, the quickest way for him to catch his train is by short cuts which avoid the concourse altogether. Thus the whole effect of this splendid hall is lost.

Of the Grand Central station Mr. Davidge said it was undoubtedly a very fine work, as fine a station and as convenient a building as could well be devised. The immense scale and the charming proportions of both buildings must impress all who visited them. It was a pity there was not better communication between them. Mr. W. Woodward was apparently jealous, and covered his feeling by an affectation of disdain. Americans, he said, could never do anything unless they knocked into a cocked hat all that had been done in Europe. To this Mr. Arthur Bartlett replied that the railway stations were designed to serve a continent

with a population of eighty or ninety millions. They might well be of magnificent proportions. He thought the stations extraordinarily beautiful. The Chairman for the evening, (Mr. Walter Cave) had also seen the stations and he praised them. But he had to agree that the New York people did not see the great hall of the Pennsylvania station; so that in effect it was a great waste of space.

Impressions of a Visitor

It will be seen that there was a general note of appreciation of American architecture through all these discussions, but not enthusiasm. This, however, was reached on the occasion when Mr. Robert Atkinson, previously mentioned in this article, delivered an address before the Architectural Association—a smaller rival of the Institute. His first impression of New York, he said—and this will perhaps interest the American reader quite as much as anything directly connected with architecture—his first impression was social. The first thing that impressed him was the multitude of types in the streets, the enormous number of people who would be foreign to English eyes. The fact that all followed the same fashion in clothes and hats gave a superficial uniformity, but beneath the surface one recognized every nationality under the sun.

The enthusiasm which Mr. Atkinson felt for some forms of American architects was not I must say aroused by the New York skyscrapers. These did not please him. Quoting the joke about winding these buildings down so as to let the moon go by, he said the impression given was as if the winding apparatus had gone wrong and the buildings been left sticking up at all sorts of heights. They provided the accommodation they were called upon to give but they were not architecturally a success. They were not impressive in the way that a cathedral or old building in England was impressive. Probably half a dozen were successful. These were generally designed with three or four stories near the street in the form of a classic temple, above this a cliff of plain walling, and then another temple on the roof. They were more successful if there was a visible roof. Sometimes there was a copy of the campanile of Saint Mark or other comparable construction. The Woolworth building was the only skyscraper in which you could say that the design was homogeneous; and its multitude of windows was not so obtrusive as with other buildings of the same class. Its gothic detail was unfortunate, for it was not really suitable to the building; it was especially unfortunate in that other less competent architects had followed it and produced less successful results.

Apart from skyscrapers Mr. Atkinson professed an immense admiration for American architecture, which was, he said, miles ahead of anything we had in England. His opinion of the New York shopping district agreed with that mentioned above as being expressed by Mr. Austen Hall at the R. I. B. A. These buildings were, he said, magnificent. They were very seldom more than twelve stories high. The great thing about them was their beautiful detail. Fifth Avenue was a street continuous from end to end of fine shopfronts. He thought American hotels very fine indeed, and the public buildings magnificent. This last remark had no special reference to buildings which the present generation of Americans have received from their fathers; the lantern slides which illustrated it were of quite modern buildings. For all his enthusiasm Mr. Atkinson was not entirely uncritical. He objected that the detail was always neo-something or other; one would rather have thought, he said, that a country like America could produce a new design of its own based on modern requirements. Looking at a fine American buildiing one had the feeling that every part of it had been lifted bodily from some book or other. He thought this was due to the method of training; the schools of architecture were very efficient but stopped just short of the stage of creation. The American architect's plans and constructions were eminently modern in every sense, but he clothed these in copy book designs.

Here also, if he condemned, Mr. Atkinson had something to say on the other side. In Chicago, he said, a few years ago a new school had been begun by Sullivan which was free from this defect; and that school was not yet dead in some of the cities of the middle west. Mr. Atkinson showed some lantern slides in illustration of this point; of one showing a view of a bank he said, "It is not neo-anything. It has many defects, is possibly very ugly; but it is certainly an expression of something as this man understood it in a new spirit; and that spirit is becoming more adapted to its requirements. * * * They are improving every day. * * * Even in domestic architecture that feeling is beginning to be appreciated."

Architects in America, said Mr. Atkinson, were in the van of every improvement and every modern movement. The way in which the large cities were catering for the future could only be traced to the influence of the architect; for there was no school of sculpture or painting on anything like the same scale as that of architecture. The town planning achievements were remarkable.

The park centres of American cities delighted him. In America even worse than here, he said, one noticed the inability of the public to amuse themselves. Great crowds of people were to be seen in the evenings looking for something to do; and the civic authorities were endeavoring to meet this want by providing parks with open-air swimming baths, tea pavillions, libraries and other attractions. These parks and the outdoor buildings in them Mr. Atkinson praised very highly: "Ev-

erything done is done in the best way. * * * It is not a case of utility beyond a certain point. * * * Chicago is one of the dirtiest cities in the world, but in Chicago there are the finest gardens in America; and they are new, not copies of Versailles or anything of the sort."

Of the garden suburbs he said that they were laid out very much as in England, for American architects studied English domestic architecture and admired it immensely though they had no use for anything else from this side. Among small points which he noticed particularly in connection with these garden suburbs, was the use of ferro-concrete for lamp-posts and other things where iron is almost exclusively employed in this country, and the finishing of that ferro-concrete with a surface of silica, a practice as yet not known here.

In California Mr. Atkinson said he had come across a very interesting type, a development on the old Spanish-Mexican lines. The old buildings in baked mud yet standing in southern California were the prototype of modern concrete, and lent themselves to concrete imitation better than any other material. American architects had realized that in this style of building they had got away from the classic, and they were gradually developing something from it which might become an American style.

Mr. Atkinson's last remark was peculiarly flattering to his American hosts. Like his opening remark it was not architectural but social. He had been received with a hospitality, he said, which, having regard to our coldness to the stranger, made him ashamed to be an Englishman. The remark was not without some effect. The discussion that followed was not confined to the architectural matter of the lecture, and it was resolved to form something in the nature of a committee to receive American architectural visitors in a more hospitable manner than had previously been the case.

News Stands and Architecture

By W. R. B. WILLCOX.

THE WHOLE afternoon had been spent with a client, going over and over estimates for a building which he hoped to build upon a lot on which he held an option. He had first broached the subject of building with inspiring enthusiasm. He wanted a "real building," he said,—one which would suggest, or typify, the substantial character of his business. He was impressed, too, with the idea that the public was entitled to consideration at the hands of those who build and he intended to demonstrate his appreciation of that obligation.

It was his first venture. It soon shocked him to discover that probable returns from his business did not warrant the investment required by such a building as he had in mind. It had been painful to witness his ardor cool as, one after another, the evidences of refinement and distinction were sacrificed to financial necessity. A granite front had yielded to terra cotta and then to brick, reinforced concrete had given way to mill construction, terrazzo, metal trim and plate glass,—all had met their Waterloo. Finally, the point had been reached, where only the building ordinances interposed to prevent such further violence to his dream-building as might make its unpretentious substitute a possibility. "The question is," he said, "whether I can build *anything*,—at any rate on that site!" Disappointed and disgusted he left the office. Ah, me! Had I overlooked some other possible reduction permissible under the ordinances, which would save a commission? It was past the hour of closing, so shortly I followed him.

It happened to be a wild night. Rain in torrents slanted in every direction before sharp gusts of wind. Umbrellas of home-hurrying crowds bobbed about against the shifting onslaught of the storm. At the first corner, my friend the newsboy was on the point of handing me the evening papers, when a violent squall whirled down the cross street. Had he not been spry, his stock of papers would have been swept from the protection of the worn oilcloth on the rickety old dry goods box which served him for a news stand.

As I grabbed the papers in a moment's lull, I asked: "Why don't you get a *real* stand, with a cover to it, to protect your papers?" The remark was thrown out with kindly interest,—he had caught it, apparently, as some grim joke, because he flashed back: "Sure, why don't I build a block!" I wanted to stop to explain the intent of my remark, but he was busy at once with other customers and I was pushed along into the stream of wind-tossed umbrellas. "Well," I thought "I'll explain at a more convenient time." Of course, I never did,—one seldom explains little things like that,—and by the time I saw him again, the incident had passed from mind.

A couple of years later, my attention was arrested by an item in the papers that a newsboy was being sued for unpaid rent for the use of the street corner where he had been selling papers. That struck me as so extraordinary, that I inquired of my friend the newsboy, if it were customary for newsboys to pay rent for the privilege of selling papers on street corners. "Well, rather!" was his reply. "To whom do they pay it?" I asked, to which he answered: "To the *owners*,—who d'ye suppose!" The tone of his voice made me wonder, instantly, if my complacent assumption that street corners were property of the city, was justified.

Somewhat embarrassed, I challenged. "Well! Who *does* own them? By way of reply, my young friend enlightened me as to the business system which had developed in the newsboy world, to which, at that time, there had been little outspoken objection.

It seems that in the early days, the boy with the strong arm and the swift punch had been able to convince aggressive competitors that the corner where he chose to sell papers, was "his corner." It wasn't long before the "good corners"—those where the passing crowd was thickest,—were "owned" by the "hustlers," who gave employment to the rest of the newsboys. That was the way my informant "got his start," he said. Together with two or three other "kids," he sold papers for one of the "hustlers," who paid them a percentage on the sales.

"And you had to sell *some papers,* if you made any money, believe me!" he ejaculated. Then with evident admiration for business efficiency as he had met it in the struggles of those enterprising days, he went on: "The *Boss* didn't, though. The more *you* sold, the less he *had* to, and you can take it from me, he fixed the commissions so *he* didn't have to worry whether you worked or *not.*" After another pause, during which recollection had stirred a different emotion, he added: "Huh! Say! And just as you got to making a little more than you did at first, he put you on reg'lar pay,—so much an hour,—when you *worked!*—if it rained, he said he didn't *need* you. You never knew whether you had a job, or whether you didn't."

The boys, it seems, didn't fancy that arrangement, because no matter how keen and attentive they were, or how hard they worked, they couldn't earn any more money. "It didn't do any good to kick, either" he said; "If you did, the Boss'd tell you, if you didn't like your job, you could quit,—see? Cause there was always a bunch of kids waitin' round for a job." The consequence was that the boys did a "lot of slacking," as he expressed it, and the Boss had to "stick around" to see that they attended to business.

As it was, boys were constantly quitting, or losing their jobs, and the "labor turnover" became an item of importance, as well as the demands upon the Boss's time. This led in due course, to renting of corners by their "owners,"—the rent being determined by probable sales and competition for locations among boys who wanted to take a chance at independent careers. There were enough of the latter to keep acceptable profits at a sufficiently low figure to satisfy the "owner," whose sole task then was to keep an eye on the amount of business possible to secure. If the forthcoming returns fell below that amount, he ejected that tenant and got a new one, who could increase sales to a point where the owner could exact a larger rent, while leaving the newsboy the same profit obtained by the former tenant.

It was the refusal of one of these tenants to recognize the right of an "owner" to collect rent, that led to the previously referred to suit at law. The judge had thrown the case out of court, which seemed to imply that the law still regarded street corners as city property, and that the so-called owner had no legal standing. I never learned whether this case was finally adjusted in accordance with the original methods of settlement of such disputes, but such questioning of the rights of property evidently did not start a revolution, because the system of renting locations to newsboys by self-constituted "owners" not only continued, but the idea of property rights in corners became still more firmly entrenched,—perhaps, because the court failed to excoriate a practice so foreign to our democratic notions of individual rights.

Whether due to the outcome of this case, or some other cause, it may be that the uncertainty created by the unwillingness of the court to safeguard the "owner's" rents, led to the introduction of the custom of selling ownership rights, which were capitalized after the fashion of general business undertakings. This was all so interesting to me, that I asked my newsboy friend one day, if he "owned" the corner where he sold papers. "No, I don't,—but I am going to buy it as soon as I can save the price; got nine hundred dollars towards it!" he answered. "Nine hundred dollars!" I exclaimed in astonishment. "That's nothing" he said, "some corners are out of sight."

It struck me that his own prospective purchase must be approaching that limit, and as something in the situation took my mind back to the stormy night, I asked him if he remembered how once I wondered why he didn't have a better stand. "You bet I do! Big chance, if you want to get anywhere in *this* business," he said, and continued: "Perhaps, I'll have one when I get my corner, * * * but Hell! what's the use? You couldn't sell any more papers,—you couldn't make any more money;" and after a pause: "You haven't seen any of the corner guys furnishing any decent stands, have you?" I had to admit that I had not seen any particularly attractive, or serviceable stands. "Why should they?" he went on; "If the fellow what rents the corner wants to blow himself, nobody is going to stop him."

As I revolved the thing in my mind, I had to agree with what seemed to be his clear conviction, that from the business point of view, an improvement in stands was a needless expense, and I reflected, from an architectural point of view, a highly improbable event. I said: "You figure that you cannot afford a decent stand while you are saving money to buy a corner, and when you have bought it, you can rent it and let the other fellow worry,—and he can't afford a decent stand because he has all he can do to pay *you* rent,—and consequently, *nobody* ever gets to do anything

about it,—and newstands generally resemble the fag end of a dry goods store." "Guessed right the first time!" was his rejoinder.

As I walked away, I amused myself picturing what a tough job an architect would have to bring about an improvement in design of news stands! Just about such a job as I would have to get my client to build the sort of building he had conceived as the proper premises for his business, after his trying experience! Af first, I felt the old yearning instinctively surge up within me, for some effective means of educating the public,—for I realized that newsboys were as much the public as anybody else,—in the esthetics, in an appreciation of—architecture, for instance.

Yet, somehow, as I recalled the conversations I had had with my newsboy friend, and his momentary enjoyment of the prospect of having a decent stand when he should become the proud owner of a corner, a disquieting question kept beating at the walls of age-long conviction: Is it, after all, lack of appreciation,—the need of education,—that fosters the undesirable, the inconvenient, the inartistic,—nay, the utter lack, at times, of some useful accommodation, however shabby? Would it, I thought, be appropriate to refer the question to the Institute Committee on Education? Perhaps it might better go to the new Congress of the Building Industry.

I was in the midst of such cogitations when I reached my office. There I found my prospective client. After many conferences he had relinquished his option and given up his building project and it had been some time since I had seen him. In a half apologetic manner he began: "Well, I'm going to build!" My interest naturally awakened at once. "That so? Fine!" Seemingly somewhat embarrassed, he interrupted me. "Wouldn't exactly say it was 'fine,'—I had to do something and * * * well, I got a cheap lot, pretty well out, * * * building ordinances won't trouble me much there" (with a feeble smile). "Can build something I can use for a while, you know, * * * Not a very desirable location, * * * cost a little more to do business, but save on taxes. After a few years, I figure I can buy a good site down town * * * (there'll be places left) * * * and have the sort of building I want."

With honest sympathy for his evident disappointment, I broke in: "That's too bad! What sort of building will it be?" "Oh," he replied: "Just a wooden thing. I got hold of a small contractor, * * * he made some plans, * * * it don't amount to anything, and I told him to go ahead,—knew you wouldn't want to be bothered with it, * * * but you wait a while,—we'll have a real job *yet!*" He'd made his explanations,—he felt a little better. With that he went away, leaving me to meditate upon the vicissitudes of Art and Life.

American Academy In Rome

Collaborative Prize Competition, 1920.

The American Academy in Rome announces the result of the Competition for the Collaborative Prize offered by the American Institute of Architects. The competitors, it will be remembered, must arrange to collaborate in such manner that no students of the same year shall join together. That is to say, of the three competitors, one must be a first year man, one a second year man, and one a third year man. The details of the competition are printed below.

Statement of the problem: At the junction of two corridors in a public building is a room thirty feet square between rough brick walls. This room is at the corner of the building and being higher than the corridors forms a cupola. It may, therefore, be lighted from four sides as well as the top, if desired. It is proposed to finish this room architecturally, and to decorate the walls with allegorical paintings so as to make the room suitable for the installation of the statue of a great general, who has become a popular hero. The height of the room and its fenestration may be determined by the competitors. The finished room may be of any shape desired and may include niches and sculpture.

The drawings required are as follows: Plan, 1/4" scale; Section through the room at 3/4" scale. (The plan and section shall be on the same sheet). There is required also a plaster model, at 3/4" scale, of the statue of the General, including a pedestal.

Findings of the jury: Breck Trowbridge, Chairman; Edwin H. Blashfield, Francis C. Jones, Wm. Mitchell Kendall, Paul Manship, Charles A. Platt, Ferruccio Vitale. The Award:

1. Philip T. Shutze, Architect; Allyn Cox, Painter; Thomas H. Jones, Sculptor.

2. James H. Chillman, Jr., Architect; Russell Cowles, Painter; Carl P. Jennewein, Sculptor.

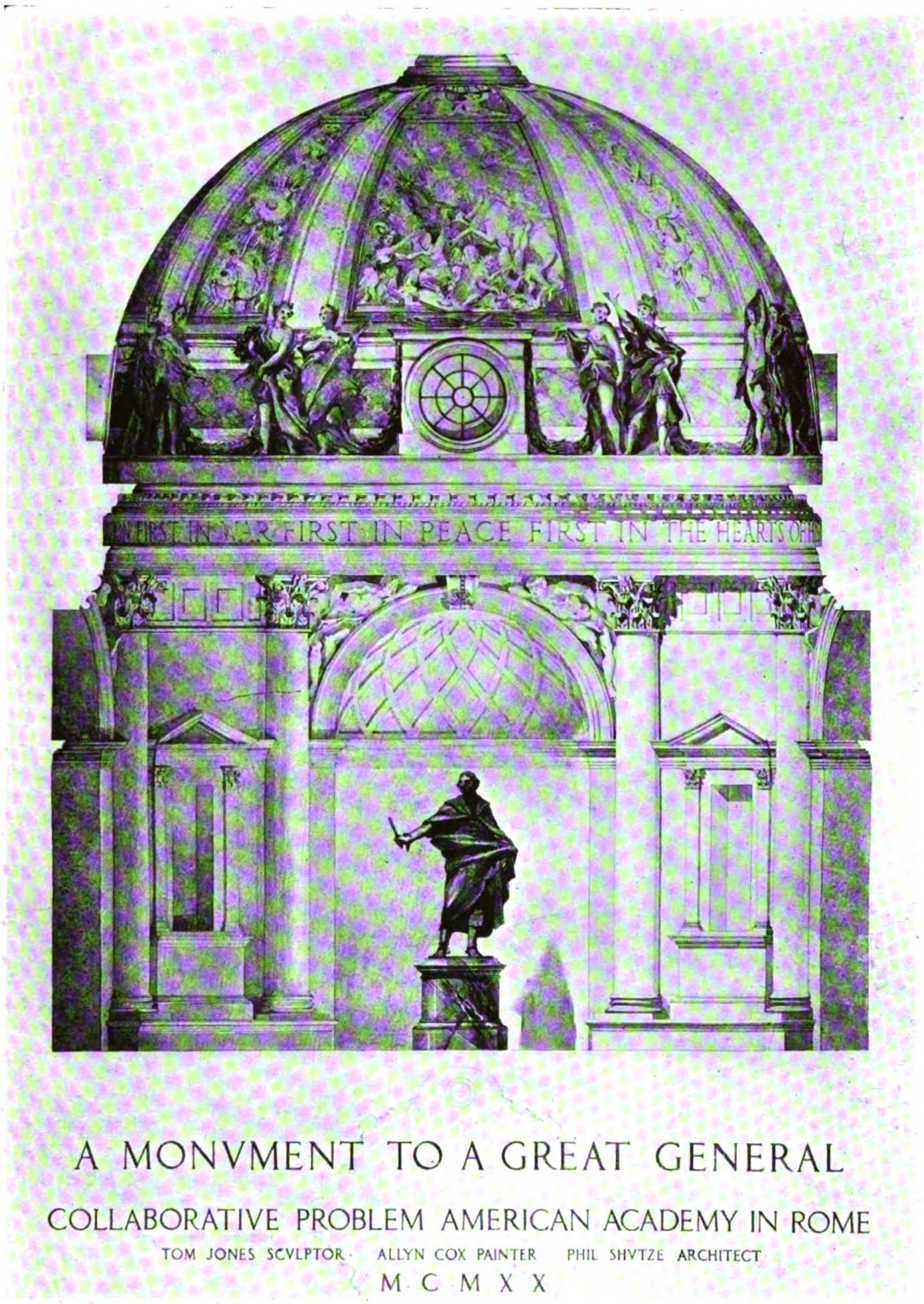
3. Raymond M. Kennedy, Architect; Salvatore Lascari, Painter; Joseph E. Renier, Sculptor.

The Jury awarded first place to No. 1 for the general excellence of composition and harmonious tone of color. The Jury considered that the realistic figures promenading in front of the architectural lines of the dome were wrong in principle, but brilliantly conceived and executed, and that the execution of the model of the figure of the General was bad.

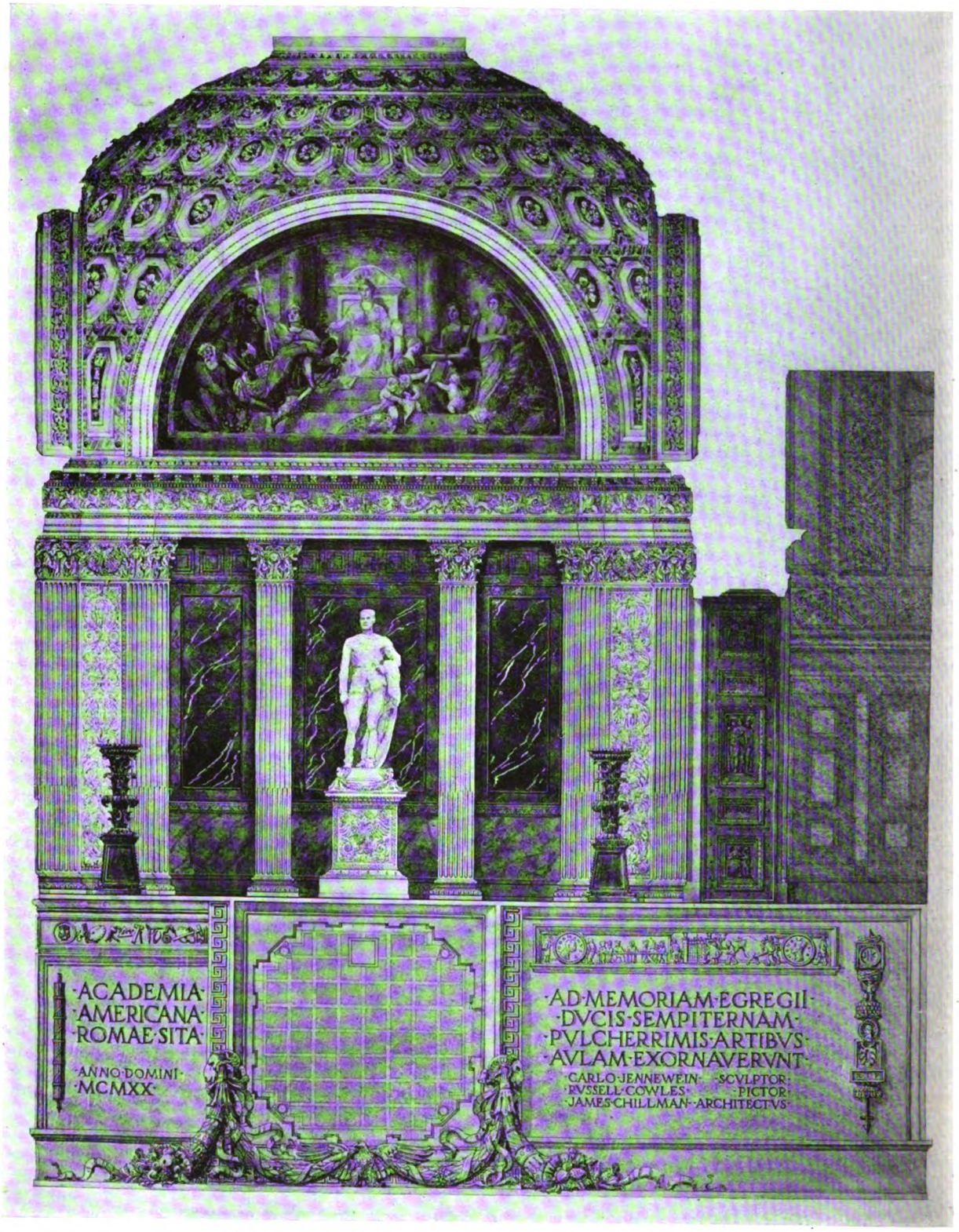
No. 2 was commended for excellence of architectural detail, rendering, lettering and general presentation, although a more restrained use of ornamentation was recommended.

No. 3 was deemed to offer the best opportunity for mural decoration in color. The painter had the right idea of what its character should be, but while the background was excellent, the grouping of figures in the foreground left much to be desired. The niche and the figure were not well related.

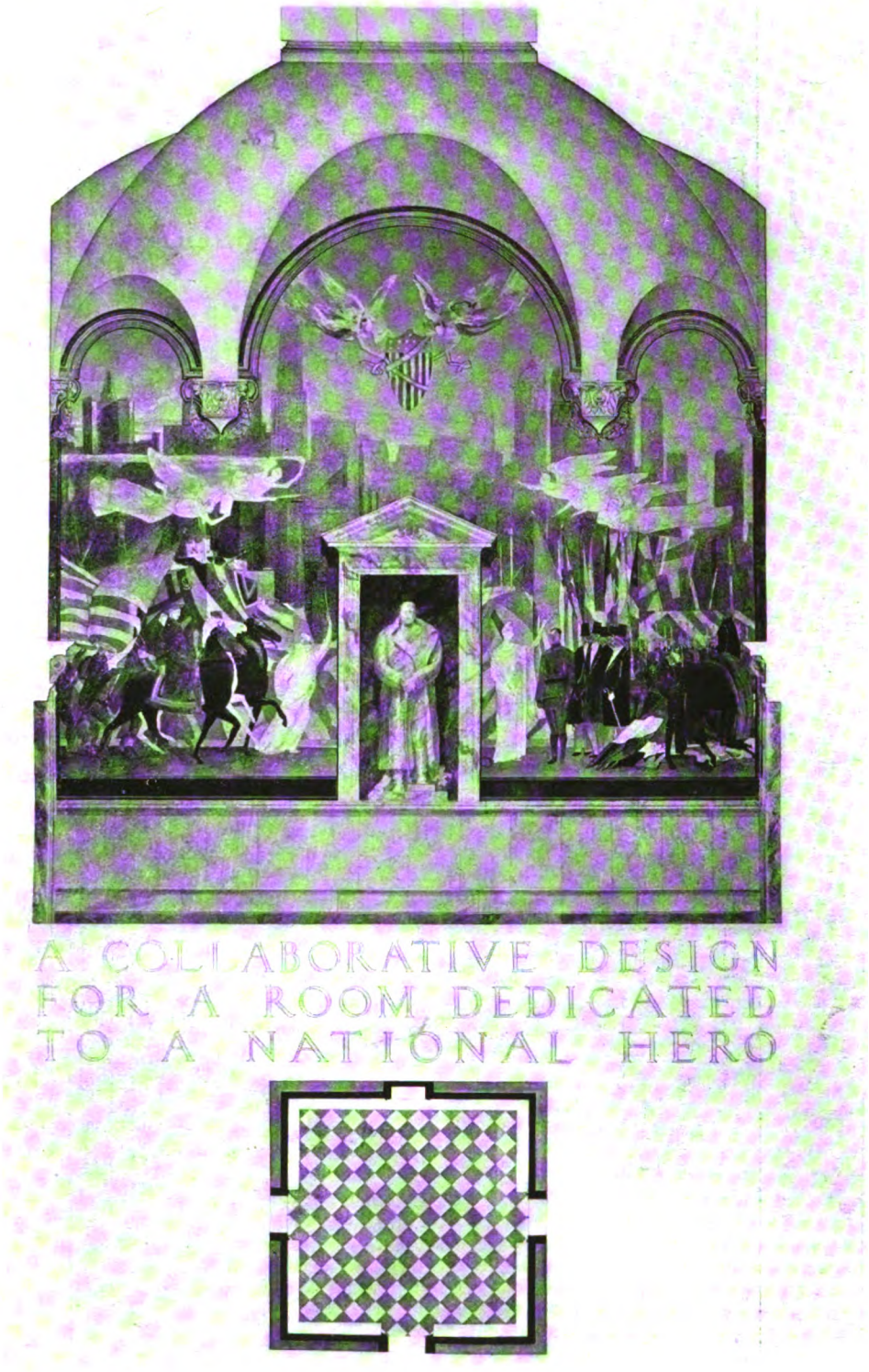
Illustrations of the three winning drawings are shown on the three following pages.



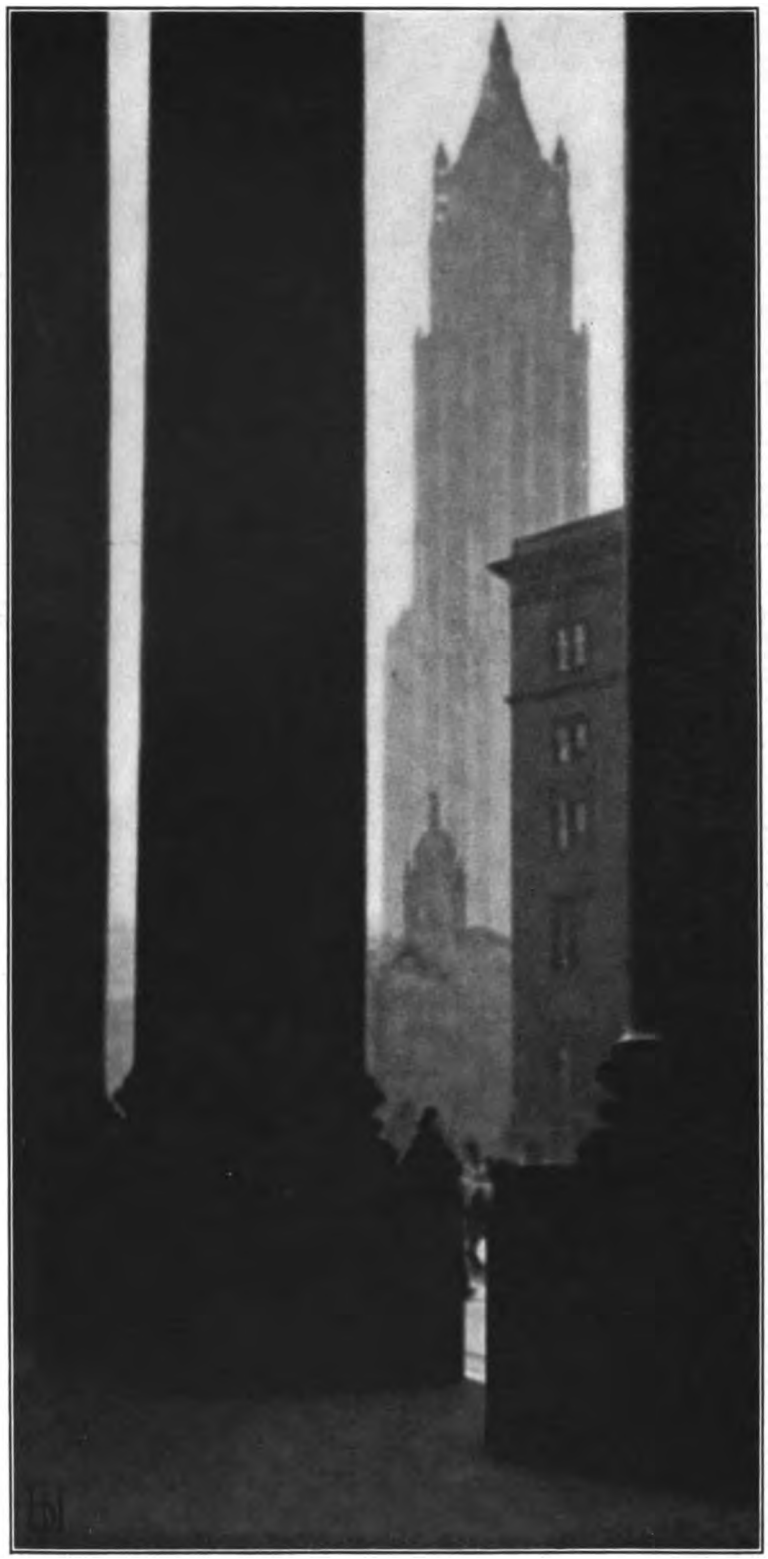
American Academy in Rome—Collaborative Prize Competition
First Prize



American Academy in Rome—Collaborative Prize Competition
Second Prize

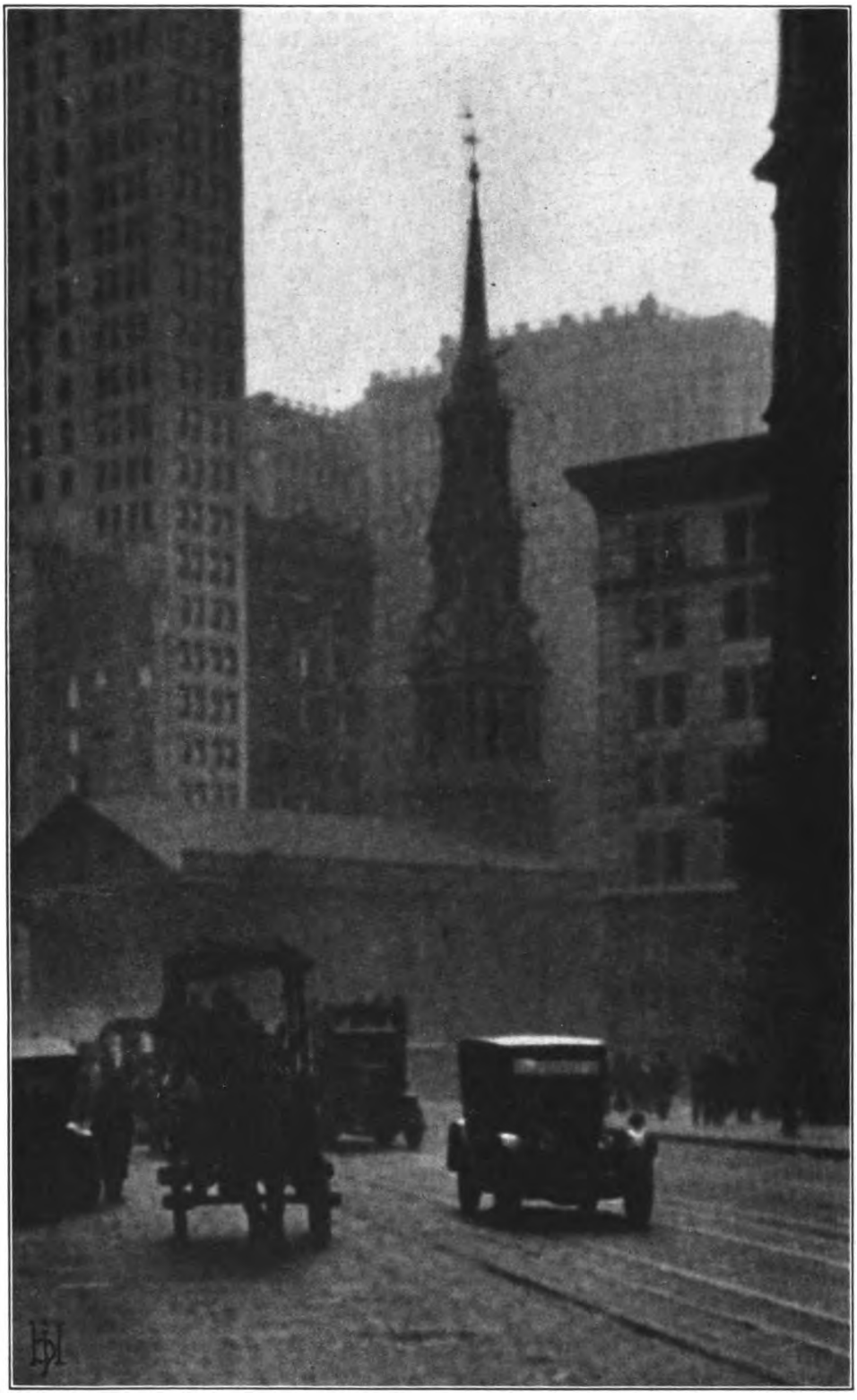


American Academy in Rome—Collaborative Prize Competition
Third Prize

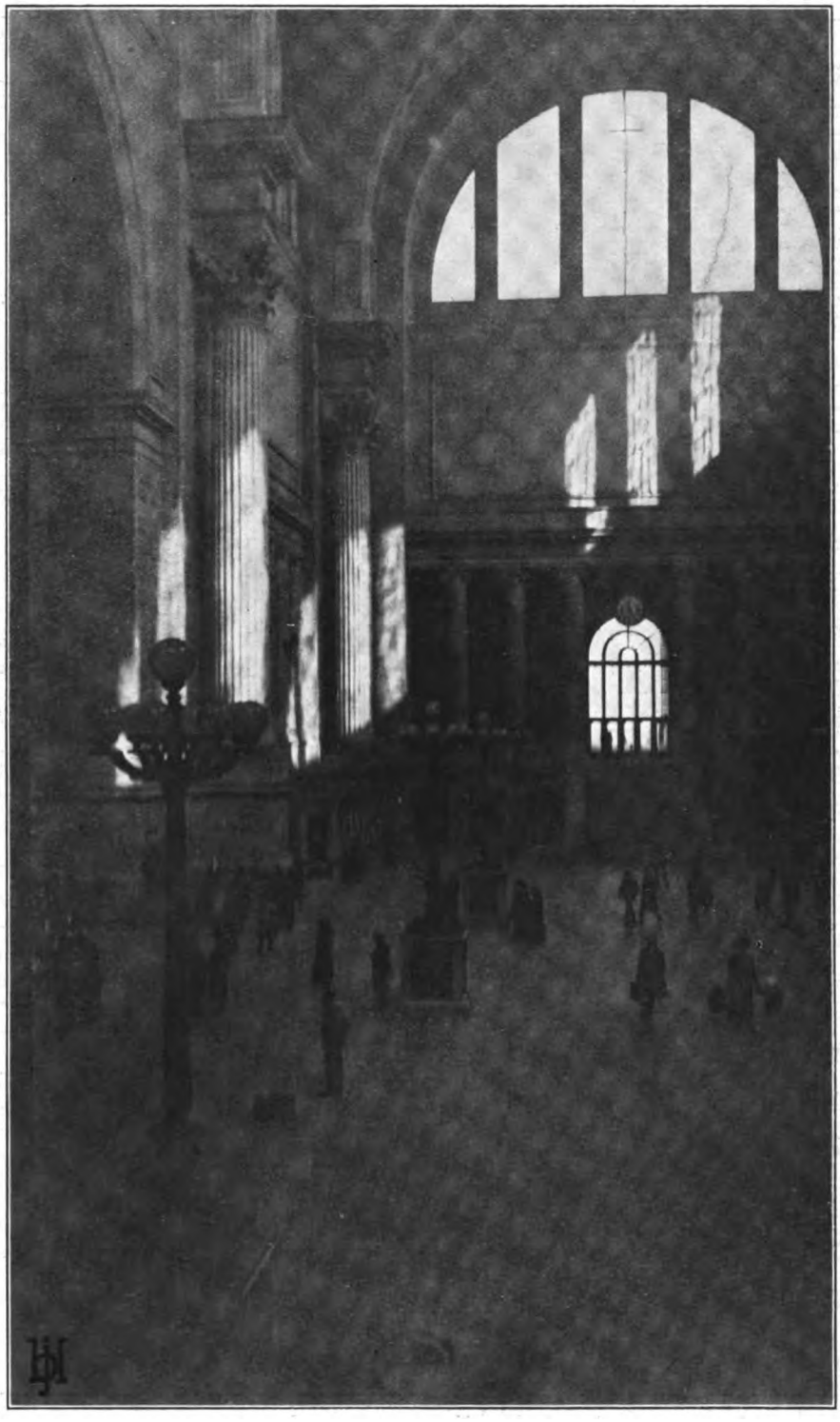


WOOLWORTH BUILDING FROM THE MUNICIPAL BUILDING
After a photograph by Ben J Lubschez

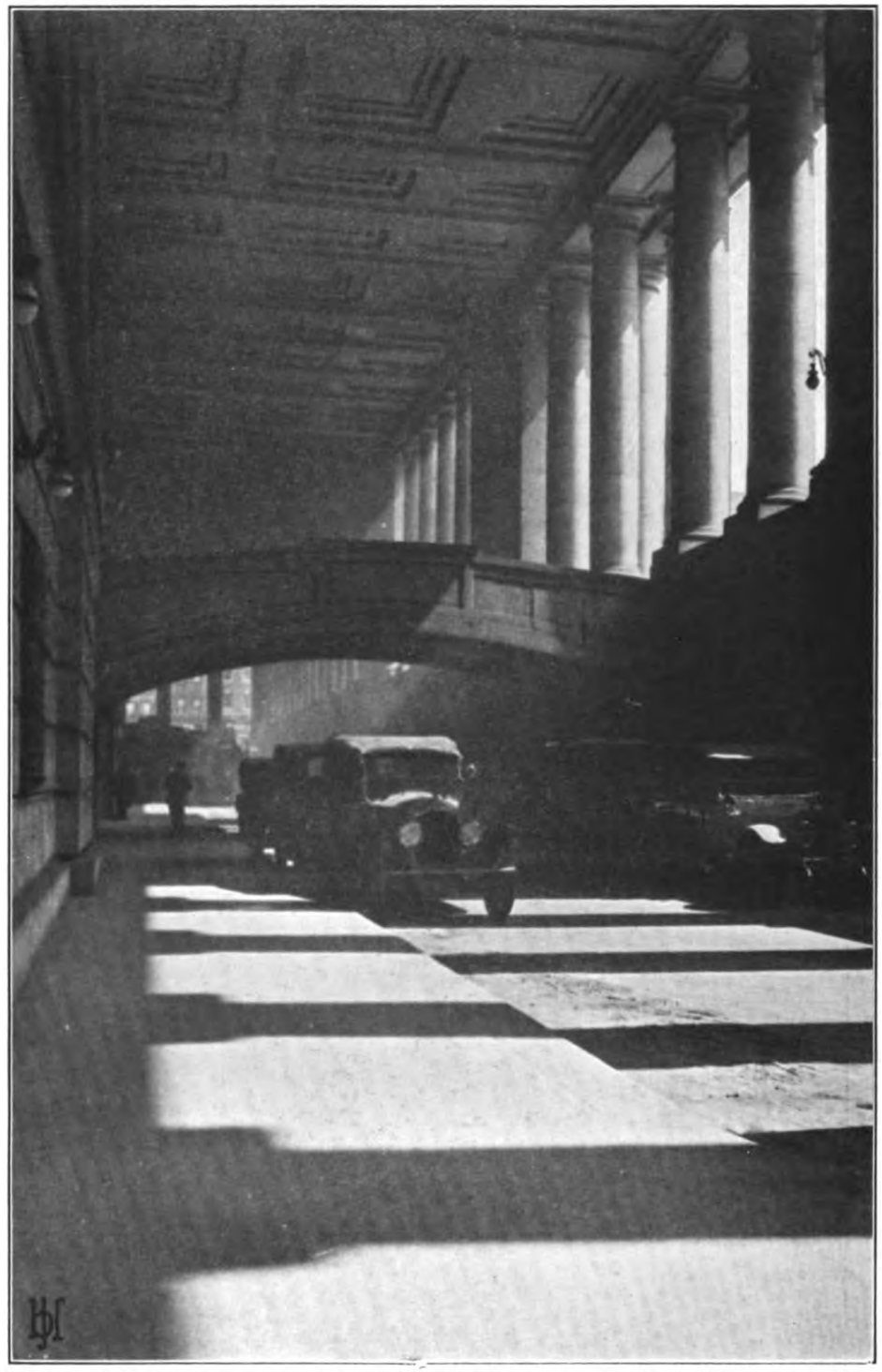
BRYANT PARK, NEW YORK CITY
After a photograph by Ben J. Lubschez



St. Paul's, New York City
After a photograph by Ben J. Lubschez



PENNSYLVANIA STATION, NEW YORK CITY—GENERAL WAITING ROOM
After a photograph by Ben J. Lubschez



Pennsylvania Station, New York City—31st Street Cab Driveway
After a photograph by Ben J. Lubschez

"What is the Matter with the Building Industry?"

THIS was the subject of discussion at the afternoon meeting of the New York State Association of Architects held in New York City on November 12th. At no previous assembly of architects attended by the reporter was there so full a discussion of the problem from so many points of view. Yet it seems unlikely that anyone could have left the meeting with a clear feeling that he knew what is the matter with the building industry. The wide divergence of opinion only emphasises the necessity for carrying out the complete study and analysis suggested in the resolution adopted at the Atlantic City Conference. It is true that the meeting in New York City touched upon a good many aspects of the situation, but it by no means cleared the atmosphere. Several of the speakers seemed at different times to be on the point of dealing with what Mr. Comstock referred to as the basic problems of land and credit, but on the whole these two questions were scarcely touched.

Mr. Allen E. Beals of Dow's Reports presented a very interesting array of statistics on building materials as prepared from information gathered from the extensive reporting system of his firm. He traced the volume of building and the cost thereof from 1911 when the total volume in the United States was 605 million square feet costing $1.50 per square foot, to the present time, when the cost has risen to $3.20 a square foot. Except in the year 1915 when there was a slight shrinkage in cost, these prices have risen steadily and have been accompanied by a varying decline in building volume. This decline was very noticeable in the year 1917 with a total volume of 338 million square feet, and in 1918, with a volume of 185 million square feet, the nine months of 1920 showing a volume of 325 million square feet. Mr. Beals very emphatically assigned the blame for the present condition of the building industry to the ill-advised interference of the government in war time and to the equally ill-advised lack of government control after the war. He pointed out that at the close of the war, due to the enforced governmental restriction of output during the war with its consequent plant deterioration, there were not enough building materials on hand to supply one fourth of the construction work offered and that there was also a serious shortage of workers. Also that at the present time output was not keeping pace with demand and that he saw no way by which the price of building materials could fall for a long period. He also pointed out the fact that construction work outside of the building industry could utilize all of the materials available and he unhesitatingly expressed the conviction that intending builders now waiting for a fall in prices might very likely find it impossible to buy materials.

Mr. W. G. Luce of the Hegeman-Harris company speaking for the contractors, made a very eloquent plea for cooperation. He touched upon the question of credit and cited the serious problem raised by the present method of providing this necessary element of building, but on the whole he believed that the troubles of the building industry could be solved only through the spirit of cooperation and the application of the Golden Rule. Just how the Golden Rule was to be applied to determining the amount and division of profits he did not explain.

Mr. Louis K. Comstock, of L. K. Comstock and Co., was listed on the program to speak for the sub-contractor. His address however was from a much broader point of view and is reprinted elsewhere in this issue.

Mr. Ronald Taylor, President of the Building Trades Employees Association, gave the employers' view point in respect to negotiations with the trade unions, while Mr. William P. Bannister, representing the Brooklyn Chapter, translated the evils of the building industry into the biological symbols of metabolism and katabolism. He dwelt very strongly on the necessity for ridding the industry of the evils within it even as the function of katabolism is to rid the human organism of malevolent waste materials. He was convinced, he said, that the great difficulty at the present time was that investors have lost faith in the efficient conduct of the building industry; that they believe it to be saddled with too much unprofitable labor and service. "The building industry can not regain its balance," said Mr. Bannister, "until there have been eliminated from it all unjust payments for services not rendered." This is the fundamental truth that the building industry must accept. When it has done that it will soon set about discovering how to eliminate. Then and not till then will it begin to get anywhere.

Mr. Robert Glenn, of Todd, Irons and Robertson, spoke from the point of view of the building superintendent. His account of the direction of the Cunard building was of fascinating interest. Through it ran the vital faith in the workers' pride of craftsmanship and the workers' despite of ignorant and careless supervision. His plea was for a revival of the old system of building where the contractor was himself a master workman, competent to supervise and not merely a financial operator. He gave to the process of building a homely and deeply human significance.

The morning session of the Association was devoted to the report of the President, Mr. Ornan H. Waltz and to the very interesting report of the Associations' delegates to the last Institute convention, Mr. Edward H. Loth of Troy and Mr. James Riley Gordon of New York City. Certainly the members of the Institute would have been interested to hear the eloquent appreciation of the Institute's labors for the profession as they were expressed by Mr. Loth who read the report. Following this there was a discussion of the housing problem. This was opened by Mr. Burt L. Fenner, President of the New York Chapter, who very briefly recited the salient facts. Mr. Fenner quite frankly asked whether the building industry was a properly designed machine and answered the question by saying that ultimately we shall have to design a new one which would take much time, patience and skill. In the meantime he hoped that the old machine might be patched up—that all unearned profits might be done away with and that the federal government might not be forced to undertake the housing of our population, but that it would, on the contrary, undertake a scientific investigation of the problem.

The Housing Committee of the Association then pre-

sented its report which was unanimously adopted and is printed in the Housing and Community Planning section of this issue of the Journal.

As a result of the discussion of housing there was appointed a committee of three to prepare a resolution for submission at the afternoon session. The resolution was as follows:

Whereas, the housing situation in almost every community of the State is extremely serious and practically no new houses are being built because such building offers no profit, and whereas it is evident that dependence on profit as an inducement for the housing of all the community is not producing the necessary relief, therefore be it *Resolved:* That we must try to find new viewpoints leading to new methods and that we start the essential educational process leading to such new methods by encouraging the people themselves and the workers to organize their own powers in credit and in work that they may build for themselves without profit to any intermediary.

The resolution was laid on the table and ordered printed in the Association Bulletin that it might receive full consideration at the next meeting.

Altogether the meeting was a most successful one. The sessions were well attended and the discussions indicated a keen interest in those aspects of the building industry which have too long escaped attention. The next meeting of the Association was fixed at Albany in the spring of 1921.

The Blot on the Escutcheon

Building Conditions in New York City

THE Joint Legislative Housing Committee began the investigation of building conditions in New York City, referred to in our last issue, on October 20th, under the direction of its associate counsel, Mr. Samuel Untermeyer, who clearly outlined the purpose of the investigation at the opening of the third session on October 23rd as follows:

"Perhaps I should briefly outline at this stage the general trend of the proof that will be offered on the branch of the inquiry covering the relation of unlawful combinations among manufacturers of and dealers in building materials and supplies and of labor unions affiliated with them so that you will have in your minds a proper prospectus and will be the better able to understand the logical sequence of the evidence as it is presented.

"Now, what we intend to show is a banding together among the material men, first, in separate associations in each line of thirty-two lines engaged in building materials from the manufacturer down to the retailer; and then banding together of the different associations under the head of the Building Materials Employers' Association; and then we purpose to show that not only has labor been dragnetted into the Building Trades Council in many instances, but that employers have been dragnetted and forced into certain of these associations by the relation that exists between the Building Trades Council and the Building Trades Employers' Association, so that if an employer and building materials man does not happen to be a member of the association that agrees on prices, and distributes orders, he may, although he is employing only union labor, wake up in the morning to find his men one by one pulled away from his job. So that it is a case of you tickle me and I tickle you, as between these organizations, each one strengthening the other, all at the expense of organized labor.

"You will find as you go on that men are drawn away from building enterprises in this city without knowing what it is about; the workingmen never being able to find out; no question of wages, no question of hours of labor, no question of union labor, which most of us, in these enlightened days, believe in; but some question or other outside that they know nothing about. I think you will find that, as we go on, the little small change that was referred to yesterday is a very small and trifling item in this organized raid upon the building industry, and that it is so widespread that until it has been checked and punished building operations in the City of New York are simply impossible."

Someone must be held to account for engaging in such notorious actions. We must have, it seems, a real live victim in the shape of an individual.

This demand for a real live victim seemed to the reporter to be drawing interest away from what appeared to be the most important matter to be looked into. The men on the stand appeared as individuals and representatives of groups; they appeared as puppets—but puppets of what? Were they puppets of a system, a ring, or were they puppets acting in response to something more extensive—far reaching—more pervasive?

The reporter recalled certain words and phrases commonly used in reference to entirely "legitimate" practices as the same are rated in the world of business enterprise, such as "deals," "putting up a bluff," "taking advantage of a situation," "bringing the other to terms," and so forth, and he was dubious about drawing a very definite line as between what was rated as entirely legitimate and what was not so rated.

According to the reporter's understanding of these terms, as used in the world of large scale finance and as related to the issuance of credit and refunding transactions, to big business and matters having to do with international relations, it seemed that the witnesses were triflers rather than adepts. In contrast, their technique of systematic obstruction was crude and vulgar, and it would seem, if one may judge by what was said in the press, that it was their crudeness of techinque in getting something for nothing, or in getting the most money while giving the least in return, which furnished the ground for complaint. That is to say, apparently both press and public are not questioning the stability of the foundation upon which the structure of business enterprise rests. The outstanding purpose of business enterprise, whether getting something for nothing or whether getting the most while giving the least, is quite sufficient, so it seems. Some way therefore must be found of refining the crude and vulgar methods used in the building business!

THE BLOT ON THE ESCUTCHEON

The investigation is now in full swing, so it is too early to pass judgment or to deal with the testimony in detail. The reporter even begs to be excused from drawing conclusions and for the present merely sets down what he thought about as he listened to the testimony.

As he observed the witnesses under Mr. Untermeyer's fire, he asked himself this: Is Mr. Untermeyer investigating the action of men—groups—organizations—or is he investigating a system—an institution—a point of view? During the sessions the reporter read what the papers had to say about it—read the news items and the editorials. The headlines ran like this: "Contractor in Terror of Labor Boss." "Committee Hears of Trust in Building Materials." "Millionaire Plumber Pleads Utter Ruin will Follow if he Reveals Building Combine." "Witness Paints Brindell as Despot, Ruling and Ruining Labor and Capital." "Strikes Ordered as Payments Lagged." "$7,500.00 Demanded on One Job." "Rich House Wrecker is Driven into Bankruptcy by Hounding." "Lath Combine Revealed." "Huge Graft paid Brindell, Men and Employers Swear." "Contractor tells of Paying Brindell $2,000 Cash after Threat to Ruin his Business." "Tells Untermeyer $25,000 Bribe Ended Strike." "Levy Swears he gave Cash for Brindell." "Backer Faces Perjury Indictment." "Bidder Exposes Court House Deal, Tells of Rake-off." "Hanlein Reveals Combine among Cut Stone Contractors; Were to Divide Profits." "Seventy Indictments to be Asked in Building Scandal." "Rural Resorts Lure Building Trade Notables."

The editorials ran to the effect that the inquiry was revealing "surprising, astounding" conditions which had long been notorious. So the reporter came to the conclusion that regardless of what Mr. Untermeyer was endeavoring to do, the newspapers—and no doubt the public—were investigating men and organizations. For everywhere there was evidence that this inquiry must "pin it" on someone or some organization. Someone or some group must be to blame for this awful scandal.

Financial business may, e. g., issue a billion dollars of credit to hold goods in storage in order to keep the price up, and about all that is offered by those who complain is that "it is a pity." Such things are done under cover of averting a panic or under cover of whatever excuse may be trumped up to rationalize the situation, and thus such actions are made to pass as legitimate. Instances might be drawn from every field of production to illustrate how we accept without question—as perfectly legitimate—a systematic curtailment of goods production. In relation to actual needs there may be a shortage of coal, cotton, woolens, sugar, brick, cement. Prices are likely to be high under such conditions—so high that people may not buy what they need. But, when prices show signs of falling, what do we do? Close down the plant and issue credit to those who hold the goods in storage, to keep the market firm, of course.

After puzzling a long time over the matter, the reporter came to the conclusion that what was most needed after all, was an inquiry into that extensive, far-reaching, pervasive thing—our point of view. Why is our machinery of production gradually being made over into a gigantic Friction Machine? Why do we blame men if they cannot run it? In the meantime, it seems rather a pity that this investigation could not have been made by the building industry itself, instead of by grand juries and the wholly incompetent press. The Congress of the Building Industry is arriving on the scene a little late, but perhaps not too late.

So, if Mr. Untermeyer and the press fail so to conduct the hearing as to make it an inquiry into that point of view which assumes that men must be made to operate this Friction Machine anyway, then the reporter will use the testimony to this end and so report his findings.

FREDERICK L. ACKERMAN.

"The Truth Shall Make You Free"*

BY L. K. COMSTOCK.

THE Guildsmen of England have given the following definition of the meaning of the Guild:

"In industry those who work with their heads and those who work with their hands cooperate to produce the things which all of us need. If conflict and disunion take the place of cooperation, wealth production is hindered and everything the community requires is rendered less abundant and more costly. To secure this harmony of interest is the master problem of the modern industrial state."

This is a definition of the meaning of the English Guild in the building industry, but it can be made to do service as a definition of that kind of cooperation which is now making its appeal to our own building industry.

Old as the hills is the phrase "the truth shall make you free" and the 20th Century definition of freedom is the freedom to cooperate. If independence means anything, it means service and this is the great living fact—a fact which must be our guiding star. Never before have the problems of architects been so closely allied to and a part of the problems of the industry. You cannot segregate these problems and you must seek their solution with a clear understanding of their relation to the industry. To you as professional men, belongs the moral leadership of the industry and you must assert it, or else surrender. To those of us who possess something of the venturesomeness of Faith belongs the duty of extracting order out of the chaos of the building industry. There are many things to be considered, and much is to be done in bringing about an orderly arrangement in the industry, in order to narrow down the points of successful attack to the basic problems of land and credit. The control of these two factors over the industry falls within the domain of economics, but the orderly arrangement of the industry ought first to be considered in order to eliminate waste, the inevitable accompaniment of duplication of effort. Waste is an industrial crime and includes every form of expense not balanced by a unit of design or construction. The elimin-

*An address delivered at the meeting of the New York State Association of Architects in New York City, November 12, 1920.

ation of waste makes for industrial cohesion and harmony—or to put it otherwise, industrial cohesion and harmony will eliminate waste. The harmonic sense in our industry is absent, undeveloped.

Cohesion and harmony mean orderly arrangement, and orderly arrangement means peace and a condition of peace is favorable to a united industry, addressing itself to the fundamental economic problems of land and credit, problems which can be successfully sovled only by the industry. If solved elsewhere, the industry will not accept the solution, because it will not understand it. No industry will ever be well arranged and orderly, unless and until the functions of the various groups forming the industry are defined and proper bounds are placed by a code of practice, to which all can agree and with which the law can find no fault.

Roosevelt first conceived the idea of the Federal Trade Commission and he came to believe that in the increasing complexity of our industrial life the strict and inflexible rules of law and of the courts often worked hardship to legitimate business, and so, of course, ran counter to the general welfare and the public interest. When the Federal Trade Commission finally came into being, early in President Wilson's first term, it was called upon to administer the law creating it and this law contained a single sentence which seems to me to comprehend the ideals of American business and to be at once the Constitution, the Bill of Rights, and the Declaration of Independence of American business. These are the words:

> "Unfair methods of competition in commerce are hereby declared unlawful."

That is to say, business is to be fostered by law so long as it derives its strength and virtue from its own good conduct. Commercial cannibalism is henceforward to be looked upon with disfavor as long as the Federal Trade Commission properly interprets the law. A code of practice, dealing as it must with the spirit, purpose, and intention of the truly intelligent of the industry might perform a very great service in the regeneration of the industry—a service comparable in kind and degree to the Law Merchant. The Law Merchant in England and Europe was a law peculiar to itself. It was created, prior to Lord Mansfield's time, by merchants and administered by them, just as our stock exchange has its own rules and its own forms for enforcing them. This Law Merchant was based on the customs of merchants in conducting their business; and these customs in turn grew out of their business experience. It was justice as the merchant saw it; and, to his thinking, of a higher, finer and more sensitive quality than that known to statue law. The real purpose of a code is to introduce into our relations order and justice, and justice is merely moral equilibrium. To develop a moral equilibrium in industrial life is to satisfy an instinct and as long as the instinct remains, it will be more comfortable for the law to satisfy it in an orderly manner, than to leave people to themselves. The common law has ever striven to satisfy human instincts in an orderly manner according to the dictates of enlightened reason. And so, as the Law Merchant finally became embodied in the Common Law of England, so may a code of practice in the building industry, if truly founded on principles calculated to satisfy human instincts, be incorporated into law.

Each group in the industry must have respect for every other, not lip respect, not respect that begins and ends with words, but that kind of respect evidenced by a common acceptance of a forum where all things of common interest to the member groups of the industry may be discussed with reason and understanding; discussions of this sort have been exceedingly rare in the industry, but negotiations, with an eye on the main chance, have been common enough, and the results are everywhere apparent. Respect must be translated into "Cooperate and assist."

Respect must not be made to mean obeisance to magnitude or discrimination based on a supposed superiority of position, or fancied superior importance. Rather should respect be founded on ability and willingness to serve, and on ability to perform the duty imposed by group membership. Respect founded otherwise is illusive and cannot be made useful as a contribution to the grand idea of cooperation in the industry. There has been too much respect paid to persons and too much kow-towing to great names in the industry. Persons bearing great names are prone to remain aloof—and the unknown is always the magnificent to the ignorant and the fool, and it is really the veil that makes the prophet; when he takes off the veil, he is seen to be an impostor, the comman man. Service must be the true criterion of respect.

The one great interest we are all striving for is the regeneration of the industry and the enthronement of reason where prejudice now exists, and the substitution of harmony for discord. In bringing about this grand result, five groups are necessary—the Architect, Engineer, Contractor, Sub-contractor, and Labor. Each group has its own appointed task, and together they should move forward with the harmony and the rhythm of a great army under the leadership of a General Staff, which, composed of experts representing all the divisions, has worked out the grand strategy according to its understanding of the problems involved and the objective.

This is our common interest and you will at once perceive that the interest is complex and perhaps confused and full of cross currents of individual interest, apparently and probably at variance with the direction of the grand common purpose. In proportion as these cross currents of individual interest are allowed full play, the grand strategy of the industry is in danger of failing to reach its objective. Our common interest demands organization, organization demands direction, and direction demands conference, conference demands compromise, compromise demands self subordination, and self subordination demands courage of the highest order.

We are too apt, in spite of our willingness to regenerate the industry, to regard its present characteristics, and group isolation, as fixed and unalterable. Nothing is permanent and beyond alteration, and if proof of this is necessary, consider the Eighteenth and Nineteenth amendments to the Constitution of the United States.

You Architects form the professional wing of this great industrial army. Despite your professionalism and what some of you have regarded as a splendid isolation from commercialism—because you sell nothing but service—

nevertheless you are salesmen. The lawyer is a salesman, the minister is a salesman, everyone is a salesman whose name is not yet on a tombstone and who still has an idea worth passing along. Nothwithstanding your professional training and your broader culture, you need in common with all other groups in the industry a more vivid realization of the socializing forces at work and a more lively perception of the necessity of a code which shall link you up harmoniously with the other groups.

The orderly arrangement of our industry is not going to be based on logic but rather on experience, and experience teaches that the welfare of others is linked up with our own, no matter what we do. Organization of the industry into an industry organization is not impossible nor is it easy, nor will it be made easier by constantly thinking how hard it is. There will be little hope for the rescue of the industry, except through industry-organization.

Group organizations will not accomplish the result because they lack a common underlying fundamental philosophy. Architects, labor, contractors, engineers and sub-contractors must walk hand-in-hand as members of one great institution, whose duty it is to house mankind. We need to see this industry in perspective, if possible, and thereby discover our relation to it. It is a stupid thing to allow individual selfishness and group selfishness to project their shadows across the path of progress to prevent intelligent organization and coordination. Organization, that kind of organization which means coordination is a form of democracy, of intelligent democracy. We must not falter or grow discouraged if democracy's gait is unsteady, and at times seems to travel forward-backwards. A forum is needed where the problems of the industry can be discussed intelligently, dispassionately and authoritatively. Architects, contractors, engineers, sub-contractors, and labor must meet on the common ground of a single forum, and be prepared to discuss, yield, compromise—in other words, cooperate.

Because you are the professional wing of this industrial army of ours, to you belongs the leadership—you have not yet accepted the obligation. This duty devolves upon you because your non-commercial training has given you a sounder footing in the morals of industry, yet notwithstanding your advantages, you have so far put aside the obligation. The worth of men in the future will be measured wholly by the degree in which they can learn to work together for their mutual advancement.

Housing and Community Planning

JOHN IRWIN BRIGHT, *Associate Editor*

Report of the Housing Committee of the New York State Association of Architects

FOR two years the citzens of New York State have known that a housing emergency existed that could only be cured by the erection of a large number of new houses. During that period in the City of New York more dwelling places have been destroyed or converted to other use than have been erected. As a result the rents of the homes of a large proportion of the citizens have been raised beyond their means; thousands of families have been crowded into dark, unsanitary, decaying dwellings; actual disease and suffering and the likelihood of epidemic have been greatly increased. Similar conditions are threatened throughout the other cities of the State.

Committees and commissions without number have investigated and reported, but no effective action has been taken that would lead to the building of more houses. The legislature has killed the incentive of speculative endeavor; it has done nothing constructive. The machinery of speculative and competitive enterprise for the production of houses has broken down. Housing is not as profitable as other forms of business. So money is being lent for other buildings but not for housing, architects are planning other buildings, materials are being used by builders on other construction, but no houses are being erected. Workmen are employed on other types of building though they need homes. It is apparent that what was our only source of supply of housing in the past—speculative and competitive enterprise—has failed us in this emergency.

The system on which we have always depended has never produced sufficient or proper housing. Private enterprise built the types of house that sold most easily, no matter how poorly they served as dwellings. In New York City and Buffalo the minimum requirement of the law was the guide of the speculative builder—that and a plan bought at a bargain. In other cities in the State, he was free even of the restraint of any housing law. Most of the miles of New York City tenements as well as the cheaper houses of our smaller cities quite inadequately serve their purpose. They were built to sell not to house. The speculators that erected them were builders in name only—the sole skill they needed was that of borrowing money enough to pay for materials and labor.

At the present time it does not pay to build even the kind of house that the speculative builder formerly supplied the moderately well-to-do. For generations no one has built any homes for wage earners. They have been herded together in insufficient unwholesome, crowded, dark, left-over dwelling places. In New York City and Buffalo the Tenement House Law offered some protection to those who could afford new homes before the war. It did practically nothing to improve the living conditions of that half of the population who live in the tenements that were built more than twenty years ago. The poorer half of our fellow New Yorkers have never received enough pay to afford even the inadequate homes that were produced. They suffered in silence. As a result of the complete breakdown of the old system of housing supply, that articulate part of the population which has been accustomed to some protection for the health, safety, morals and happiness of their families are now suffering. So we all know that there is a housing problem.

The housing problem is not a new nor a temporary problem. Rent legislation will not solve it. Offers of bounties to the speculative builders can only at best serve to resurrect an incompetent system that in a wasteful

manner has given a small proportion of us quite unsatisfactory dwelling places. We can only hope to start the machinery of house production and to make it function for the good of the community by a change in our attitude in regard to the part that must be played by credit, materials, labor, land, planning and the State.

Credit

The control of credit is mainly in the hands of a small group of men. These heads of banks and insurance companies are responsible to their stock and bond holders to get the greatest possible profit on their investments. Housing is risky. It does not pay as well as other investments. And so they will not lend money for housing. But the credit which they lend is based on the savings of working men and women. These same people are congested in a manner which endangers health and happiness while their money is used to build theatres and garages.

There is no solution of the housing problem until the control of credit becomes a public function. Credit for housing must be used where it is most needed and when it is most needed. This will be possible when the State lends its money or credit for housing at a low rate of interest and for long terms, or when the people finance the building of their own homes by forming credit unions for that purpose.

Materials and Service

Material and building service, like money, are practically unattainable for housing. There has not been material or organized and trained labor enough for all purposes. Bricks have been used for loft-building—not for houses; glass needed for homes has gone into automobiles. There is reason to believe that the scarcity of materials has at least in part been created by curtailment of supply for the purpose of keeping prices high enough to pay large profits. It is apparent that a stronger control by the public of the manufacturing and distribution of essential material is needed. But this alone will not suffice. All unnecessary waste such as advertising, middle men and undue profit must go if we are to bring the cost of housing within the means of the more poorly paid half of the population.

Labor

Workers in the building trades are not giving their full effort. In part this is due to the disorganization that has resulted from the war. But there are more deep-seated causes. Artisans and laborers are discontented perhaps, because they felt that their efforts will not so much serve to promote their own interests as to enrich speculators and landlords who may afterwards squeeze them without mercy. If they felt that buildings were erected for the purpose of serving the need of the workers and the public in general instead of for profit, it might be more possible to get a full and enthusiastic day's work from workers.

Land

The cost of land alone according to the Housing Report of the Reconstruction Commission "is generally sufficient to prevent a large part of the workers from escaping from the slums." The value of land increases with the congestion of population. However, the individuals who are crowded together in our cities get none of the increase which results from their being crowded together in insufficient quarters. The land increment is wasted in land speculation; it is ultimately added to the cost of houses. A means must be found to preserve this unearned increment for the use of the community.

Planning

Even if there were available and cheap enough credit, land, material, and labor to build decent homes for all the housing problem could not be solved without a proper plan. Planning is the function of the architect. Much progress has been made during the last decade in the design of individual houses and groups of dwelling places. But the housing problem of our large cities cannot be solved by more houses. The unrestrained and unguided growth of New York shows the waste that comes from lack of foresight in planning our communities. There is not room for the population to live comfortably, decently or healthfully near their work. Transportation cannot solve the problem. The subways are inhumanly packed. There are not streets enough to care for our traffic. New York has grown without plans to the point where it is choking its own growth. More houses—without a proper plan for their location—can only lead to more congestion and more expensive homes. All effort will be wasted if we further increase the size of our unhealthy and inefficient great cities. We should plan to decentralize our population by developing smaller self-contained communities in which sufficient space is provided for agriculture, industry and organized social life. These should be small enough so that every family may have a garden and every worker may walk to and from his work; and large enough to allow efficient industrial organization and the social, educational, and cultural activities that make city life attractive. They should be surrounded by a belt of land that should be restricted for all time to farming and recreation.

The State

Governmental housing though necessary as a temporary means of averting a crisis, seems dangerous and unsafe as a permanent policy. Municipalities should be given whatever power is necessary, including that of building homes, to avert the dangers that are threatened by the present lack of sufficient houses. But the permanent function of the State in regard to housing should be that of education and of guidance of the various agencies that must need cooperation. For this purpose the State and local housing agencies to give us sufficient, adequate houses, properly placed in relation to work, recreation, and food supply, are badly needed.

The First Step

As a first step forward in the development of such a housing program we endorse the recommendations of the Reconstruction Commission of the State of New York:

1. That a law be enacted requiring the appointment of local housing boards in communities having a population of over 10,000 and the appointment of a central State housing agency for coordinating local effort.
2. That a constitutional amendment be enacted per-

mitting extension of state credit on a large scale and at low rates to aid in the construction of moderate priced homes.

3. That an enabling act be passed permitting cities to acquire, and hold or let, adjoining vacant lands and if necessary to carry on housing.

J. A. HOPKINS
ANDREW THOMAS
FREDERICK L. ACKERMAN
CLARENCE S. STEIN
*ALBERT S. BROCKWAY

*Mr. Brockway dissented from the conclusions of the committee.

Comment on the Minnesota Chapter's Report on the Crisis in the Building Industry

In reply to the questionnaire sent out by the Senate Committee on Reconstruction, the Minnesota Chapter of the Institute submitted an interesting reply, which seems to invite comment. After a few introductory paragraphs the report goes on to say: (The questions asked by the Senate Committee are in italics.)

Information as to the shortage of housing and industrial construction. "The shortage of housing of all kinds in Minneapolis is no doubt typical of conditions to be found in all parts of the Chapter's territory and the relative need for additional buildings can be appreciated by the following information in regard to Minneapolis:

"In 1914 there were constructed accommodations for 2,832 families; in 1915—4,554; in 1916—4,913; in 1917—1,783; in 1918—824; in 1919—3,021; and in the first six months of 1920—1,035. There is a shortage at the present time of accommodations for about 4,200 families with an additional shortage of industrial and business accommodations for about 380 firms."

Whether the shortage is increasing or decreasing. "The shortage of housing and industrial construction is decreasing."

The effect of the shortage on industry and public welfare. "The effect of the shortage is the increasing of rents from sixty to one hundred per cent, discouraging alike to families and to business enterprises, causing crowding in living quarters, undermining of the morals of community life, and is discouraging many citizens as to the future."

The remedial measures which have been taken affecting the various localities or industries. "As a remedial measure to assist the building of homes, especially those of smaller type, a Minneapolis Home Financing Corporation was organized with a captial of $500,000 which advances the needed capital for home construction up to 80% of the cost of the building at 6% interest, providing the owner has a building lot clear of debt and is able to finance the balance of cost of building, 20%.

"The Northwest Terminal Corporation, of Minneapolis, with a capital of $3,000,000 for developing an industrial tract of 250 acres, is providing facilities for the acquirement of industrial building lots on easy terms. It is erecting a modern and commodious terminal for the accommodation of various industries seeking new location in Minneapolis, as well as industries established here seeking larger quarters and better transportation facilities."

The Chapter's views as to the merits of such measures. "While the Northwestern Terminal Corporation is rendering efficient assistance toward relieving the shortage in the industrial expansion, the assistance rendered by the Home Financing Corporation, on account of its small capital and difficulty in obtaining assistance from the banks, is negligible in relieving the great need of home construction."

The Chapter's opinion as to the necessity of Federal action in the present emergency. "Realizing that the interest of the American nations is best served through individual efforts, thus insuring an independent spirit and safeguarding the true democratic ideas of the nation, the Minnesota Chapter of the A. I. A. does not believe in paternalism, but it does demand from the Government the administration of the affairs of the nation along modern, efficient business lines.

"While the establishment of Federal Home Loan Banks is in many ways similar to the Federal Farm Land Banks, and as suggested from many sources would possibly assist the home builders in obtaining the needed funds for home construction on long, easy terms, the Chapter believes that a scientific revision of the present Federal tax system as well as the burdensome state and community tax system would be a step in the right direction. For example, the exemption from Federal taxes of at least $40,000 mortgages on homes, in the hands of any one person or corporation, would greatly stimulate the provision of funds for home building. The further exemption of Federal income taxes of $5,000 to these tax papers who will build new homes in addition to state and local tax exemptions of $3,000 on each dwelling for a period of five years from the time of building, will be encouraging to the building and owning of homes.

"We believe the shortage of housing is due to many factors of which the war is but one; it is an indication of evils the results of which have been cumulative. The natural right to possess and enjoy every necessary thing that enters into the living of the population, whether it be food, clothing or habitation, is something that the law does not properly safeguard.

"There must eventually be developed a comprehensive plan for the conduct of business in its relation to the necessities of human existence. Conveniences like gas and street cars are restricted in the rates to be charged; no protection, however, exists which has for its object the fostering of family life. We believe the strength of the Nation depends on proper living conditions; in fact, we believe proper living conditions are an inherent right and that the time should be made to come quickly when such conditions will be possible and with a similar restriction on inflated costs and other forms of greed that are in force in relation to public utilities. The solution of the problem rests on much more important factors than money. Constructive ability can be had and utilized that will bring about, in the housing difficulties of the people, results comparable to those in finance that have been the outcome of the Federal Reserve Act."

There are several interesting features in this recital. We are first assured by the report that the situation is growing less tense, and then shocked by the alarming statement that the housing shortage is having for its effect

the undermining of the "morals of community life" and that the public is discouraged at the outlook. The final note is evidently meant to carry and when we are told that their housing shortage which, expressed in terms of money, amounts to at least $25,000,000 is being ministered to by a corporation with a capital of $500,000 whilst at the same time a company with a working fund of $3,000,000 is assisting in the building up of the local industrial requirements we need seek no further for the cause of the display of pessimism.

Having thus presented the situation the Chapter goes on record as opposed to "paternalism" and as in favor of "modern efficient business." Agreed as to paternalism, but what is the meaning of the phrase "modern efficient business." More than by any other one thing modern life is governed by business for profit and as this theory gains in force and general acceptance the housing scarcity develops. Charted, their lines would, in a rough way, be parallel. This is a cold hard fact that can not be evaded by any emotional outbursts. Empirical methods have taught us that good housing has a beneficial effect on business and that good business has an injurious effect on housing. Both reactions are primary but when business elevates the standard of housing, as upon occasion it does, it is pursuing a course quite incidental to its own main interest. In the face of this the Minnesota Chapter seems to demand as a cure an extra dose of the toxin which is poisoning us.

When the Chapter suggests that dwellings should be exempted from taxation it is proposing in effect a subsidy. At least under the dogma of equal taxation it is a subsidy. Let us review England's recent experiment in paternalism. In order to stimulate the building of dwellings she offered first, a subvention to be raised out of taxation with the State assuming all the loss that could not be written off from the rent obtainable; second, a direct cash subsidy of 160 Pounds maximum, and then she increased the subsidy to 260 Pounds maximum, to any one who will build a house of a certain kind and type. There has been practically no response and there is no reason to expect that tax exemption will meet with any more success. Both schemes are subsidies in that the government is asked to appropriate directly or indirectly sums of money to the building of a house. Why lift up hands in horror at the word and wink at the deed?

I confess I can not follow the argument of the last two paragraphs. In view of the economic principles to which the Minnesota Chapter declares allegiance it is not possible that they really wish the law to recognize as a natural right the "possession of every necessary thing that enters into the living of the population." In spite of the fact that there is a certain indefiniteness in its language the proposal goes to the extreme limit of socialistic theory. I wonder if this thing has occurred to the Minnesota Chapter.

In the last paragraph it is inferentially proposed that the price of those things fostering family life be regulated by law. Now this goes still a little further and opens unexplored political vistas. The socialists themselves have never thought quite so far. Naturally the only method of carrying into effect such advanced views is the complete socialization of the state for in no other way, conceivable to me, could such an end be attained. Of course the declaration in favor of 19th century individualism with which the paper commences and the unreserved acceptance of advanced socialism with which it ends are rather difficult to reconcile and the explanation for the seeming inconsistency can only be that as the author wrote he converted himself—a very common experience with all thinking writers. The Minnesota Chapter is more fearful of words than of ideas.

John Irwin Bright.

News Notes

LEGISLATION requiring all building plans to be signed by a registered architect or engineer is proposed by the Legislative Committee of the Oregon Chapter, which reported that the recent collapse of a building emphasized the necessity for such a requirement.

CRAFTSMEN'S GUILDS are making progress in Oregon according to a committee report at the last Chapter meeting when it was stated that a joint meeting of all those interested would be held in the near future to consider definite proposals.

PUBLIC INFORMATION has been discussed at all recent Institute conventions. In this day of organized propaganda the problem of diffusing valuable public information is more difficult than ever. The Secretary of the Institute Committee has issued a circular letter outlining a very comprehensive program in which he points out the kind and quantity of material required for this work. Only those who have had experience realize the enormity of the task involved in conducting a sustained effort of this kind over any period of time. The program to which we have referred proposes a kind of Chapter cooperation which ought to make an appeal. If work of this kind is done by voluntary effort that effort will have to come from inside the profession. The only other way to accomplish the purpose is to spend a large sum of money—the method adopted by business concerns or by organizations that seek a business result.

STUDYING the function of a City Architect and outlining a program for his selection has been the task assigned to a special committee of three by the New York Chapter.

CHAPTER MEETINGS and how to make them interesting is a question agitating the minds of a good many Chapter officers. In New York City it has been suggested that luncheon meetings be substituted for the regular monthly evening meetings; that such meetings be called only when necessary to deal with a local situation or when a subject of wide interest was available. At the last discussion on this question it was pointed out that it would be better to have meetings only when a subject of interest was at stake rather than to hold regular meetings and try to find how to make them interesting. Perhaps these suggestions contain a good deal of food for reflection.

INTEREST in the architectural exhibition held in connection with the last Convention of the Institute at Washington was not by any means confined to the limits of the United States. It so happened that Messieurs Greber and Plumet, two eminent Parisian architects, viewed the exhibition and were so impressed with their visit that they gave a glowing account of it on their return

to Paris. As a result the Societe des Artistes Francais has invited the architects of the United States, through the American Institute of Architects, to prepare an American architectural exhibit for the Paris Salon of 1921. The Board of Directors of the Institute will administer the details of the shipment, the cost of which will be defrayed by the French Government, as far as ocean transport is concerned. Shipment to New York, boxing, cartage, and insurance will be pro rated among the exhibitors. Particulars may be obtained from Mr. Julian Clarence Levi, Secretary of the Committee in charge, 105 West Fortieth Street, New York City.

SHORTAGE of skilled workers for house building, is in the opinion of Premier Lloyd George, responsible for delay in carrying out the British Government's programs. To remedy the situation he proposes to dilute the building trades unions with unskilled workers of which he points out there are no less than 60,000 ex-service men available. The unions protest against this action claiming in the first place that the shortage does not exist but that far too many workmen are employed for "luxury building" to make it possible for house building to go on; second, that when the housing rush is over the present skilled workers in the building trade will be left without employment. From knowledge at hand, it would appear that house building in England is being sacrificed for more profitable structural undertakings.

SPEAKING in Parliament in October the Prime Minister stated that England at present is faced with a shortage of 500,000 houses and that it needs an additional 100,000 per annum to take care of normal increase in population. At the same time Dr. Addison, Minister of Health, stated that there had been completed 7,000 houses and that 50,000 more were in various stages of construction while contracts had been signed and work was in progress on the site of about 120,000 houses. This represents however the accomplishment of nearly two years.

THOUSANDS of mummified bodies of the sacred ibis have recently been discovered under the famous ruined temple at Deir Medineh, it is announced by M. Lacau, the French savant. Each bird was in an elaborately decorated vase of earthenware, and surrounded with hundreds of thousands of papyri. The subjects of these are of the widest character, and the work of deciphering them will take years. One of those charged with this work, called it "The waste basket of ancient Egypt."

RECOMMENDATIONS on the method of opening bids was the subject of a lengthy report by the committee on Professional Practice of the Washington State Vhapter. The report was accepted and the members of the Chapter were notified of the committee's recommendations which were as follows:

"The Committee on Practice therefore advises that bids be opened by the architect in conjunction with his client; if advisable, that they be held by the architect for a period of 48 hours, pending the decision of whether any further figuring will be required; should there be none, that the bids then be made public, whether the contract be awarded or not, preferably by the architect mailing to each contractor who has submitted a bid, a list of the contractors estimating, with their bids."

STATE and Municipal legislation "designed to assess upon individual firms or corporations the cost of extinguishing or attempting to extinguish all fires occuring on their premises, when such fires are the result of failure to comply with state and municipal regulations," was approved by the Washington State Chapter on recommendation of the Chapter Committee on Fire Prevention.

Institute Business

Important Announcement on Registration Laws

The subject of joint registration laws for architects and engineers was discussed at the convention in Nashville in 1919, when the Institute definitely recorded itself as not in favor of such laws. At the 1920 Convention in Washington the subject was dealt with in the report of the Committee on Engineering Cooperation which reported that "cooperation between architects and engineers was desirable in formulating basic laws involving the registration or licensing of architects and engineers. That does not commit either the architects or the engineers to a joint registration board or a joint law, but it does say that they should cooperate. The Committee asks for an extension of time in which to make a definite recommendation as to the method of that cooperation." The report was adopted with power to the Board.

The work of the Committee on Engineering Cooperation was continued and at the November meeting of the Board it presented its recommendations which were "that the many points of contact between the architectural and engineering professions make it desirable for them to favor the passage of joint registration laws." The report of the Committee goes on to suggest methods of administration, protection of title, and examination.

The recommendations of the Committee seem to be contrary to the position taken by the Institute in Convention assembled.

Coincidently with the submission of this report to the Board at its meeting in St. Louis on November 19–20, there was held the meeting of the Association of Architectural Registration Boards, attended by 36 delegates from 25 states. Of 20 states having registration laws, 18 were represented and an expression of eagerness to cooperate with the Association was received from the other two states. The Association recorded its unanimous opinion that joint registration laws for architects and engineers were not desirable, thereby supporting the action of the Institute as it stands recorded at present.

Accompanying the report to the Board of the Committee on Engineering Cooperation there was submitted the proposed Joint Registration Law. The Board, although having power to affirm this law, deemed it wise to refer it to the Institute Committee on Registration for study and report at the next Board meeting.

Unfortunately, the report of the Committee on Engineering Cooperation was published, in one of the architectural publications, previous to the submission of the report to the Board, and was accompanied by comment calculated to give the impression that the report of an Institute Committee is the same as an Institute action. As a consequence there have been many inquiries from architects throughout the country for an explanation of this very misleading occurrence.

In order that the actual position of the Institute might be made public without delay the Board of Directors sent the following telegram to the Engineering Council:

"The American Institute of Architects in past Conventions is on record cordially favoring cooperation with engineering societies, but opposing joint legislation for state registration. The National Council of Architectural Registration Boards now in session, has by unanimous vote expressed its opinion that joint registration boards are not desirable for the best interests of either profession. The joint registration bill just received by the Board of Directors will, however, receive the most careful consideration and action at next Convention. In the meantime, where simultaneous legislation has already been initiated, Institute members will endeavor to obtain laws which will secure to each profession independent action and control of examination and issuance of registration certificates. The Institute regrets premature publication in architectural press of joint committee report before it was received by the directors and trusts you will not assume the report of a committee as the action of the Institute."

The following are notes from the meeting of the Board of Directors held at St. Louis on November 19-20, only a brief account of which is possible in this issue, owing to the lateness of the date:

The Convention of 1921

The Fifty-fourth Annual Convention of the Institute will be held in Washington on May 11, 12, 13, 1921.

Fellowships and Honorary Membership

As the Committee on Fellowships has not concluded its work of studying the question of Fellowships, and of the methods of nomination thereto, the Jury of Fellows resolved that there should be no nominations to Fellowship at the Fifty-fourth Convention.

Architectural Exhibition

The Board resolved, that in view of the great success of the architectural exhibition in connection with the last convention, and the general appreciation so widely expressed, an exhibition should again be held at Washington, next May. (It will be remembered that the last Convention requested the Board to make the exhibition a permanent feature of all future Conventions).

A Gift of $25,000 to the Institute for Educational Purposes

The Treasurer announced to the Board that a friend of the Institute, who for the present desires to remain anonymous, has generously offered the Institute the sum Twenty-Five Thousand Dollars, the income thereof to be used for the purpose of architectural education, in connection preferably with the American Academy in Rome. The Board requested the Treasurer to communicate to the donor an expression of the grateful appreciation of the Institute at this signal recognition of the art of architecture—a recognition which most assuredly will be shared by the whole profession of the United States. The details of administration will be announced later.

New Members Elected

Name	*Chapter*
Riggin Buckler	Baltimore
Robert A. Greenfield	Buffalo
Edmund Hermann	Cleveland
Henrik Wallin	Georgia
Rudolph S. Adler	Georgia
Walker D. Willis	Georgia
Fermor Spencer Cannon	Illinois
Ralph C. Harris	Illinois
F. Julius Dreyfous	Louisiana
Frank A. Abrahamson	Minnesota
Edward T. Fallows	Minnesota
Stirling Horner	Minnesota
Frederick C. Klawiter	Minnesota
Clyde J. Schuemacher	Minnesota
Fred A. Slifer	Minnesota
F. A. Brinkman	Minnesota
Olaf Thorshov	Minnesota
Herbert F. J. Bartlett	New Jersey
Kenneth W. Dalzell	New Jersey
Charles H. Higgins	New York
James C. Mackenzie, Jr.	New York
Henry Oothout Milliken	New York
Prentice Sanger	New York
Mott B. Schmidt	New York
Richmond Harold Shreve	New York
Clarence S. Stein	New York
W. J. H. Houch	Philadelphia
Ellery K. Taylor	Philadelphia
Alfred F. Shurrocks	Rhode Island
Frank Cann	St. Louis
Roy Seldon C. Price	St. Louis
Edwin Joseph Symmes	San Francisco
William Templeton Johnson	Southern California
Richard S. Requa	Southern California
Edward C. Taylor	Southern California
William Horace Austin	Southern California
James J. Broadwell	Tennessee
Charles A. Ferguson	Tennessee
George Mahan, Jr.	Tennessee
R. J. Regan	Tennessee
Fred C. Stone	Tennessee
John J. Weller, Jr.	Tennessee
Louis U. Bruyere	Toledo
Charles A. Langdon	Toledo
Charles J. Calrow	Virginia
Wickham Custis Taylor	Virginia
Edmund Bradford Tazewell	Virginia
Harold Holmes Wrenn	Virginia
Finley F. Ferguson	Virginia
Merrill C. Lee	Virginia
John K. Peebles	Virginia
James E. Cooper	Washington, D. C.
Charles Allen Merriam	Washington State
Ambrose J. Russell	Washington State
Frederick Westcott	Washington State
Harry W. Bogner	Wisconsin
Leon M. Gurda	Wisconsin
Charles L. Lesser	Wisconsin

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with professional societies, organized bodies, and the following Committees of the Institute, working toward improvements in building materials and methods, and higher ideals in the sheltering of humanity:

BASIC BUILDING CODE, CONTRACTS, FIRE-PREVENTION, STRUCTURAL SERVICE

The Experience Pool

UNDER this caption, the Committee on Structural Service will record from time to time, statements of experience received in connection with investigations conducted for the purpose of answering inquiries addressed to the Committee.

Concrete Vats for Tanneries. (35123)—To secure authoritative information for use in answering an inquiry on the treatment of concrete vats for tanneries, the Structural Service Committee communicated with a large number of laboratories, manufacturers and tanneries. No disinterested technical laboratory could be found that had conducted any research to determine the action of various tanning liquors on concrete. Practically all manufacturers of integral compounds and protective coatings claimed efficiency for their products but presented little authoritative data to substantiate their claims. The following is a digest of the replies received that contained data of value or interest:

Replies from Manufacturers. (a) The Gardner-Barada Chemical Company states that it has tested fluo-silicates, insoluble soaps, oil films, asphaltic and coal tar bases and found them all open to objection, in that they are not fool proof. They are now experimenting along a different line; *e. g.*, they are attempting to impregnate the concrete surface to a reasonable depth with an acid resisting material which, when applied to excess, will form a waterproof coating.

(b) L. Sonneborn & Sons claim that tests conducted in their own laboratory show that concrete treated with Lapidolith is not affected by Oleic Acid, whereas considerable destructive action was observed on untreated specimens.

(c) The Barrett Company recommends an application of Coal-tar pitch. They claim that the same result may be obtained by the use of their Eternium paint.

(d) The General Plasters Supply Co. state that the only acid proof coating that they have found to be satisfactory is a mixture of asphaltum and pitch.

(e) The Portland Cement Association describes a series of tests on the treatment of concrete vats as follows:

"Dr. Cushman, Director of the Institute of Industrial Research, Washington, D. C. carried on a number of experiments for the Association, which included some investigations into the effect of tannin liquors on concrete. The material which he used was, we understand, practically 100 per cent que-bracho extract. Small tanks were made of a 1:2:4 concrete, several of which were treated with special coatings—others untreated. The plain concrete tanks were fully as satisfactory as the treated ones. During these tests for the first three months some slight action upon the concrete was caused by the tannin solution, but this was very slight and soon ceased, the tanks having in fact become tanned."

"This action of the tannin liquors upon the cement, though slight, is of such a nature as to produce dark coloring upon the leather tanned in new tanks. For this reason it is recommended that a new concrete tank be well tanned with the liquor before the leather goods are introduced. After each refilling, a sludge was deposited in the bottom of the tanks, but similar deposit also formed in the glass containers. Both are due to a settlement of heavy organic matter. It is safe to state that at the present time plain portland cement concrete is suitable for the storage of tannic solutions."

It also appears from the investigations of the Portland Cement Association that free lime in concrete used for tanning vats is detrimental. Therefore no lime should be used in the mix, the water content kept as low as possible, the use of limestone avoided; the use of gravel is favored. A dense, well graded mix, at least 1:2:4 should be used. They recommend that for normal solutions the interior of the tank be given a brush coat of neat portland cement or plastered with 1:2 portland cement mortar, and for concentrated solutions the interior surface of the tank be coated with tar, asphalt or other bituminous acid resisting paint.

Replies from Tanneries. (a) Kistler, Lesh & Co., Morgantown, N. C., state that they use concrete tanks for storage purposes and for lime and soak vats. Mix, 1:2:3. Aggregate, crushed granite. Hydrated lime was added to the cement and no waterproofing or hardening treatment. The results have been satisfactory.

(b) F. C. McCordick, St. Catharines, Ontario, state that their concrete tanks have been satisfactory except those used for pure mineral solutions. These they state should be coated with asphalt pitch. They used a concrete composed of one part portland cement to six parts gravel. ("Gravel" evidently means sand and gravel, bank run.)

(c) The Ashland Leather Co., Ashland, Ky., state that they are using concrete vats in their beam house and for water soaks, but not for tanning. No waterproofing or hardening compound was used. Results have been satisfactory.

(d) Wm. Taylor, Parry Sound, Ont., states that he is using concrete vats for tanning with satisfactory results. The concrete used was mixed one part portland cement to five parts of gravel. The gravel was about 50% small stone and 50% sharp sand. A brush coat of neat cement was applied to the walls after the forms were removed.

Conclusion.—From the data received, it appears:

(a) That untreated concrete vats have in many instances given satisfactory service.

(b) That no lime should be used in the mix and that the water content be kept as low as possible.

(c) That gravel and crushed granite are preferable to limestone.

(d) That a dense, well graded mix, at least 1:2:4, should be used.

(e) That for concentrated solutions the interior surface of the tank should be coated with tar, asphalt or other acid resisting paint.

Reviews

Insulation of Warm Air Pipes and Ducts. (30b2)—The Engineering Experiment Station of the University of Illinois is conducting in cooperation with the National Warm-Air Heating and Ventilating Association, an investigation having for its object the determination of the efficiencies and capacities of warm air furnaces and a study of the proper conditions of installation and operation, so that furnaces may be accurately rated and properly selected for the requirements of actual service. Several publications dealing with the investigation have been issued.

In Bulletin No. 117 "*Emissivity of Heat from Various Surfaces*" by V. S. Day is given the results of comparative tests on covered and uncovered sheet metal surfaces as commonly used in connection with warm-air furnace installations. The results of these tests seem to indicate the advisability of a radical revision of some of the generally accepted methods for the insulation of warm air pipes and ducts. The following significant results as applied to warm-air furnace heating are deserving of especial emphasis.

1. The use of thin sheets of asbestos paper on bright tin heat pipes results in a waste of heat.
2. Uncovered bright tin pipes are more efficient carriers of heated air than asbestos paper-covered bright tin pipes.
3. This fact is true regardless of the degree of brightness of the tin surface.
4. No small number of applications of asbestos paper will suffice as an insulator. Eight thicknesses of 12 pound asbestos paper are necessary to make the pipe as efficient as a bright tin uncovered pipe.
5. The accumulation of dust and dirt on the pipes does not greatly alter the amount of the loss.
6. Galvanized iron is practically as efficient as bright tin.
7. The painting of both covered and uncovered pipes results in a loss of efficiency, especially when applied to uncovered pipes.
8. The fact that pipes are partly protected from convection currents of air by joists and studding does not greatly affect the loss.
9. Double wall tin pipes are efficient.
10. Air-cell asbestos coverings are efficient.

The following table gives the relative efficiency of the various materials and methods of construction tested. I C bright tin, uncovered, is used as a basis of comparison and the various items are listed in the order of their efficiency.

	(*Relative efficiency Per cent.*)
1. Galvanized iron with 1¼″ asbestos-cell blocks covered with ½″ asbestos cement and a cheese-cloth wrapper	392.0
2. I C tin with 3 thicknesses of air-cell asbestos and 1 thickness of 10 pound asbestos paper	226.0
3. Galvanized iron, No. 28 U. S. S. gage with 3 thicknesses of air-cell asbestos and 1 of 12 pound paper	222.0
4. I C tin with I X tin casing surrounding, with 5/16″ air-space. No vent holes	216.0
5. I C tin with I X tin casing surrounding, with 5/16″ air-space and with six ½″ vent holes cut in the casing	183.0
6. I C tin with 1 thickness of air-cell asbestos and 1 thickness of 10 pound asbestos paper	147.0
7. I C tin with I X tin casing surrounding, with 5/16″ space between filled with dry J. M. asbestos cement	142.0
8. I C tin with 8 thicknesses of 12 pound asbestos paper	101.5
9. I C TIN, NOT INSULATED, BRIGHT	100.0
10. I C tin with 7 thicknesses of 12 pound asbestos paper	97.0
11. Galvanized iron, No. 28 U. S. S. gage	96.0
12. I C tin nickel plated and polished	96.0
13. I C tin with 6 thicknesses of 12 pound asbestos paper	92.0
14. I C tin previously painted but paint removed, and a housing of compo-board construction, to represent joists, built around same. Housing 8″ deep by 14″ wide by 26″ long	89.5
15. I C tin, not insulated, bright, with ash dust sifted on 1/16″ deep	89.0
16. I C tin with 5 thicknesses of 12 pound asbestos paper	89.0
17. Same as No. 14 with housing removed	84.3
18. I C tin coated with Bakelite lacquer	81.5
19. I C tin with 4 thicknesses of 12 pound asbestos paper	76.5
20. I C tin with 3 thicknesses of 12 pound asbestos paper	71.5
21. I C tin with 1 thickness of 10 pound asbestos paper and a surface of glaze finish printers' proofing paper	71.0
22. I C tin with 2 thicknesses of 12 pound asbestos paper with ash dust sifted on 1/16″ deep	70.5
23. I C tin with 2 thicknesses of 12 pound asbestos paper	68.1
24. I C tin with 1 thickness of asbestos paper covered with a firm coating of white calcimine	62.5
25. I C tin with 1 thickness of 10 pound asbestos paper	61.5
26. Same as No. 24 with lampblack calcimine on the surface used in that test	60.5
27. I C tin with 1 thickness of asbestos paper and 2 applications of gray paint (of zinc, linseed oil and lithopone composition)	59.5
28. I C tin with two applications of gray paint (of zinc, linseed oil and lithopone composition)	57.5
29. Black iron, No. 29 U. S. S. gage, very rusty	54.0

The National Fire Protection Association in reply to an inquiry from the Structural Service Committee relative to the precautions necessary to be taken in the event that the covering of warm air pipes with asbestos paper be discontinued, state:

1. That the N. F. P. A. have never advocated the use of thin asbestos paper.
2. That the protection of adjacent combustible material from the heat of hot air pipes is best accomplished by that same protection which will most effectively insulate pipes.
3. Double walled tin pipes with one-half inch air space between the two walls have been recommended as affording the best fire protection.
4. If double walled pipe is not used a corrugated or cellular asbestos, at least one-half inch thick, should be used.
5. Where horizontal hot air furnace pipes are placed more than six inches below wooden floor beams no special protection will be required in ordinary cases.
6. If the distance is less than six inches and more than three inches the woodwork should be protected by tin applied directly to wood.
7. The pipes should not run closer than three inches to the floor beams.
8. Where passing through combustible partitions or floors there should be a double pipe with at least one inch air space.
9. Vertical pipes in studded partitions should be double tin with one-half inch air space between.
10. The outer pipe should not be within one inch of wooden studding.
11. Metal lath should be used to cover the portion of the partition in which the hot air pipe is located.

Tests of Aged Cements in Concrete Mixtures. (3a1)—The Bureau of Standards, in Technical News Bulletin No. 40, publishes the following report of tests to

determine the strength of concrete made from cement which had been in storage about a year and a half.

"The cement as received was first put through a sieving process to remove the lumps. The cement after sieving, as well as the crushed lumps were then made into separate concretes which were compared with concrete made from cement recently purchased in the local market. It was found that a 1:1¼:2½ mix of the old cement would give approximately the same strength as a 1:2:4 mix of fresh cement, and it was recommended that the lumps be sieved out of the old cement before using. Similar tests were conducted on aged cements submitted by the U. S. Engineer Office at Vicksburg, Miss. The results indicated that a 1:2¼:4½ mix of the aged cements gave approximately the same strength as a 1:3:6 mix of fresh cement."

Lime. (3c)—The Bureau of Standards has issued the second edition of Circular No. 30; "Lime: Its Properties and Uses." The following is an abstract of the information contained in this circular which relates to the manufacture, kinds, and architectural uses of lime. The circular also includes discussions on the uses of lime in chemical industries and on the testing of limes, but they are not covered in the abstract.

Definitions.—LIME is merely limestone from which the carbon dioxide has been removed by heat. GROUND LIME is lump lime which has been ground and screened, generally through a 60-mesh screen. HYDRATED LIME of commerce is a fine, dry powder prepared by adding just sufficient water to quick lime to insure complete slaking.

Standard Containers.—Lump lime is shipped in bulk or in wooden barrels holding 180 or 280 pounds net. Ground lime is shipped in air tight iron casks. Hydrated lime is put on the market in paper sacks of 50 pounds each.

Classification.—The wide variation in the chemical and physical properties of limestone necessitates a similarly great difference in the kinds of lime. The system of classification adopted by the American Society for Testing Materials is as follows:

High calcium; not less than 90% calcium oxide.

Calcium; not less than 85% nor more than 90% calcium oxide.

Magnesian; not less than 10% nor more than 25% magnesium oxide.

High magnesian; not less than 25% magnesium oxide.

The total amount of impurities (exclusive of carbon dioxide) shall not be more than 5% in selected lime, or 7½% in run-of-kiln lime.

Burning.—Both manufacturer and consumer are interested in having the lime burned at the proper temperature. This is recognized in all specifications by the statement that the lime must be well burned. A closer definition of this property may be based on the fact that both underburned lime and overburned lime will slake more slowly than that which is properly burned. The rate of hydration, therefore, indicates the burning temperature.

Underburned lime is produced when the temperature of burning is too low or the time too short. The calcium carbonate which is then retained in the lime acts merely as an inert filler. It also does not contain so much of the active calcium oxide and its reactions will consequently be much less.

Overburned lime is produced when the temperature of burning is too high or the time too long. It will react similarly to lime burned in the proper manner, except that the reactions will take place much more slowly. Especial care should be taken to insure its complete hydration before using. Some of the compounds formed by the impurities in the lime hydrate very slowly, so that it is hardly practical to use an impure, overburned lime for the final coat of plastering.

The temperature at which lime is burned may vary from about 900 degrees C. to 1200 degrees C., or a little higher if the stone is very pure. Under ordinary conditions Calcium Carbonate (limestone) will break up at 898 degrees C. At about 1200 degrees C., other impurities form chemical combinations with the calcium oxide. This results in incipient vitrification on the outside of the lump, so that when water is added it can not penetrate so readily. However, the activity of the impurities becomes noticeable much below 1200 degrees C., and therefore the lower the temperature at which the lime is burned the better will be its quality. This is the reason why wood-burned lime generally commands a higher price than that burned with coal.

Slaking.—To prepare lime for use in building or plastering operations, it must first be slaked. This is accomplished merely by the addition of water, but there are several points to be noted in this connection. Calcium oxide generates so much heat during slaking that unless this heat is removed or some means provided to prevent too great a rise in temperature the lime will burn. Burned lime will not slake and acts very similarly to ground limestone. If every particle of lime is in intimate contact with plenty of water, this water will absorb the heat generated and prevent burning. However the use of too much water is apt to be detrimental to the quality of the product. By keeping the temperature of the mass too low, the excess water slows down the reaction and this through some unknown mechanism, impairs the plasticity of the product. This phenomena is known as "drowning."

The slaking of quick lime should always be done by a skilled workman, preferably one who has had experience with the particular kind of lime he is called upon to slake. When lime is exposed to the air it absorbs carbon dioxide and water. This air slaking is accompanied by the generation of heat. Completely air-slaked lime is practically identical with finely ground limestone, and therefore has no value, as lime, for building or chemical purposes.

Setting—The setting of lime is caused first by the evaporation of excess water, and finally by the absorption of carbon dioxide, causing the lime to revert into calcium carbonate. Therefore, setting will take place more rapidly if the amount of carbon dioxide in the air is increased, as, for example, by the use of salamanders. Dry carbon dioxide will not react on dry slaked lime, so that it is necessary for the air to be moist. Indeed, it is advisable to soak the mortar thoroughly at frequent intervals during the setting process.

Comparison of Magnesian (Dolomite) and High Calcium Lime.—Whether dolomite or a high calcium lime is best

suited for building purposes, has long been an important question for both lime manufacturers and builders. In considering the question the following points of difference between the two limes should be noted, although, due to different porosities of the stone or to different conditions of burning, the properties of each are subject to radical modifications.

High-calcium lime slakes quickly and generates a large amount of heat, hence it is apt to burn if not watched carefully. A magnesian lime slakes slowly, generates comparatively little heat, and is never in danger of burning. Care should be taken to prevent its "drowning."

High-calcium lime increases in volume more than a magnesian lime, and requires more water, both for the hydration and the formation of a paste and carries more sand.

Magnesian mortars generally work more smoothly and freely under the trowel, while high-calcium mortars are apt to be sticky and work "short."

In the process of setting a high-calcium lime shrinks noticeably, while the change in volume of a magnesian lime is much less.

High-calcium limes set more quickly than magnesian limes.

Magnesian limes are generally more nearly white than high-calcium limes.

As to the actual strength of the two mortars, recent tests conducted by the Bureau of Standards indicate that mortars made of dolomitic (magnesian) limes are stronger than those made of high-calcium limes. The strength of a lime mortar, however, depends on a variety of conditions, chief among which is the method of preparing it.

Masons generally prefer magnesian lime because it works more smoothly and sets more slowly. This permits of a larger batch of mortar being made up and gives the mason plenty of time to spread it. The contractor prefers a quick slaking lime so that the job can be finished as soon as possible. The fact that a high-calcium lime gives a larger volume of putty and carries more sand is also of advantage to him.

The usefulness of lime as a building agent probably depends more on the method in which it is handled than on its content of magnesium. Aside from the large cities, where machine mixed mortar can be had, the slaking of lime is gneerally left to unskilled labor. In such cases the kind of lime to use is the kind the laborer is accustomed to handle.

Hydrated Lime. The outstanding feature in the development of the lime industry is the rapid growth of the manufacture of hydrated lime in comparison with quicklime. It has found a wide market for addition to concrete in the construction of both buildings and roads. The practice of adding it to cement mortar for laying brick is almost universal. As a plastering material, its greater convenience has made it a serious competitor with lump lime, especially in the large cities where space and time are important considerations.

Hydrated lime is prepared by adding to quick lime just sufficient water to insure complete slaking and under such conditions that the heat generated will evaporate all the excess water, leaving the product dry. Since slaking is accompanied by an increase in volume, the lumps of lime fall into powder during the process. Any impurities in the lime will not slake, will not fall into powder, and consequently any large particles of them can be removed from the finished product by screening. It, therefore, generally contains less impurities than the lime from which it was made.

Hydrated lime consists essentially of calcium hydrate and magnesium oxide, for it is generally conceded that the magnesia does not slake during the ordinary process of manufacture. The quantity of water contained varies from 24.3% for pure high calcium hydrate to 11.3% for impure dolomite hydrate.

Varieties.—There are many varieties of hydrated lime, depending on the fineness of the grain. It can be obtained screened through any mesh from 10 to 200.

Mixing with Water.—To prepare hydrated lime for use the mere addition of water is necessary. It is a rather difficult powder to wet, however, so it is advisable to let the hydrated lime and water stand for 24 hours before using. Or it can be used immediately if the hydrated lime is added to the water rather than water added to the hydrated lime.

Comparison with Quicklime.—In building and plastering operations hydrated lime may be used for any purpose in place of lump lime with precisely similar results. The consumer must pay the freight on a large amount of water, but the time and labor required for slaking lime is eliminated, and there is no danger of spoiling it either by burning or by incomplete slaking. The experience of the laborer is eliminated as a factor.

Hydrated lime will keep better than lump line, because the powder packs together into a dense mass, rendering the penetration of carbon dioxide very difficult. It can be stored with absolutely no danger of fire. For plastering hydrated lime will generally be found more economical and convenient to use than lump lime and especially for the final coat is frequnetly preferred. Similar results will be obtained by the addition of either hydrated or quicklime to cement mortar, but from the nature of the substance hydrated lime is more suitable.

Hydrated Lime in Cement Mortar.—In a series of experiments in which the portland cement in the mortar was replaced by varying amounts of hydrated lime it was found: (1) That hydrated lime up to 15% (by weight) of the cement does not materially affect the strength of the mortar, even when stored under water. (2) This amount of hydrated lime will materially increase the imperviousness to water of even a 1:5 cement mortar. (3) The addition of hydrated lime increases the plasticity of the mortar and makes it easier to work.

Lime Plaster.—Lime to be used for plastering must work smoothly under the trowel, must not "pop" or "pit" and must not undergo too great a change of volume during setting, and if it is to be used for the finish coat, it must have a good color. The cause of popping or pitting is not very well understood. In some cases it has been attributed to the impurities in the lime, such as clay, iron oxide, silicates and pyrites. These seem to form various chemical compounds during the burning, which hydrate

very slowly and expand during the process. For this reason it is generally conceded that lime to be used for plastering must be more nearly pure than that for any other purpose.

Another probable cause of popping is the slow hydration of particles of calcium oxide which have been burned during slaking. This is one reason for the preference of magnesian lime for plastering, although extraordinary care must be taken to slake the lime properly, whichever kind is used. Recent experiments lead to the belief that impurities in the sand are frequently responsible for popping.

Lumber. (19a)—The following are abstracts from the Technical Notes of the Forest Products Laboratory, U. S. Forest Service, Madison, Wis.

Charring does not preserve wood, No. 108.—Theoretically an area of charred wood around a post should prevent decay, because charcoal does not decay or encourage the growth of fungi. Tests on charred posts, however, indicate that they may be even less durable than the untreated ones. The charred area around a post is not usually a solid covering. It is checked through in many places. If posts are seasoned before they are charred, the charring does not reach to the bottom of the season checks which are always present. If green unchecked posts are charred, checks will open through the charred part as the wood seasons. In either case the uncharred center of the post is exposed to fungus infection and will decay as rapidly as any untreated wood. Charring deep enough to resist decay would undoubtedly weaken a post of ordinary size.

Saving Mine Timbers from Decay, No. 110.—The life of mine timbers might be greatly lengthened by the injection of certain chemicals. At least three preservatives have been found suitable. These are coal-tar creosote, zinc chloride, and sodium fluoride.

Creosote is the most effective in preventing decay. Timbers thoroughly impregnated with it are likely to resist decay until they are crushed or worn out. Occasional objection is made to the possible fire hazard of creosoted wood, but long experience indicates that the additional fire risk is very small.

Zinc chloride and sodium fluoride are odorless, and if anything they tend to reduce the inflammability of wood. They are cheaper than creosote, and although they do not give such permanent protection they greatly increase the life of timbers.

Coal-tar creosote may be applied by the brush, dipping, open-tank, or pressure methods. Zinc chloride and sodium fluoride may be injected by the steeping, open-tank, or pressure methods. The cost and effectiveness of the methods of treatment increase in the order given.

Color of Cypress Heartwood No Indication of Durability, No. 113.—Southern bald cypress is variable in color. In different localities it is known as RED CYPRESS, YELLOW CYPRESS, WHITE CYPRESS, and BLACK CYPRESS. Service records indicate that any difference in the length of service of red cypress and yellow cypress is due entirely to a difference in the amount of sapwood in the timbers, and not to any physical difference in the character of the heart wood. Cypress trees with light colored heartwood usually have more sapwood than those with dark colored heartwood, and sapwood is not resistant to decay. The important consideration, if durability is desired, appears to be to select the heartwood of cypress regardless of its shade.

How To Tell Birch, Beech, and Maple Apart, No. 116.—These woods are very similar in appearance, have approximately the same weight and one of them may be easily mistaken for another. They may be distinguished, however, by the relative width of the pores and medullary rays.

If the end grain of the wood is cut smooth and examined with a hand lens, the pores will be seen as tiny holes distributed fairly evenly over the surface, and the medullary rays will appear as narrow lines of a different shade running at right angles to the growth rings.

In BEECH some of the rays are very distinct even without a lens. The large rays are fully twice as wide as the largest pores.

In MAPLE the rays are less distinct, and the largest are about the same width as the largest pores.

In BIRCH the rays are very fine, invisible without a lens. The pores are several times larger than the rays, usually being visible to the unaided eye as minute holes on the end grain and as fine grooves on dressed faces of the board. The pores in birch are considerably larger than the pores in beech or maple.

The appearance of the medullary rays of a "Quartered" surface is also distinctive. Here they appear in BEECH as distinct "flakes", the largest being between 1/16 and 1/8 inch in height when measured along the grain of the wood. In MAPLE they are considerably smaller, rarely attaining a height of 1/16 inch. In BIRCH they are comparatively inconspicuous.

Comparative Value of Timber Cut from Live and Dead Trees.—"When sound dead trees are sawed into lumber, and the weathered or charred outside is cut away, there is no method known to the Forest Products Laboratory by which the lumber can be distinguished from that cut from live trees, except that the lumber from dead trees may be partly seasoned when sawed.

"All the information available at the laboratory indicates that timber cut from insect or fire killed trees is just as good for any structural purpose as that cut from live trees of similar quality, providing the wood has not been subsequently injured by decay or further insect attack. If a tree stands on the stump too long after it is killed, the sapwood is likely to become decayed or badly infested by wood-boring insects; and in time the heart-wood also will be similarly affected. The same thing is true of logs cut from live trees and not properly cared for. Until the wood becomes affected by these destructive agents, dead tree wood should be just as strong and just as durable as sound live tree wood.

"In considering the subject it may be useful to remember that the heartwood of a living tree is entirely dead, and in the sapwood only a comparative few cells are living. Most of the wood cut from trees is dead, therefore, regardless of whether the tree itself is living or not. Such being the case, purchase specifications, instead of providing that material must not be from dead trees, should state that material showing evidence of decay or insect infestation exceeding a specified limit will not be accepted."

Brass. (15b)—"*Seven Centuries of Brass Making*" is the title of an instructive booklet published by the Bridge-

port Brass Company. It is, as its title implies, a technical history of brass, the art of making which is traced from the earliest known periods down to the present day. The introduction of the electric furnace is referred to and a detailed description is given of its applications to the plant of the Bridgeport Brass Co. The last few pages are devoted to a discussion of the characteristics of brass, additions and impurities, and structure.

The quality of brass has been a matter upon which reliable data for the specifications has been difficult to obtain. While the primary purpose of the booklet is to point out the wide range of physical characteristics that can be imparted to brass by variations in composition, heat treatment and manipulation, it contains nevertheless a wealth of specification data. The following quotations are of interest to the architect:

"Comprehensive attempts to draw specifications for various forms of wrought brass have not been conspicuously successful except in isolated instances. This is because of the absence of reliable data of a specific nature relating the various properties of brass to the requirements of individual users . . .

"Accurate knowledge of the physical properties of brass and the use of scientific methods in its manufacture have not heretofore been of sufficiently wide employment to have resulted in any generally accepted practice in specifying the qualities of brass required for specific uses or in testing it for the determination of its suitability. As a general rule, therefore, the largest measure of satisfaction can be secured when the brass maker is cognizant of the exact purpose for which the material is to be employed and in close cooperation with the user can apply his knowledge and skill to the selection of mixture and treatment best adapted for the purpose."

"The useful alloys of copper and zinc cover a series from about 55 per cent of copper and 45 per cent of zinc up to pure copper, and exhibit a wide range of normal properties and characteristics according to the proportions of the two constituents present."

"Mixtures high in zinc are relatively unimportant because of their comparative lack of toughness which prevents their being readily worked cold. When containing less than 63 per cent of copper, however, they are readily rolled forged or extruded when hot. Within this range they are usually alloyed with other constituents for particular purposes. In the intermediate and lower ranges from 57 to 60 per cent copper, iron and tin are added, either singly or in combination, to the extent of about 1 per cent each, to increase strength, forming the manganese bronzes and naval brasses. The range from 60 to 63 per cent combined with about 3 per cent of lead covers the mixtures usually employed for making "leaded" or "free cutting" brass rod for screw machine use. From 63 to 70 per cent are the high brasses ordinarily employed in making sheet and strip and which constitute by far the greater part of all the sheet produced. Mixtures containing the higher percentages of copper are necessarily more expensive and are required when color or certain qualities of toughness are important."

"The properties of any individual mixture may be varied over a wide range by varying the amount of cold working from the annealed state and by varying the annealing temperatures from the cold worked state. The relative effect which a given amount of cold working or degree of annealing produces varies with the proportions of copper and zinc present."

"The quality of copper ordinarily employed in brass is exceedingly high, containing ordinarily 99.9 per cent or more of copper, the balance being largely oxygen, the presence of which is required mainly to enable the metal to be cast in suitable form."

"Zinc is, however, obtainable in various qualities, the chief variable impurity in which is lead, which is found in various percentages, from a few one hundredths up to as high as 2 per cent."

"The quality of brass is affected to a considerable degree by the amount of lead carried by the zinc of which it is produced. The effect of this ingredient is to lower its toughness, ductility and ability to withstand cold working processes, involving stretching and distortion. The presence of lead also has a very marked effect upon the ease with which brass can be cut with a tool, and where this property is of importance, lead is purposely added up to 3 per cent or slightly over."

"Next to lead the most important impurity carried by brass is iron . . . the effect of iron is to reduce ductility and increase hardness and its influence in these respects is markedly detrimental when present in quantities over 0.1 per cent."

"Tin is sometimes present by accident and sometimes by design. It increases the elastic limit and hardness of the material somewhat and acts as a deterrant to certain corrosive influences."

Garages. (35m)—The Ramp Buildings Corporation has published a standard size booklet descriptive of the *d'Humy Motoramp System of Building*. It is of interest to note that printed on the outside cover is the A. I. A. Standard classification number for filing. This system is described as a building of staggered floor construction, divided into two units by a wall, the level of the floors in one unit being halfway between the level of the floors of the other unit. The main aisles of the two units are connected by inclined driveways. It is thus possible for an automobile to ascend or descend under its own power from any one floor to another. It is claimed that by this method of construction a continuous stream of cars can be handled, that a greater number of cars can be stored in any given floor area and that the system makes self service possible and reduces the number of garage attendants necessary.

Flow of Water in Drain Tile. (29b2)—The U. S. Department of Agriculture Bulletin No. 854 is a fifty page 6"x9" technical publication describing the Department's investigations on this subject. Various formulae for the flow of water in drain tile are given and compared, as well as a detailed description of the experimental plant used in conducting the tests and results of field observations.