

THE AMERICAN ARCHITECT

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CATALUÑAN ARCHITECTURE—I

BY RALPH ADAMS CRAM, F. A. I. A., Lit. D., LL. D.

ALL the architecture of Spain is *sui generis*, and this is true whether it is Romanesque, Gothic or Renaissance. In each of these styles the Iberian triumphs have been supreme, and equally have they marked themselves with extreme individuality. It is useless for anyone to claim full knowledge of any one of these three European styles unless he has seen what they are in Spain, and yet it is only within the last decade—Street only excepted—that anyone has realized that south of the Pyrenees lay a field of architecture and sculpture that for beauty, variety and power ranks easily with those of Italy, France, Flanders and England.

In one respect this Iberian art is more valuable to the creative artist today than all its rivals. These, in varying degrees, tend toward pedantry, or at least toward an academic formalism; Italy most of all, England the least, with the others in between. All western Europe shows periods of frozen formality cutting into the normal spontaneousness of artistic expression, and even the Romanesque and Gothic of France and England tend ultimately toward stereotyped formulae. Even at their highest these great styles are so almost classical in their perfection that their laws and modes and forms dominate the artist, and he must perforce work within their masterly limitations. When, therefore, the modern architect or sculptor, in his heroic labor of trying to win back a modicum of art for an age that knew it not, turns to these old monuments for inspiration he finds, if he follows them closely, that what he builds on this foundation can hardly escape the connotation of archaicism or archæology. Indeed there are those today who are trying in the case of Gothic art equally (and mistakenly, I think) as in that of Greek art to reduce the whole thing to a sort of "efficiency expert" system of geometrical relations, quite missing the fact that these geometrical relations (if they do indeed exist) are because the sense of beauty was so innate and instinctive in the Greek and Gothic artists that what they did exactly related itself to life, and therefore, though on their part unwittingly, to the geometrical laws that inform this same life.

Now in the case of Iberian art (I use this word to include all Spain, Cataluña, the Balearic Isles

and Portugal) there is no such rigidity of form, no tendency toward the academic, no excuse for any attempt on the part of modern scientists to freeze it into formulas. The personality of the several artists, whether they are architects, sculptors or painters, so infuses everything they do that you can trace the hand of one man from one work to another as easily as you can in the most vital periods in Italy. In spite of this brilliant individualism there is no anarchy, no egomaniacal self-assertion, as happens at the present day, for example. An artist never forces himself in place of the idea he has to express, or the power he has to serve, but he does transmute these values through a personality that is infinitely varied and equally stimulating.

There is no more individualistic race than the Spanish, none more self-reliant and personally proud, none more passionately addicted to a real as opposed to a technical liberty. Something of its immemorial history (unbroken as far back as the Phoenecians at least), of its undying passion for adventure, of its six-hundred-year crusade against the Moors for the winning back of its own country, has smitten itself into the race and conditioned it forever. This high-spirited and self-reliant individuality shows through all its art, and just because of this, Spanish architecture whether, as I say, Romanesque, Gothic or Renaissance, is just about the best I know to engage the interest of the student and the safest to use as a basis for further advance.

Spontaneousness, originality, freedom from academic trammels, together with a passion for beauty, a keen sense of what is and what is not beautiful, and an amazing power to accomplish this beauty, mark Spanish art through its entire course. There was but one lapse, the episode of the deplorable Herrera (he of the correct, crushing and ugly Escorial) who, with the mandate and the power of the Emperor Charles V behind him, wrecked Spanish architecture in its glory, and for seventy years, only to have the whole icy and unfortunate and hopelessly correct episode pass in ignominy, giving place to a new and especially Spanish form of Baroque that (like the Restoration in England) was the wild protest of re-enfranchised men against a cold and bitter

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formalism that had no relation whatever to life itself. Barring this Herreresque episode, Spanish art is always Spanish.

I have no intention of trying to write about all the architecture of the Iberian Peninsula, for this would take volumes; moreover I should be hopelessly unfitted for the task. All I mean to do in these papers is to call attention to the church building of the XIV and XV centuries in one

Spanish quality of Aragon, Castile or Andalucia. Also, the Moors were here for a shorter time, a fact to be remembered. Today Cataluña is less Spanish than ever, both politically and by temperament. The Spaniard is courteous, austere, kindly, and with a very high sense of real values as compared with the tinsel values of industrialism and doctrinaire democracy. The Catalan, on the other hand, is arrogant, dogmatic, self-suffi-



province of Spain—the old Kingdom of Cataluña, or rather of its Capital, Barcelona, and its immediate neighborhood, since I came to know these for the first time last winter, was immensely impressed by them, and still have them vividly in mind.

Strictly speaking, Cataluña is not Spain at all, at least not ethnically, or, apparently, by the desire of some of its turbulent inhabitants. In a way it is more French than Spanish—unless Gascony and Languedoc and Roussillon are more Spanish than French—which they actually are, judged by northern standards. Rome left something here on either side the Pyrenees which is indelible, and whatever the language, whether Spanish, French or Catalan, the indwelling spirit is much the same, and different indeed from the

cient and altogether given over to a very capable commercialism and mechanical efficiency, while these, as is always the case, have brought with them rabid communism, a turbulent proletariat and periodical industrial anarchy. Cataluña is about as rich in a material way as all the rest of Spain put together and it looks, not toward Madrid, but rather toward France for its general inspiration and as the goal of its ideal. Barcelona is a French provincial city with its Spanish vestiges hidden around the old Gothic churches and in their neighboring slums.

How far this Gallic predisposition extends beyond Barcelona and its immediate suburbs I do not know, perhaps not very far. Certainly the Balearic Isles are pretty well exempt. It may be that Barcelona bulks too large in the picture



DETAIL OF DOORWAY IN CITY HALL, BARCELONA

(Clixé Arxiu Mas)

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and that the rest of the old kingdom is less tainted than would appear. Certainly in the centuries that saw the development of Catalan Gothic and painting and sculpture, there was no such radical divergence as exists now, in spite of the strong racial diversity. This art of the XIV and XV centuries was the most brilliant, individual and vital of the time, and the great monuments of Castile and Andalucia stand almost as sporadic instances of evanescent genius. With the two succeeding centuries the palm passes from Cataluña to the other kingdoms of Spain, but while the vitality lasted I really think there was no school of art in all Europe that was marked by greater brilliancy and accomplishment. Monuments like the cathedrals of Barcelona, Palma, Gerona and Perpiñan, churches like Santa Maria del Mar, Santa Maria del Pino and Manresa are evidences of the highest architectural genius, while others, by tradition of equal beauty, as, for example, the great Dominican Monastery of Palma, have been entirely destroyed in the atheistic and "republican" riots and revolutions that have peculiarly afflicted this part of Spain.

As Cataluña is the centre of industrial modern-

ism, so is it, of course, the home of the most violent artistic heresies. For the past twenty-five years it has been producing an amorphous thing called "Arte Moderno" which is about the most awful aberration of which the mind of "modern" man has been guilty. Barcelona is rotten with these obscene effusions and they have dripped over into the surrounding country, and even into Palma itself. The crowning monument of this lamentable episode is the vast, unfinished church of the Sagrada Familia in Barcelona on which, by the grace of God, work has long since stopped for lack of funds. Surely the most wrong-headed example of misplaced and ill-conditioned genius (the genius is there without doubt) that modernism has produced. This riotous absurdity had a great flair for a time, but apparently the epidemic has now passed for the work now under construction in Barcelona is of the driest and most academic type.

As I say, it is the art of the XIV and XV centuries that constitutes the lasting glory of Cataluña and it is this art I mean to deal with in the following papers.

(To be Continued)



IN THE MOUNTAINS OF CATALONIA

The PASADENA, CALIFORNIA, STADIUM

BY MYRON HUNT, F. A. I. A.

IN designing a stadium the architect is first interested in the site and its natural restrictions. The Yale Bowl, substantially a great reservoir on a comparatively level plain with some twenty-five feet of cut and an equal amount of fill about the sides, occupies in the neighborhood of thirteen acres without counting approaches. The Harvard or the Princeton scheme, which might be described as a permanent bleacher scheme almost entirely built above the surface of the ground and almost entirely built of steel and masonry, brings in a building problem rather than what might be called a reservoir problem of cut and fill.

Such an amphitheatre as the Colosseum, was of the latter type, while the stadia of the Greeks, like their Greek Theatre, were usually located in a valley or a depression of the surrounding land, in order to utilize the immediate soil as a rest for the seats. In both such an amphitheatre as that at Pompeii, and in such case as the Colosseum, the level arena was totally surrounded by banks of seats. Recent developments in American stadia have combined this idea of the complete development of the level field with the general idea of the Greek Theatre, which was open at one end and generally occupied a shallow valley on a hillside.

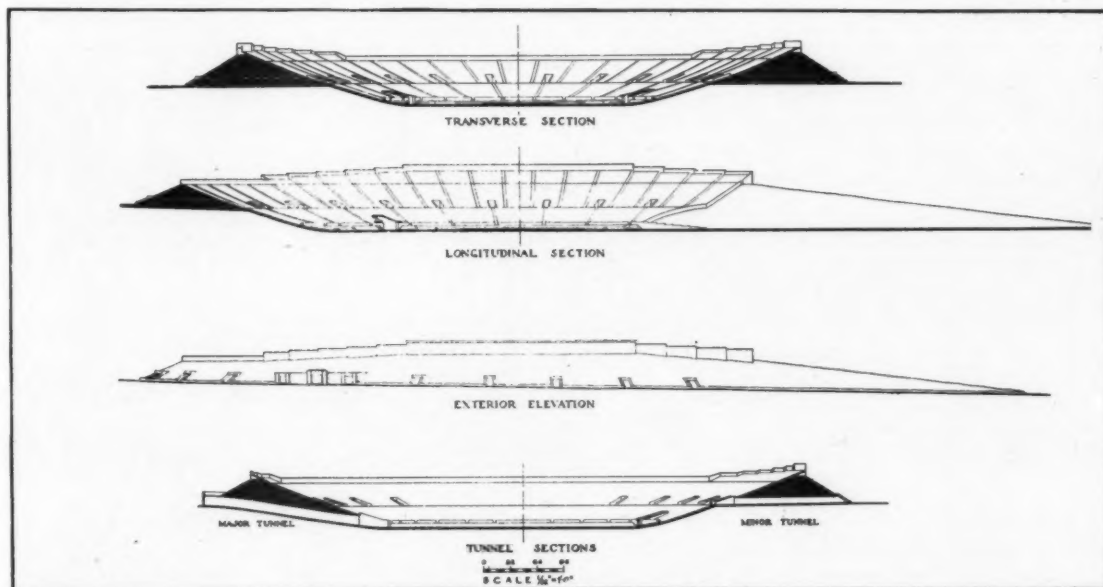
The Harvard Stadium, and that of Princeton, and the stadium which was projected for the University of Ohio, and the stadium finished for

the University of the State of Washington are all open ended. With banks of seats on three sides, the open end is used to make possible a 220 yard running track leading into the field from beyond the banks of seats. This is the natural compromise when it is decided to use the stadium for other than football purposes; because within such a stadium as that at Yale, which closely surrounds the football gridiron, there is not sufficient length for a 220 yard straightaway.

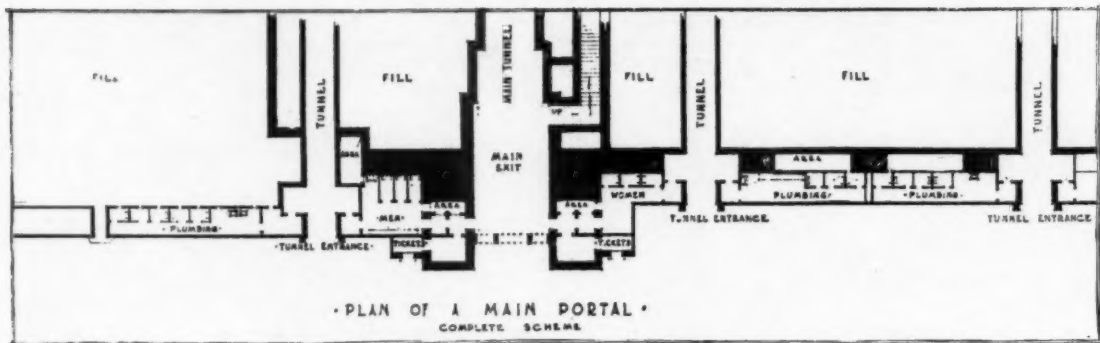
The Los Angeles Stadium adopts a still different compromise. It begins by making a bank of seats totally surrounding a quarter mile track, which means a stadium so large as to be quite wonderful for pageants, but which means end bleacher seats much further away from the center of gravity of football play than is the case in stadia primarily designed for use as football fields, such as the best example—Yale. However, a quarter mile running track does not afford a straight side giving a 220 yard straightaway, and in Los Angeles the starting point of the 220 yard straightaway is in a deep tunnel beneath the bleachers at one end.

The Pasadena Stadium, in charge of the Pasadena Tournament of Roses Association Building Committee, adopted the following assumptions as the best series of assumptions for Pasadena use:

First—the location of the stadium in the two thousand foot broad portion of the Arroyo Seco



SECTIONS, THE PASADENA, CALIFORNIA, STADIUM

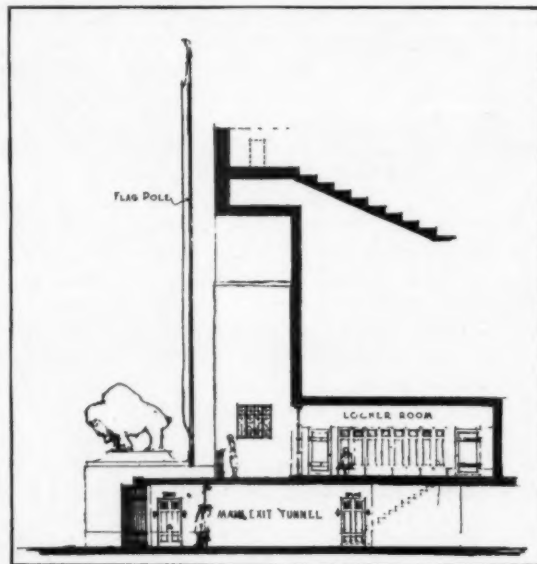


practically in the middle of a great public park, where the possibility of the parking of automobiles was almost unlimited.

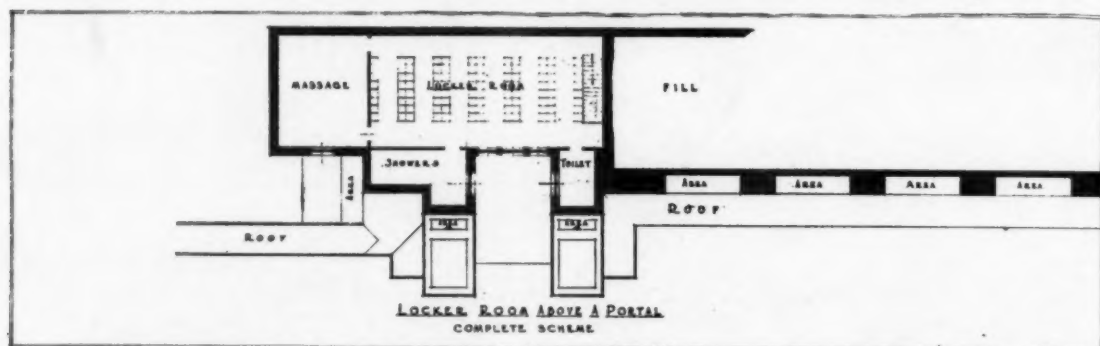
Second—the utilization of the fact that a test hole dug fifty feet in the soil still showed dry gravel, and the adoption of the cut and fill, Yale Bowl, type of construction.

Third—the adoption of the open end type, with the open end looking downstream and incidentally allowing for the entry of the afternoon southwest wind, thus further making possible a 220 yard straight-away without the necessity for beginning the races in a tunnel.

Fourth—instead of using the Harvard or the Princeton straight-sided, “U” shaped, open ended



stadium, the principle of the Yale oval or ellipse was adopted, but instead of using the approximate ellipse formed by the employment of segments of circles, the true ellipse was adopted for reasons of beauty of line, and the ellipse rather than the straight-sided “mule-shoe shape” was adopted because it was found that in a great bank of bleachers so formed that no row of seats contained a straight line, it was possible for practically anybody in any seat in the bleachers to see everyone sitting below him. The enthusiasm of the game, or, as it has been called, the crowd psychology, is augmented thereby, and incidentally, the view to the right and left from the side lines is improved.



THE PASADENA, CALIFORNIA, STADIUM

MYRON HUNT, ARCHITECT



AIRPLANE VIEW, THE PASADENA, CALIFORNIA, STADIUM—MYRON HUNT, ARCHITECT

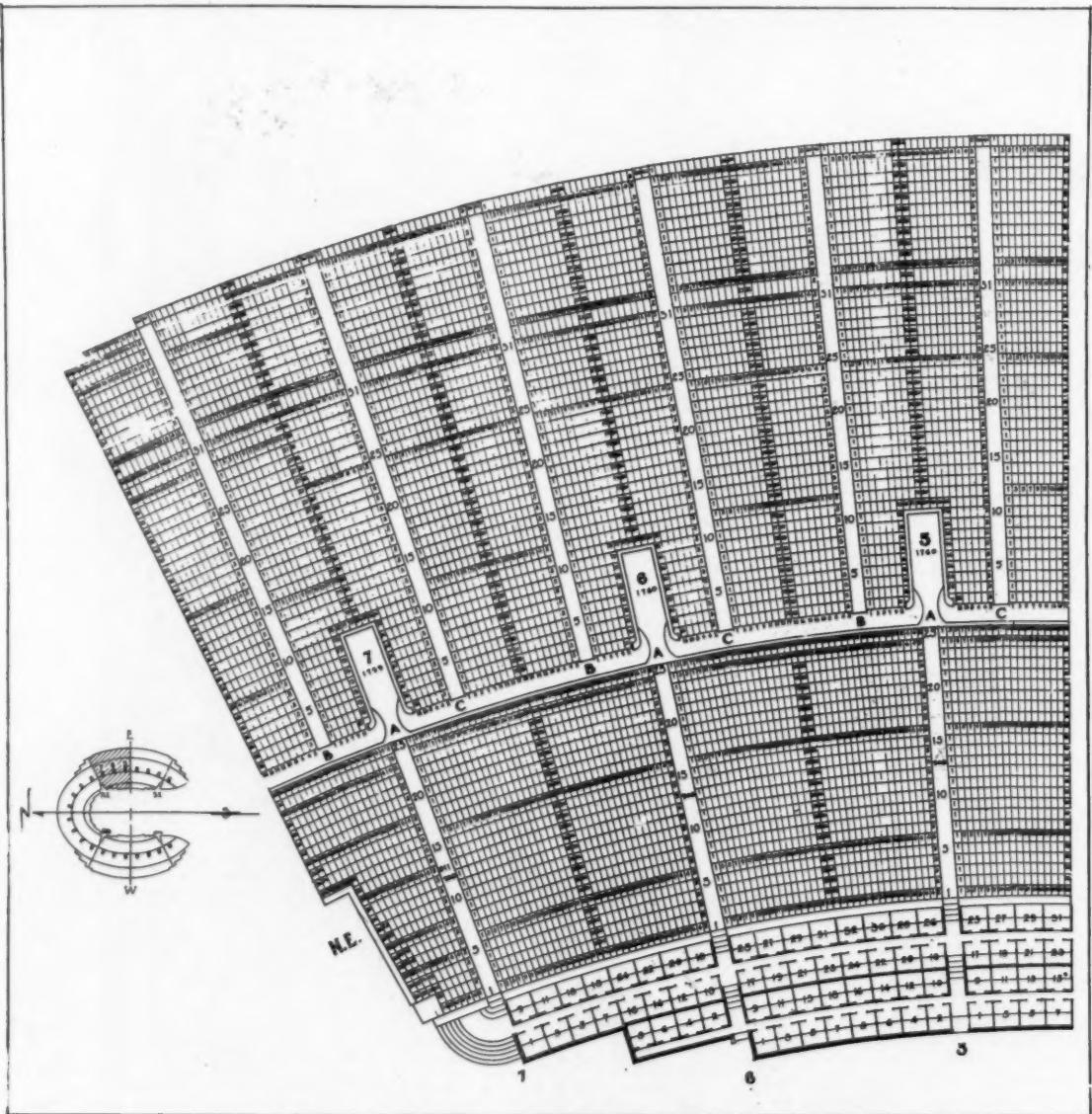
An unusual photograph, taken during the progress of a football game. Note the dust arising from a scrimmage. The stadium is packed with people to its full capacity. Note also the thousands of motor cars parked at right of the bowl.

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Fifth—the Yale Bowl seat rise was adopted. Speaking broadly, this means the raising of the second tier of seats above the first tier by some eight inches, and then the increase of the rise of each tier thereafter by a constant equalling .006 of a foot. It is surprising to note that so small

to the Yale structure quite naturally its name of a Bowl.

These are the principal assumptions made from the results of the experiences of others in adopting a plan for the Pasadena Stadium. They are not unlike the assumptions since made in the already

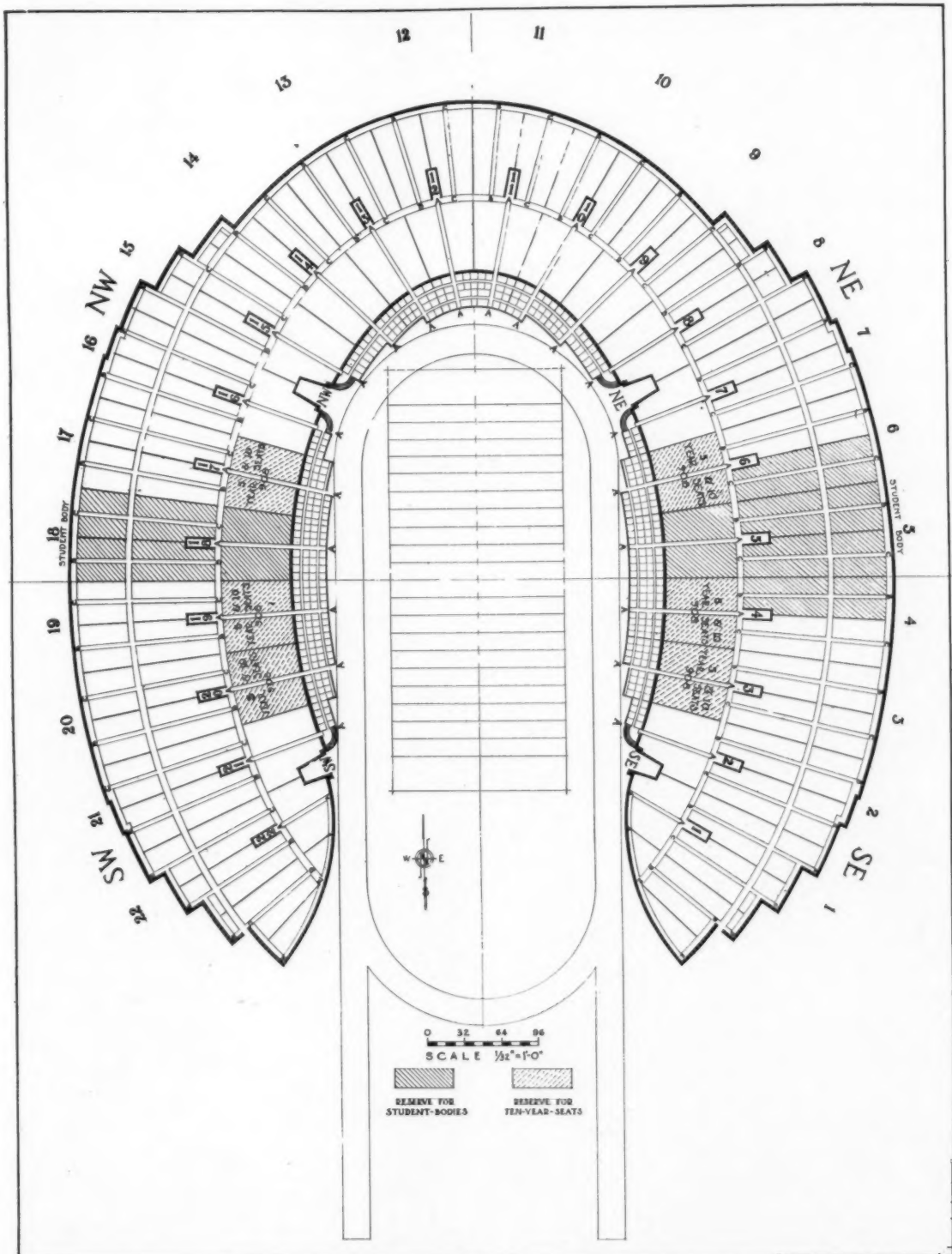


PART-SEAT-PLAN, THE PASADENA, CALIFORNIA, STADIUM

MYRON HUNT, ARCHITECT

an increment of rise results in the last tier riser being over 13" above the one below it. The further effect of this method is to add a beautiful curve to the line of the rising seats, a curve approximating the front of a skate or a sled, starting out slowly and accentuating as it rises and giving

completed Stanford Stadium, except that in order to get a 220 yard straightaway the curves in the two sides of the Stanford Stadium were not kept alike, with the result that it has a slight appearance of being warped. At Stanford the tunnels or level exits and means of entrance from the



COMPLETE PLAN, THE PASADENA, CALIFORNIA, STADIUM

MYRON HUNT, ARCHITECT

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outer plane of the original ground were not included, with the result that it is necessary in order to reach the front lower row of seats to climb to the top of the Stadium from without, and then climb to the bottom on the inside. Obviously, the omission of tunnels was adopted for economy's sake.

In the Pasadena Stadium there were originally to have been twenty-six tunnels—four major tunnels and twenty-two minor tunnels. For reasons of economy, two of the major tunnels were omitted, being the two nearest the open end where they were of least necessity, and two

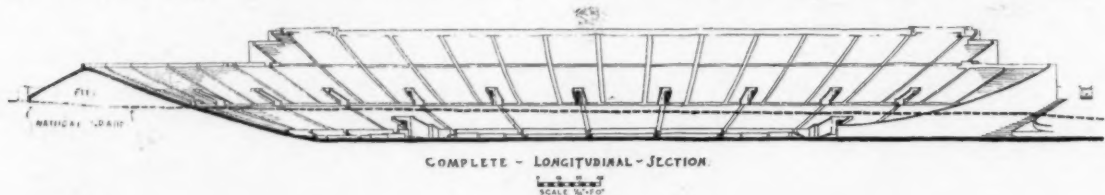
lipse. This was done because it was discovered, after studying airplane photographs of games in some of the great eastern stadia, that the seats in these corners of the ellipse were least popular, in fact, that they were never in use and never sold except when the game was important enough to involve selling out the house. It was therefore decided to utilize this least valuable space for the tunnels which killed a large number of seats down close to the play.

The other item which represents a new departure in the building of stadia is the scheme by which the soil from the bottom of the bowl is



minor tunnels nearest the same end were also omitted. The minor tunnel entrances lead from the automobile stands surrounding the stadium, substantially on the level straight through under the great bank of earth to the middle of the center of gravity of the bleacher seats. The two major tunnels also start from original ground level in the parking space and dip down rather sharply, leading to the playing field level. It is from dressing rooms at the outer ends of these two tunnels that the two competing teams will make their entry.

piled much higher on the sides than on the end. This is for the same reason, namely, because it was found, in examining airplane pictures, that the most popular seats no matter how high they might reach, were on the shady side; the next most popular seats were on the opposite side, while, except for the corner seats, it was the end seats which fill last, although football experts and the men watching the play of competing teams will take the end seats because the delicacy of the play can be better read straight on than from the side.



Incidentally, they will be used as the means of reaching the box seats, which, of course, occupy the first four to six tiers immediately above the field.

Twenty-six hundred chairs can be accommodated in the three banks of box seats, one at the lower end, and one at the east and at the west sides. The floor or risers of these box seats are cast in concrete, and the great elliptical wall immediately back of the boxes and forming the base of the bleachers is also concrete.

Two principal more or less revolutionary ideas have been injected into the plan of the Pasadena Stadium, that have not before been used, the first is the location of the two major tunnels down which the teams enter the field and through which the box seat owners enter the field, not as usual in the middle of the side lines, but at a point 45° from the center of the upper end of the gridiron; in other words, at a point which some one has described as in the two upper corners of the el-

This arrangement will give from twelve to fifteen thousand seats, half on the east and half on the west above the level of the normal bowl, as represented by the north end. The open south end letting in the wind will also let in automobiles, so that a certain amount of sale of automobile space within the enclosure will be provided for, but the great mass of automobiles will be parked in open air garages which radiate from the tunnels in the great plain of the park surrounding the stadium.

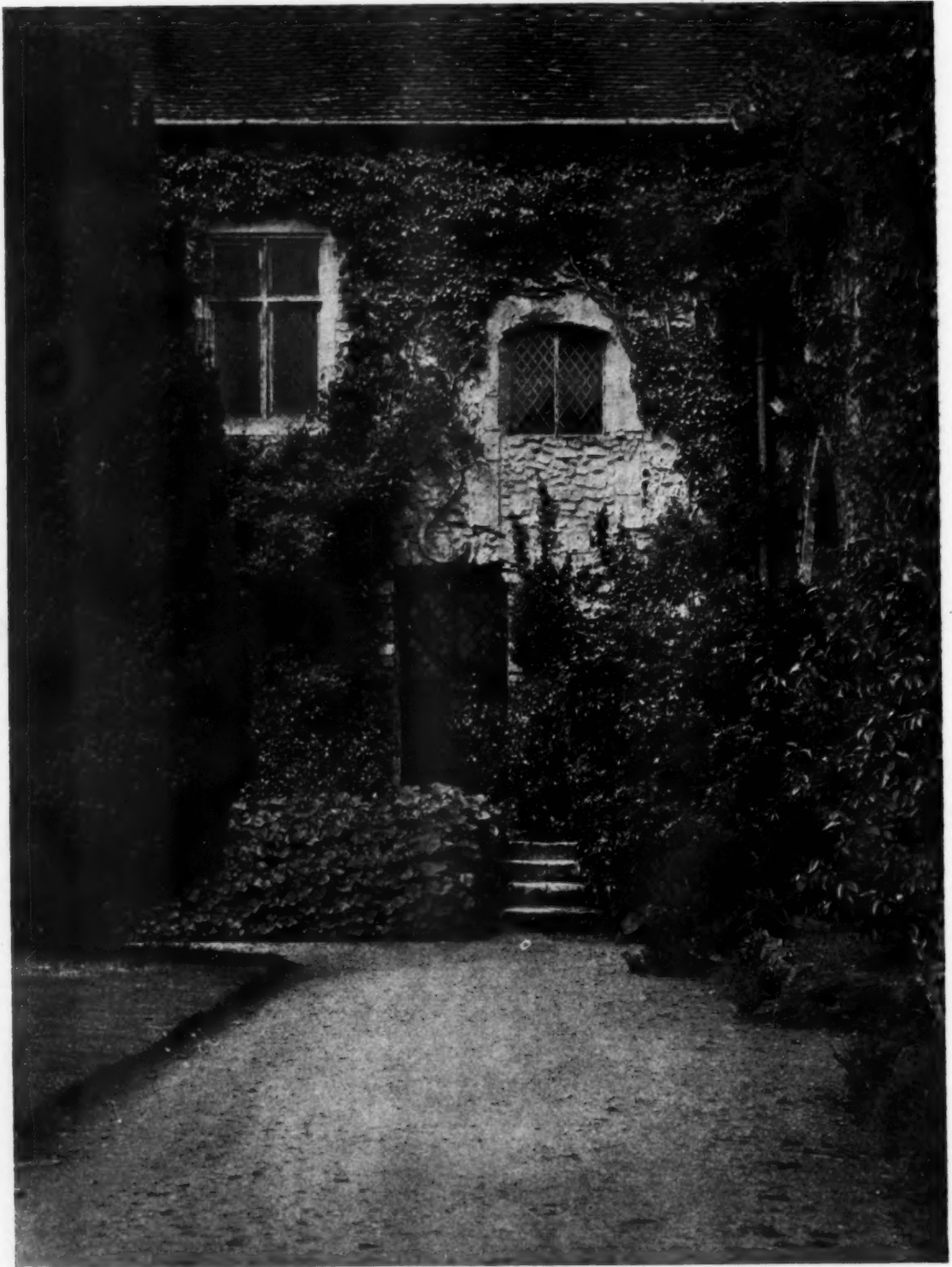
FISKE KIMBALL APPOINTED DIRECTOR OF PENNSYLVANIA MUSEUM

DR. FISKE KIMBALL, formerly director of the Department of Fine Arts of New York University, has accepted the post of director of the Pennsylvania Museum, Memorial Hall, Fairmount Park, Philadelphia, Pa.



"WORKING PHOTOGRAPHS"

ONE OF A SERIES MADE IN ENGLAND BY JOHN RUSSELL POPE, F. A. I. A.



"WORKING PHOTOGRAPHS"

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EDITORIAL COMMENT

WE REPRINT on the Publishers' Page in this issue an editorial clipped from our contemporary, *The Architect and Engineer*, of San Francisco, in which it is set forth that a certain manufacturer whose material was specified in sixty known instances and by different architects, learned on investigation that it had been used in but twenty-one cases.

This is a serious indictment of the profession of architecture. Premising that our contemporary has the facts straight, it shows that in this particular instance 66% of the architects concerned failed to live up to their responsibilities and were in a sense false to their duty to clients by consenting to cancellation or substitution in a case where a particular product was specified.

There appeared in a recent issue of this journal, an article "Or Equal," by F. R. Still, discussing at some length the evils that attend the substitution of other materials for those specified. In the course of that article, Mr. Still wrote:—"The architect is a specialist who is supposed to have all the technical knowledge required to build and equip a building. * * * If a client had the technical knowledge to carry on the project, then he would not call in specialists to perform the operation." Exactly. Therein lies the gist of the matter.

If specifications are prepared in the first instance with the care that they should receive, there will be no change in their provisions nor in the grade of the materials indicated. If they are not so prepared, then the architect is manifestly incompetent.

For a number of years this journal has discussed in its pages the dangers that lurk in loosely written specifications, and the pernicious effect of the "or equal" clause.

In certain lines of trade there was at one time a practice of cancellation. Purchases ostensibly made in good faith were cancelled before delivery or acceptance on delivery refused. This practice led not only to loss on the part of manufacturers, but created a feeling of distrust that injured the square trading man, and left him no redress.

Specifying a certain product is exactly equivalent to its purchase, as it is, or should be considered, evidence that the architect has informed himself as to its merits and demands its use. It is undoubtedly a *bona fide* purchase. Later to eliminate this specific product, or to change to some other maker's goods, is exactly equivalent to the cancellation of an order, and unfavorable reaction of the manufacturer toward the architect is inevitable. He may rightfully feel that the architect has not dealt ethically or squarely by him.

We hear a lot about ethics and the "unwritten code." Can there be any more dangerous lack of ethics,—the proper professional attitude toward clients,—than to permit the substitution of materials or submit to the specification being treated as "a scrap of paper?"

It would seem that the appropriate committee of The American Institute of Architects had a duty to perform in this instance.

* * *

THE COMMITTEE ON RECOGNITION of Craftsmanship, of the New York Building Congress, has recently issued a circular on its plan of operation. The object of the committee is to give recognition to craftsmanship on specific building operations, to stimulate the interest of the industry in true craftsmanship and to convince the public of its value in building construction.

The committee composed of Wm. O. Ludlow, chairman; J. G. Ahlers; R. W. Blodget; J. J. Collins; H. W. Corbett; E. J. Mehren and J. P. H. Perry, aims to recognize by a suitable ceremony and certificate the superior craftsmanship of one of the artisans in each of the major crafts engaged on a given building operation. It is also recommended by the committee that a bronze tablet bearing the names of the workmen so recognized, be erected in the building.

The owner's consent is first obtained by the architect or builder, by showing the owner the advantage, to him personally as well as to the public, of these awards. After the owner agrees to the plan of award for his building, a committee of award for the job is formed. This committee consists of a representative of the owner, the architect, a representative of labor, a representative of the general contractor and of the sub-contractors and a representative of the New York Building Congress who acts as chairman of the committee. This committee, with the co-operation of the general contractor, sub-contractor, foremen and workers, selects the outstanding man in each craft. The selection is based upon the quantity and quality of work performed, the spirit of co-operation and loyalty shown and the pride of the mechanic in his work. Certificates are then prepared by the Building Congress and presented to the craftsmen selected, at a suitable ceremony upon the completion of the building. Where tablets are erected, an unveiling ceremony is held and participated in by the selected craftsmen, members of the Building Congress and representative public men.

In extending the craftsmanship movement, the committee will seek the advice of those craftsmen whose names already appear upon the honor roll.

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The plan of operation outlined above, is presented with the hope that architects, owners and builders in other cities may recognize the economy of good workmanship and further stimulate pride in craftsmanship by a plan of action similar to that adopted by the New York Building Congress.

This proposed recognition of good work is, in a sense, a revival of the "guild" spirit that was so marked in Europe, and which undoubtedly was responsible for the high state of craftsmanship that existed there. The craftsman is the architect's *alter ego*, and if he fails to interpret creditably the wishes of the architect, both the craftsman and architect suffer. It is, therefore, a matter in which the architect is as much, if not more largely interested, than the craftsman.

* * *

THE ANNOUNCEMENT that the old Commodore Vanderbilt mansion on Fifth Avenue, between Fifty-seventh and Fifty-eighth streets, New York City, was to be razed to make way for a fifty story hotel was followed by a statement that, owing to the general interest in its exterior and interior design, it is to be salvaged and erected intact on a plot somewhere on Long Island where, it is prophesied, it will serve as a clubhouse in that exclusive social neighborhood. The salvaging of Stanford White's Madison Square Garden tower has awakened interest in conserving other relics by which our progress in architecture is marked. Similar efforts to conserve the home of former President Madison, although it must be removed from its original site to make way for the march of progress, have met with general approval, as have the efforts to conserve the old home of Alexander Hamilton and the birthplace of Theodore Roosevelt.

The spirit of progress has made itself so manifest in the lives of our people that never a tear has been shed at the passing of some old landmark, the mere mention of which stirs up in the hearts of many of us reminiscences which we love and cherish. The efforts to salvage the tower of Madison Square Garden, therefore, were unique in the lives of the American people and the widespread general approval which met the announcement of the proposition can only be viewed with satisfaction. It is, perhaps, the interior of the old Vanderbilt mansion which has the most interest from an historical point of view. It represents the highest attainment of interior architectural design of fifty years ago. In fact, the interest in the interior scheme of decorations and furnishings of these old homes is more general than it is in the exterior. We look with satisfaction to a more widespread acceptance of this principle by which the various stages in the development of our architecture, both exterior and interior, will be reserved for this and for all generations to follow.

THE AMERICAN INSTITUTE of Architects, in a special circular signed by the Secretary, Edwin H. Brown, makes strong appeal to every Institute member to begin a recruiting service to increase the present membership. It appears from the Secretary's circular that there has not been a normal increase in Institute membership. The circular states, "By actual count there are some 10,500 architects in the United States, on the basis of registration and the best private lists. Of this number there are today 2,900 who are members of the Institute. As a representative society of the profession of architecture, in numbers The American Institute of Architects is still a failure."

This is a frank and truthful statement. Undoubtedly the present comparatively small number of men who constitute the Institute are efficiently functioning, and are doing all they can to serve the best interests of the profession as a whole. In view of the lack of support, as indicated by the failure of a majority to affiliate with the Institute, that organization is giving unselfish and valuable services. The Institute deserves better recognition, and the appeal of Secretary Brown should promote substantial effort on the part of every Institute member to increase the membership. The small proportion of members of the Institute to the total number of architects, as set forth by Mr. Brown, discloses a condition of apathy, an attitude of indifference that it is not pleasant to contemplate.

That the work of the Institute toward furthering the interests of the entire profession,—not just that of its members, as some are disposed to claim,—is seriously handicapped by this minority representation, is shown in a paragraph in Mr. Brown's communication. He writes substantially to the effect that this small membership does not permit the Institute and its chapters to say to the building public, to State legislatures and to the Federal Government that the Institute and its chapters are really representative of the architects of the United States. The Institute is 1,000 members away from the accomplishment of its purpose.

There has been criticism of the Institute that it does not give sufficient attention to the bigger and higher things that should engage it. With its present membership, it is practically impossible for the Board to approach legislative bodies in an authoritative manner. This condition is deplorable and it is up to the profession of architecture to give better support to this earnest and self-sacrificing group of men.

We learn, with regret, from a footnote appended by President Waid to the Secretary's circular appeal, that Mr. Brown is so seriously ill that he has been ordered by his physician to refrain from all work and to take a prolonged period of rest. A quick response to his appeal for an increased membership would at this time be a very fine recognition of valuable service.

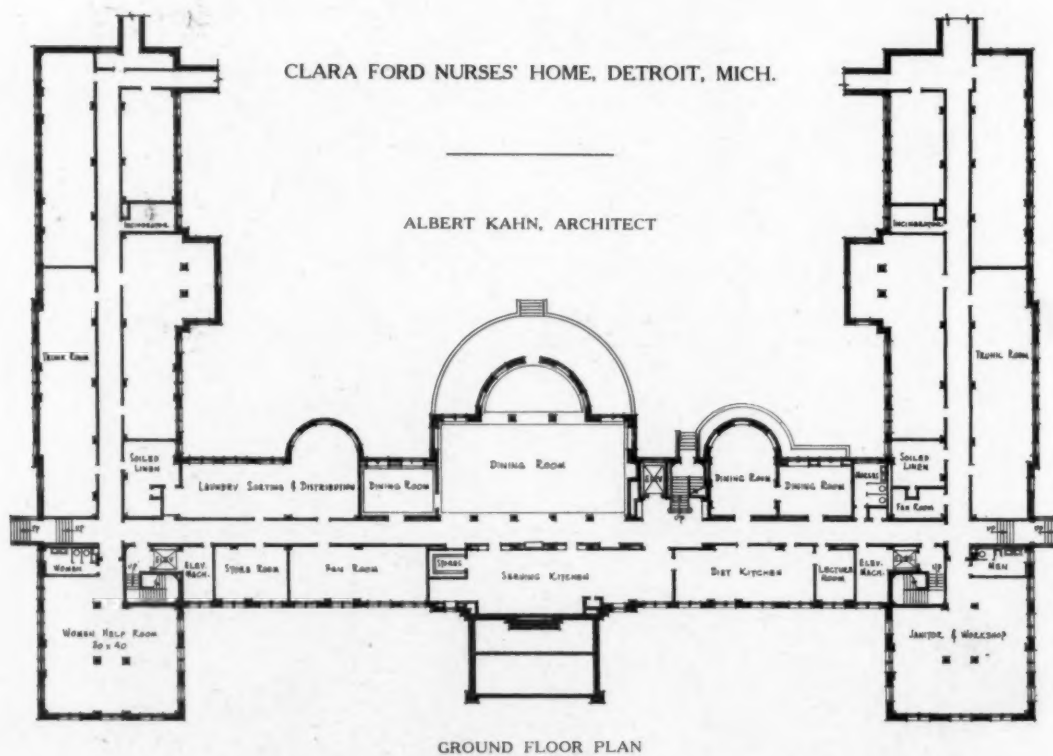
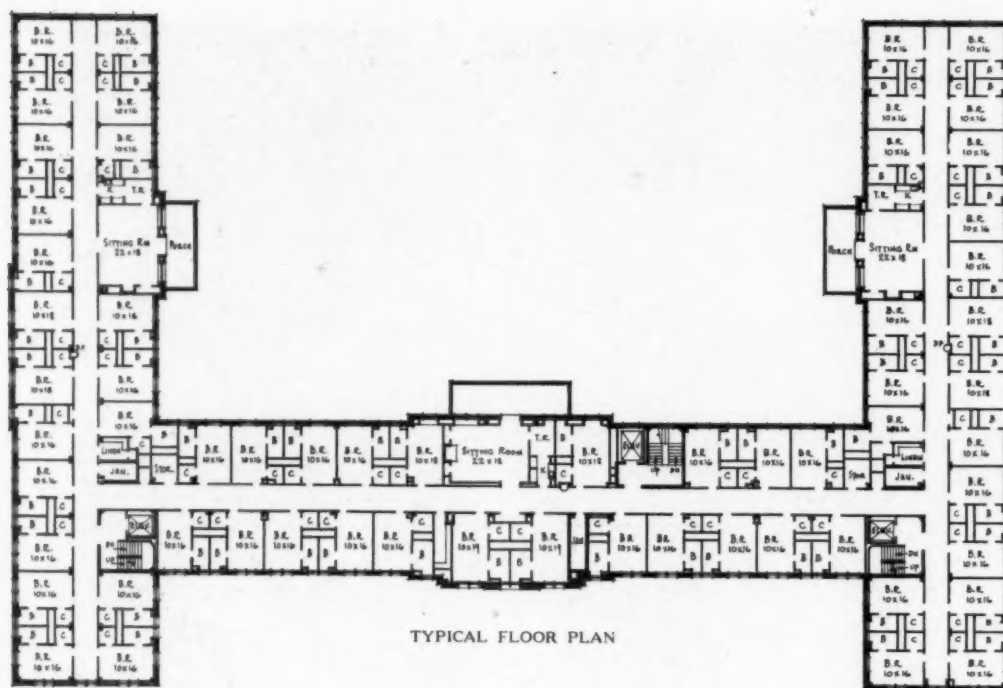


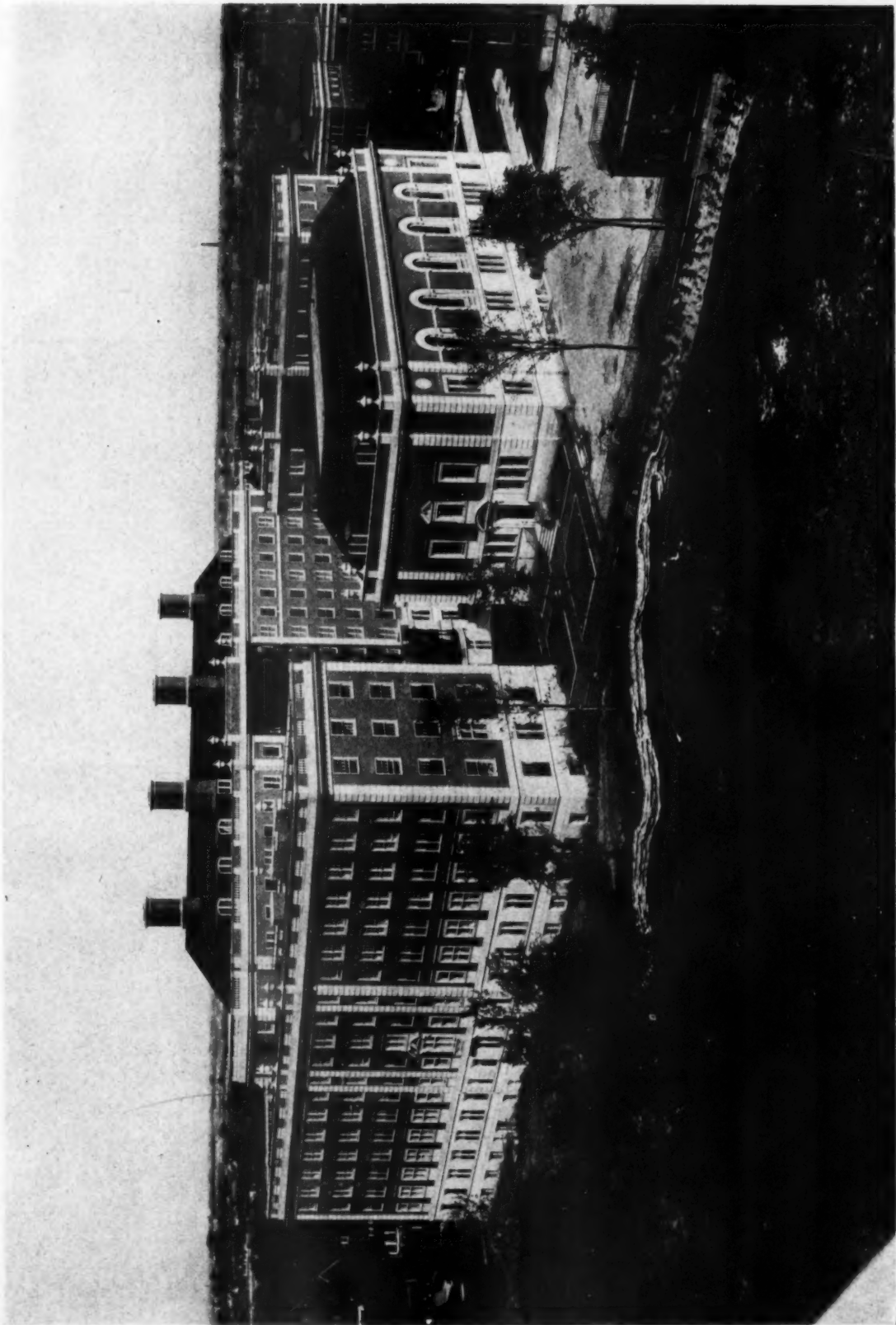
CLARA FORD NURSES' HOME, DETROIT, MICH.

ALBERT KAHN, ARCHITECT

(See plans on back)

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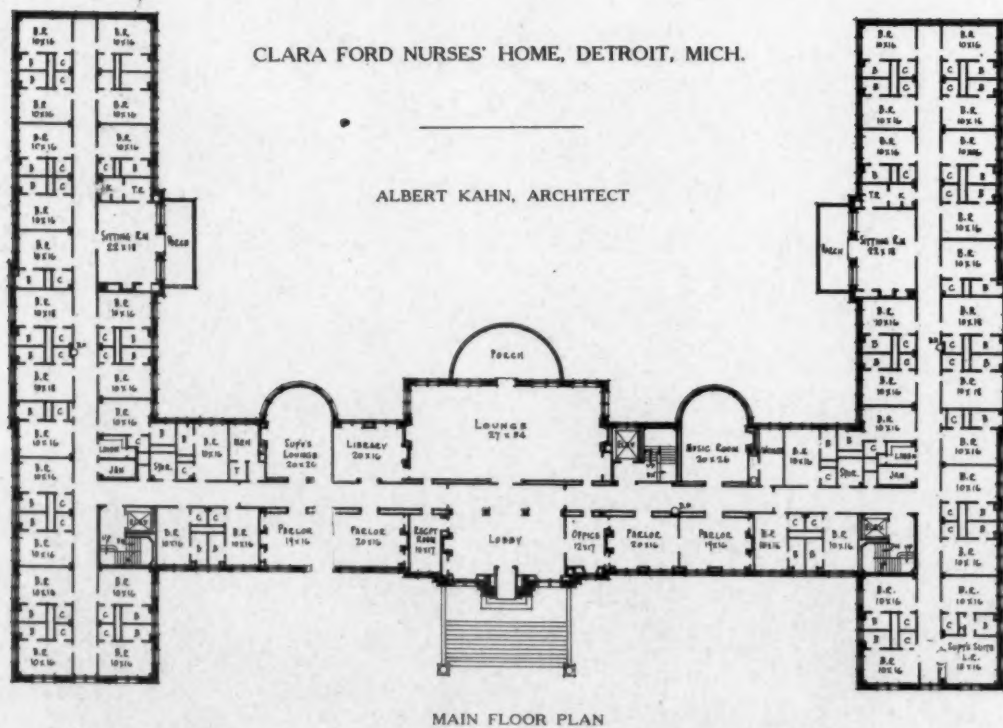
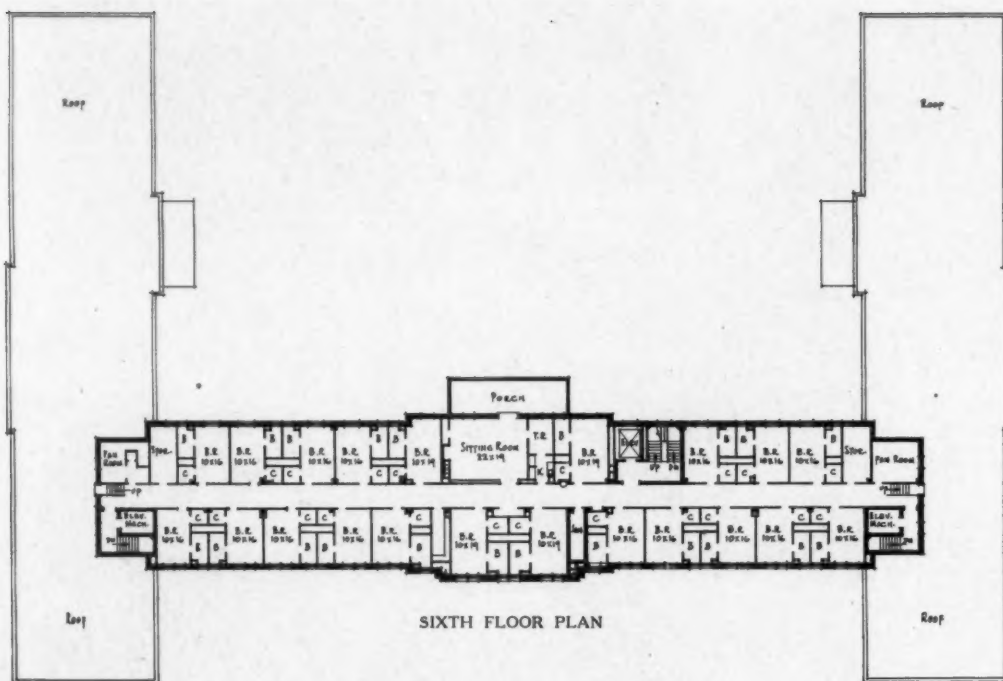


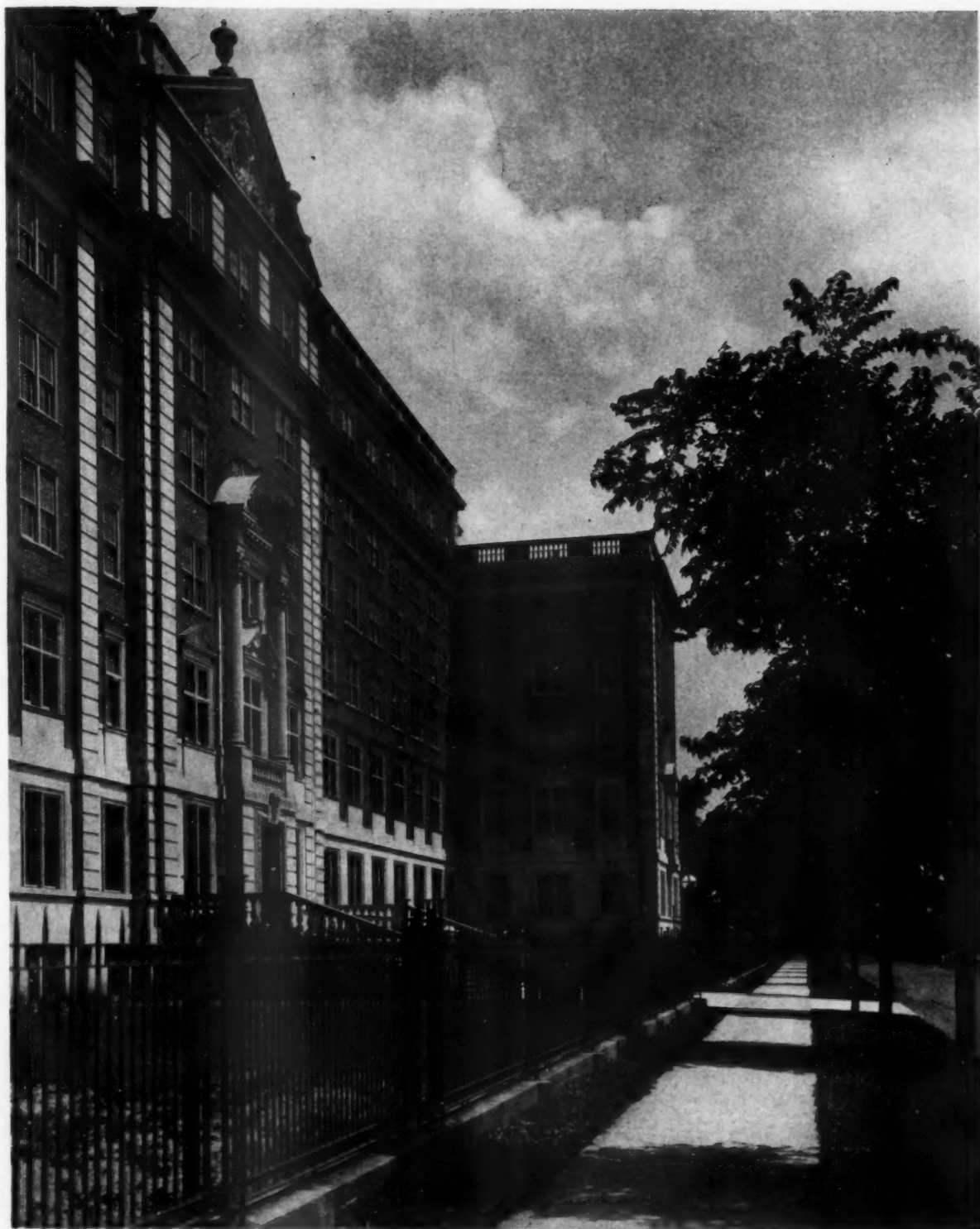
CLARA FORD NURSES' HOME, DETROIT, MICH.

ALBERT KAHN, ARCHITECT

(See plans on back)

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CLARA FORD NURSES' HOME, DETROIT, MICH.

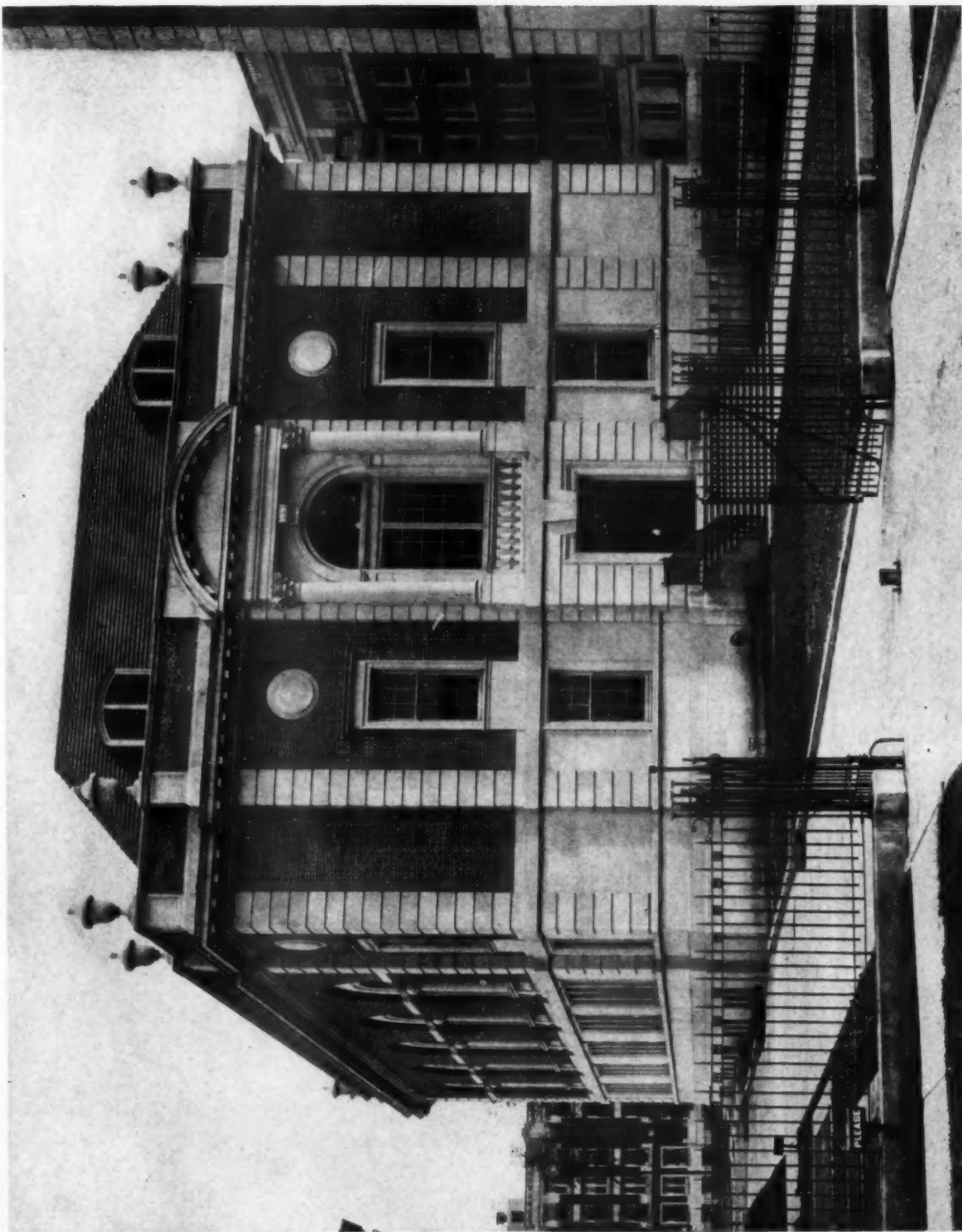
ALBERT KAHN, ARCHITECT

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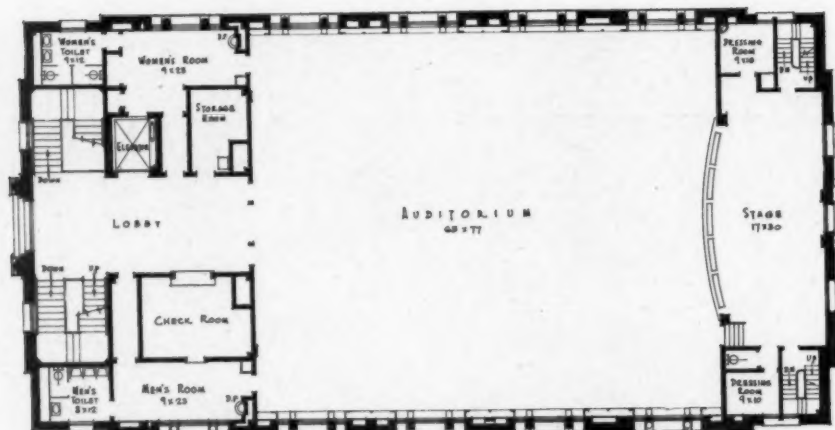
MAIN ENTRANCE
CLARA FORD NURSES' HOME, DETROIT, MICH.
ALBERT KAHN, ARCHITECT

THE AMERICAN ARCHITECT
October 20, 1925. Plate 279

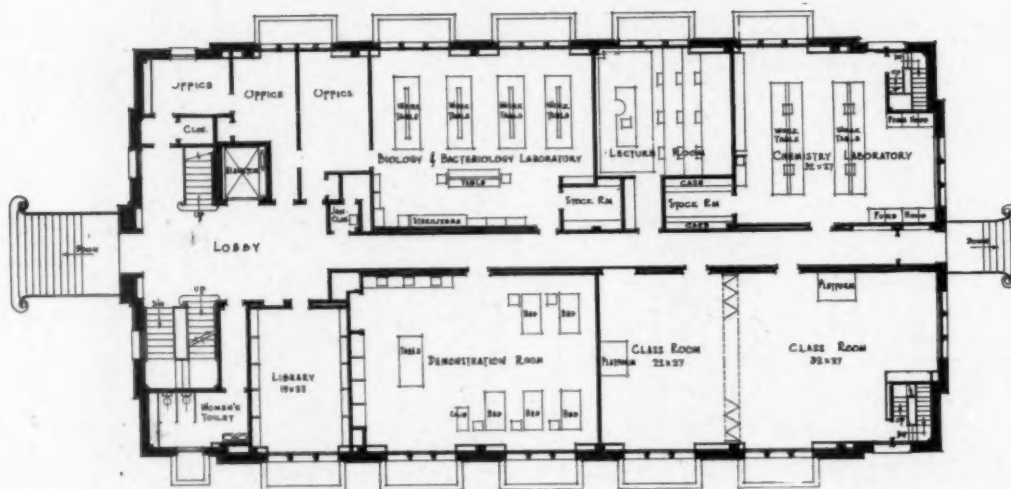


EDUCATIONAL BUILDING
CLARA FORD NURSES' HOME, DETROIT, MICH.
ALBERT KAHN, ARCHITECT
(See plans on back)

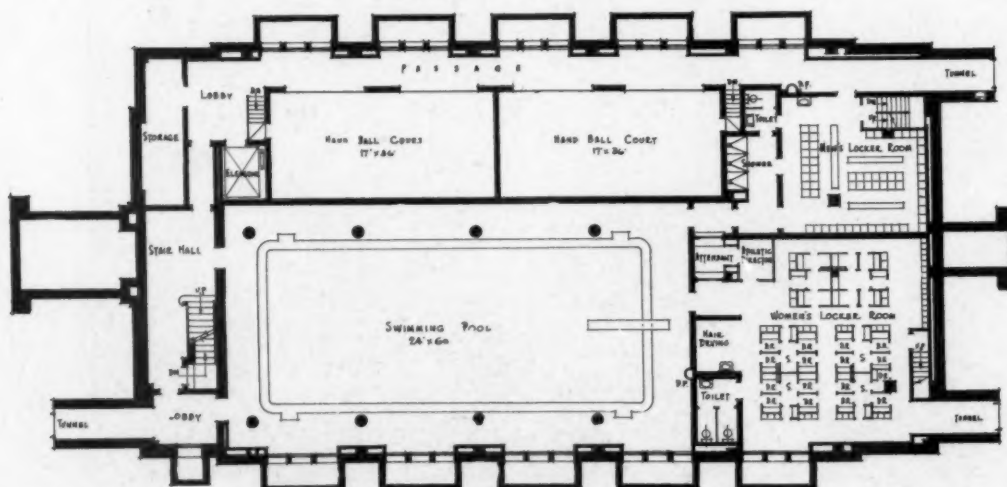
THE AMERICAN ARCHITECT
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SECOND FLOOR PLAN



FIRST FLOOR PLAN



GROUND FLOOR PLAN
EDUCATIONAL BUILDING

CLARA FORD NURSES' HOME, DETROIT, MICH.

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LOBBY

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THE LOUNGE
CLARA FORD NURSES' HOME, DETROIT, MICH.
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TYPICAL BEDROOM



THE "ENGLISH ROOM"

CLARA FORD NURSES' HOME, DETROIT, MICH.

ALBERT KAHN, ARCHITECT

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ZONING and ARCHITECTURE

BY EDWARD T. HARTMAN, Massachusetts State Consultant on Housing and Planning

ZONING in America is assuming the proportions of a phenomenon. It is claimed as the special protector of economic interests, as the protege of many of the professions, as the vivifier of all the virtues. Banks, insurance companies, real estate interests, architects, engineers, city planners, landscape architects, lawyers, doctors, social, civic and health workers all claim it as their special domain, while many common citizens see in what all these special interests leave something that is good for community life, something that will tend toward making of each community and of integrated communities a whole that will function, with something of order, convenience, efficiency, health, art, comfort; in short, a compress for or a composite of all the health, ethical, social and civic virtues.

For this special, universal, purpose zoning may be defined as the regulation by a community of the use of its different areas and of the density of that use. This seems simple, but a careful analysis shows that so simple a thing will affect all the interests mentioned. The secret of its grip on the imagination of the people is its marked contrast with the hitherto unregulated use of all property and the practically complete ignoring of the effects of that unregulated use on every one of the interests mentioned. There has been spasmodic recognition of those effects, even spasmodic effort at regulation in specific directions, but it is the present almost universal recognition of the effects and the synchronous mobilization of these interests that have produced the present situation.

The only element in a community with which zoning interferes and for which it holds no elements of encouragement is the trader-speculator in unimproved or improved real estate. Unsettled conditions, quick turnovers, settling, moving, trading give this group its chance for commis-

sions and profits. The traders have apparently taken a leaf from the book of the teachers' agencies. The latter have long known that if they could pry a teacher out of his place into something better or worse, it matters not which, a vacancy remained to be filled. By skillful management after the first vacancy a constant succession of vacancies, without end, may thus be produced; thus do teachers' agencies thrive, thus do real estate traders thrive, but no one can prove that either is of any benefit to the parties most concerned.

The banks, insurance companies and all investors in real estate securities are interested in loans on real estate, at a fixed rate of interest, with insured safety for the equity of the person who has borrowed. The safer the equity, the safer the loan; and it is but seldom, in present times, that such investors are Shylocks who are looking for a chance to foreclose. Such investors are frankly and avowedly investors; they are not traders in real estate and they have no interest in foreclosures as such. Of course, their interest is frankly economic, but there are those among them who recognize and even prize the social, civic and health values



GOOD WORK BY AN ARCHITECT SPOILED BY AN ENVIRONMENTAL FRAME

which are the actual producers of these sound economic conditions.

The professional men of the real estate group have this same interest and point of view. It is their interest to serve the people with whom they deal and they recognize the community values of stable conditions and the social, civic and health basis of stable values. This is evidenced by the sentiments expressed by the president of the National Association of Real Estate Boards at the International Conference on City Planning in New York last April, by papers read before and distributed by the Association and by leaders among real estate men, the genuine real estate statesmen generally. Their attitude is in marked

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contrast with the characteristic and universal opposition of the trader-speculator type wherever zoning is brought forward.

The engineers, too, with but a special, technical interest in fact, are studying and supporting zoning in a marked way. The papers presented before the American Society of Civil Engineers last Fall and appearing in the Proceedings of the Society for February, 1925, form easily the best single body of literature on the subject of zoning. The paper by Professor Whipple of Harvard, recently deceased, on Zoning and Health has not had and probably will not have an equal. Its clarity, its comprehensiveness, make it at once a masterpiece in science and in exposition. The inclusion of this paper, and of others on various human aspects of the problem, as well as many on technical aspects and on the relation of zoning to the major utilities, is indicative of the reaches of the subject and the breadth of the interest of the engineers.

The city planners and landscape architects, who have done a considerable part of the actual zoning work in this country, have dealt with the subject at their meetings and in their writings for a long period of time. They are perhaps more solidly in



BOSTON'S WOODEN THREE-DECKERS. CONGESTED, FIRE-TRAP AREAS LIKE THIS, OFFER NOTHING TO THE ARCHITECT OR TO THE COMMUNITY

support of zoning than any other group and, because of their extensive contact with it, they have developed the technique of zoning at least as extensively as any other group and have produced as many not universally accepted varieties of technique. One of the present results is that these differences of technique, even among all supporters of zoning, form an outstanding field of interest. This is a condition more helpful than otherwise, for the time when there are no differences will come only when progress has ceased. These differences of opinion, moreover, are common to all the major interests back of zoning.

Social, civic and health workers are in support of zoning for

a number of reasons many of which are more fundamental than those common to other groups. They see direct results, secondary results as well, that are more basic, that have in them the actual foundation of the results most prized by the investing group at any rate. Stable values are good, but social, civic and health workers are primarily interested in what it is that produces stable values. In this way they see, not one thing, but a great number of things, independent but interrelated things which betoken a



THE ABSENCE OF ZONING IN THIS CASE PRODUCED THE CHARACTERISTIC SCRAMBLE, WHICH IT WILL TAKE MANY YEARS TO UNSCRAMBLE AND AT A COST OF MANY WASTED DOLLARS



THE ATTRACTIVE COTTAGES WITH A VACANT LOT BETWEEN, GAVE THE SEMI-RESIDENCE INTERLOPER A CHANCE TO STEAL HIS LIGHT, AND AIR AND VIEW AND TO RUIN THE OTHER PROPERTIES

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better community, a better people. In short, this group is interested in human values, ethical values, social values, moral values, health values, aesthetic values; in short, again, this group is interested in the great producers of stable values, considered from the economic standpoint; and they recognized that the fundamental producers of economic values are the values which primarily appeal to them and that the economic values are themselves but secondary. For human life and humane living are, to this group, the objects and the function of communal life; they put life above any of its by-products.

This, too, is recognized by the statesman-like individuals of all the groups and by the citizen who is concerned that his community shall grow in grace, who is more interested in quality than in quantity, who prefers little, if it is good, to much if it is bad. The whole movement is shot through with this point of view, as the warp is with the woof. The possessors of this point of view are citizens generally, whatever their professional or business connections.

And now we come to architects, reserved till now because we desire to develop a thesis, not new



ONE TO FIVE ROOM APARTMENTS ERECTED BY A BERLIN BUILDING SOCIETY. THIS PICTURE, TAKEN IN A COURT, SHOWS THE LIGHTING AND VENTILATION VALUES AND THE WORK THE ARCHITECT HAD A CHANCE TO DO

but of too limited acceptance, even among architects, as to the position, present and possible, of architecture in relation to zoning. This thesis has been soundly developed by the architects themselves, in the report of the Committee on Community Planning of The American Institute of Architects. This lay statement is offered to bring out some things in which the architects may not understand themselves and some things in which the public surely does not understand the architects. It is necessary to add that what is said is with full consciousness that there are architects and architects.

Mr. J. C. Nichols, in his able paper before the National Association of Real Estate Boards, says, in

effect, that whatever is wrong in the development of a community is the fault of the people, but primarily of the real estate men. This is the only tenable point of view for a real estate man to take. A responsibility is a responsibility and nothing is gained, on the contrary much is lost, by all efforts at appraising shares in responsibility. Responsibilities are shared by all citizens. Any professional or business connection with what is happening increases the responsibility. Any citi-



VILLA DEVELOPMENT IN BROOKLINE, MASS. AN EXAMPLE OF INDIVIDUAL PIECES OF WORK, SHOWING THE NEED OF CORRELATION IN DESIGN



WHERE THE ARCHITECT HAD HIS CHANCE. A RESIDENTIAL SECTION DESIGNED BY ONE MAN. THE RESULTS ARE OBVIOUS

THE AMERICAN ARCHITECT

zen who has more responsibility for a thing than another should and must reserve the right to do everything within his power to see that what is done is done right. For what is wrong is his responsibility.

As has been noted, the engineers, the city planners, the investors, the common citizen, all claim a share in the thing. They should all have a share, but let them not overlook the fact that in proportion to their share, assumed or as a natural obligation, so must their responsibility be measured. Let there be no envy. There is work enough in any community to occupy all the citizens, and to test the qualities of all the professions and occupations. Let no personal credits become major to accomplishments in the minds of the various groups.

Now, where does the architect come in in zoning? Planning is in ways older than zoning. Where has the architect arrived in planning? Some of the best planning has been done by architects, likewise some of the best zoning. In the absence of specially trained city planners and

zoners the technical equipment of the architect fits him as well as, if not better than any other trained man to do these important pieces of work. What are the Gradgrind facts?

The city was planned or it merely happened. It was not zoned. The architect gets a commis-

sion. Without study of the community, without study of the immediate environment, without even considering the elevation or depression of the site, this particular architect, and he is a graduate of an accredited school, goes into his office and with minor consideration of function and no consideration of the frame his building will have, he designs a façade scaled roughly by the bulk the building will occupy. The results may be seen on Fifth Avenue, New York; on Spruce Street, Phila-

delphia; on Commonwealth Avenue, Boston; on any street of any city where means and conditions made it primarily imperative that there should have been at least harmony, so that the new building and its immediate neighbors would not, as they do, screech at each other like a lot of



THE LACK OF ZONING HERE SHOWS HOW THE WORK OF THE ARCHITECT, AND OF OTHERS, IS RENDERED FRUITLESS



A MILL TOWN RESIDENTIAL DEVELOPMENT. COMMUNITY DEVELOPMENT OF THIS KIND GIVES THE ARCHITECT AN OPPORTUNITY ON A SCALE THAT MEANS SOMETHING

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automobiles all trying to pass an unguarded traffic crossing recklessly at the same time.

Where should the architect arrive in planning and zoning? That in the past he has arrived too late is beyond the mark, for there has been no planning or zoning. And now, that these things are developing, the public does not recognize either the responsibilities or the possibilities of the architect. Let these be recognized and the architect will have his place in planning all, from the first street

into it when we have premeditated community planning and the architect is given the chance to create a community. Here function and design in a related sense emerge. Their emergence is essential to the best promise of life in America and this emergence depends, upon the architect it is true, but also upon the people. It is not a question of placing the responsibility, it is a question of orchestrating the allied and common interests.

Under all this the outstanding contribution of



ALSTER BASIN, HAMBURG, ILLUSTRATING THE EFFECT OF HEIGHT ZONING AND THE CORRELATION OF DESIGN

layout to the last detail of the facade; and zoning will without doubt give him his chance.

This is postulated on the assumption that architecture is more than structural engineering, the latter being all that is required when it comes to placing a mercantile building between a factory on the one side and a garage on the other. In such a condition design may as well be forgotten. But it is far otherwise when the area is carefully zoned. Assuming zoning and two lots developed with attractively designed buildings and a vacant lot between to be developed, and the architect comes into an opportunity. He will come farther

the architect will fall upon his function as artist, creative, community artist. He cannot be an artist, much less a community artist, till planning and zoning prepare the way, not until he has genuine equipment and conscious purpose, not until the people recognize the peculiarities of his functions and give him a chance.

Again, as always, there are mutual responsibilities and common opportunities, but what it is here desired to emphasize is that till the people, including the architects as people, provide definite use zoning, all efforts at architecture in its broad sense must be piecemeal and largely abortive.

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Real opportunities at architecture will challenge the attention and catch the imagination of the leaders in architecture. Their responsibilities and opportunities will be not greater than those of others, but they will be distinctive and they will call for a breadth of training and of point of view that will at once advance architecture, in the minds of the people, to its proper place.

This may sound like a plea for architecture. It is a plea for zoning, sound zoning, based on sound planning, that our communities may have a chance at proper development. It is also a recognition of the function of the architect in the general scheme. Neither will ever exist as it should without the other, both have much to contribute to the real purpose of community life; which is not to grow great (in numbers and bulk), to increase land values, to increase trade, to boom a bigger and busier rottenness; but to make human life better; to advance the evolution of our lives into better forms; to make humanity, long rejected by the builders, to become the object of our endeavors.

When there is general acceptance of this object there will continue to be acknowledgment of responsibilities and possibilities but there will be no competitive claims for credits accompanied, as is now common, even among churches and social agencies, by a minimum of attention to results. It will, too, broaden our conceptions of professional and general ethics. What is unethical as between members of a profession is unethical as between the professions, and between the professions and the people, as well as between the corporations and the people. So that the architects, to return to them, have a chance to aid in the establishment of the kingdom of heaven upon earth. Among the tools to this general end let not the architects or the people overlook the values of planning and zoning.

That the architect should manifest himself more vigorously, activate his profession, goes without saying. Neither the architects nor any other profession will gain a proper place in the building of growing and evolving America by loudly asserting the place they should have. They will

have the place they hold and hold is secured only by the production of results. Claims without works are as sounding brass and tinkling cymbals. The committee of The American Institute of Architects was right when it said that the architects had surrendered the place of leadership. They will probably never gain the place of leadership, which has never been held by any one profession, but all that we hope to accomplish demands that the architect come into a place of leadership among the leaders. His function as creative artist, in the field upon which the whole of the community art depends more than upon any other, makes it imperative that he come in and that the people insist upon his coming in.

In the co-ordinated, planned and zoned communities, and regions of integrated communities, which will make up the states and the fully functioning America of the future, there will come a field for architecture on a scale which alone will make genuine communities and genuine architecture possible. To design the entrance to a house is not architecture, nor yet to design the facade of a house. These are essential details, just as there are scores of details as to function, convenience, comfort and appearance. The architecture that the situation demands is the architecture of whole communities, or large segments of communities, each developed with respect to the whole and each whole properly worked into the greater community or regional whole.

This calls for regional planning on a large scale, for the correlation, through zoning, of the industrial center, the mart of commerce, the urban and suburban residential areas, the market garden, the grazing lands, the forests, the lakes, ponds, streams and mountains of the hinterland. The recognition of a place and a desire for a place in all this by many interests have been indicated. The public at large is beginning to see the place of the architect. This is intended not so much as a plea either to the people or the architects, rather as a challenge to the architects. Burnham met such challenges and made good. What of the profession as a whole; what of the future?



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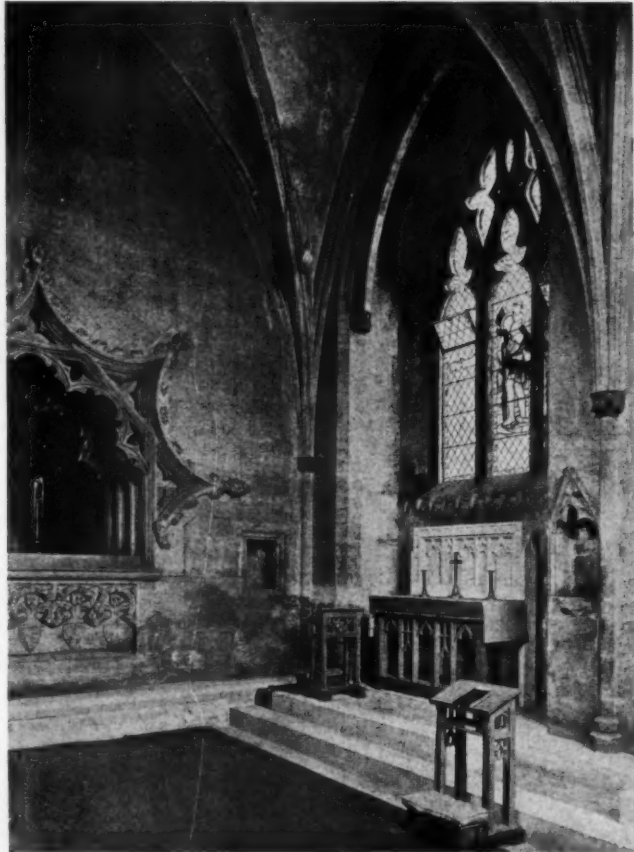
BELOW: HOUSING SCHEME AT GUN HILL
ARLEY FOR THE ARLEY COLLIERY
COMPANY, LTD.

DOUGLAS G. TANNER & ARTHUR L. HORS-
BURGH, ARCHITECTS

AT RIGHT: THE "BERKELEY" CHAPEL, BRIS-
TOL CATHEDRAL RENOVATION

ROLAND W. PAUL, ARCHITECT

(From The Builder)



HOUSING SCHEME AT GUN HILL ARLEY
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ENTRANCE, FOX STEEP, WARGRAVE
OLIVER HILL, ARCHITECT
(From The Architectural Review)



A SIDE BLOCK, HORTENSIA HOUSE, CHELSEA
PERCY TUBBS, SON, AND DUNCAN, ARCHITECTS
(From The Architects' Journal)



(From The Builder)

DINING SALOON, ORIENT LINER "OTRANTO"—A. N. PRENTICE, F. R. I. B. A., ARCHITECT

GLEANINGS FROM THE FOREIGN ARCHITECTURAL PRESS

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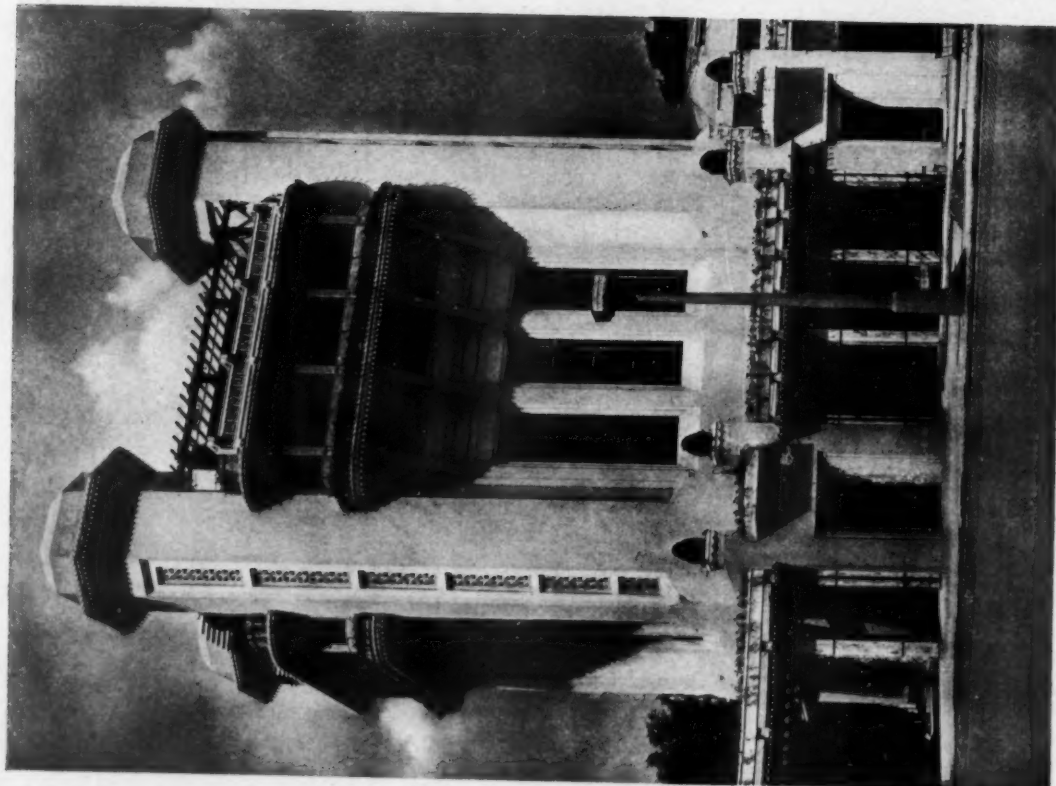


(From The Architectural Review)

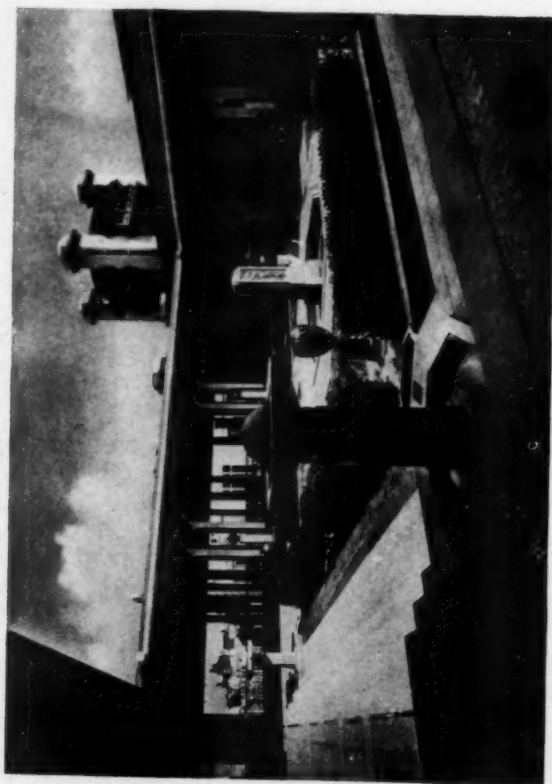
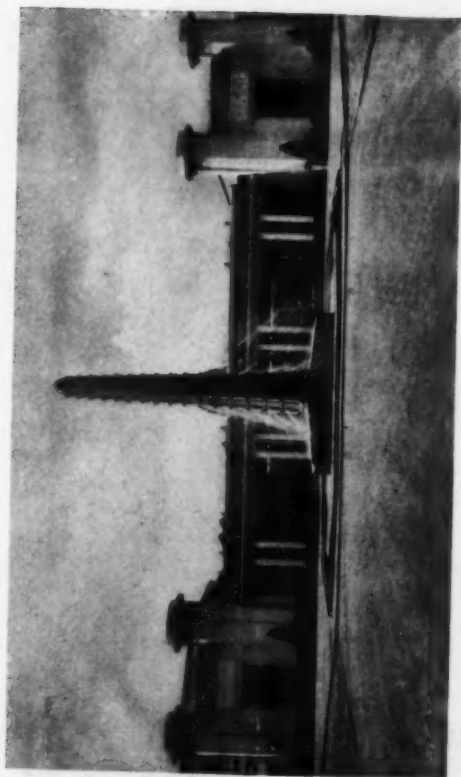
NEW MAIN BUILDING, BRISTOL UNIVERSITY—OATLEY & LAWRENCE, ARCHITECTS

GLEANINGS FROM THE FOREIGN ARCHITECTURAL PRESS

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(From L'Architecte)



INTERNATIONAL EXPOSITION OF MODERN DECORATIVE AND INDUSTRIAL ARTS, PARIS
GLEANINGS FROM THE FOREIGN ARCHITECTURAL PRESS

INTERIOR ARCHITECTURE

Modern Fresco Decoration

FRESCO is popularly misconstrued as meaning any sort of painted wall decoration.

Fresco painting, as opposed to that executed through the medium of oil paint on canvas, is applied directly to the walls of a building, and, on account of that being its distinctive feature, it is essentially a technique adapted to mural painting. This is probably the origin of the idea that all painted wall decorations are frescoes. True fresco painting (from the Italian word *fresco*, meaning fresh or wet) is the method, then, of painting directly on mortar while it is still moist, whereby the pigment, which is dissolved in lime-saturated water, is absorbed by the wet surface. As the mortar gives up its moisture, the lime becomes chemically affected by the carbon dioxide of the air, and a natural thin crust of carbonate of lime is thus formed over the painting, protecting

and hermetically sealing all the colors. Conversely, if the pigment be applied after the mortar is perfectly dry, the operation is called *secco*, from the Italian word meaning dry. In this latter process, the surface which is to be decorated is carefully rubbed and washed with lime water preparatory to applying the pigment, so that the mortar still yields a feeble protecting film of carbonate of lime, similarly as in fresco painting, but too feeble to allow of the same satisfactory results, principally because the colors

actually a structural decoration, and therein lies one of its chief assets.

The permanency of the colors and their harmonious blending each with the other (for the pigments are in almost every case natural earth



THE WROUGHT IRON REFLECTORS HUNG ON THE WALLS ON EACH SIDE OF THE ALTAR

do not penetrate the mortar to the same extent as in the fresco method. By its very method of execution, fresco painting is so closely affiliated with the structure of a building, that it becomes



A HEAD IN FRESCO WHICH SHOWS THE CHARACTERISTIC TEXTURE OF THIS METHOD OF PAINTING

colors) are, perhaps, the two most vital characteristics of fresco painting, although, as a decorative element, the fact that this technique produces no sheen is greatly in its favor. Surfaces thus treated can be seen from any angle, and from no position do they become indistinct because of the reflection of light. "One of the particular charms of fresco painting," writes Harold W. Rambusch, promoter of fresco painting, in a recent issue of the *Brooklyn Museum Quarterly*, "lies in the fact that it preserves the texture of the mortar. The lime and sand have a beauty in themselves, for each grain of the latter seems to catch and reflect the light in its own way, and this, together with the crude trowel marks of the mason as they roll on and on, seems to blend and produce that wonderful texture typical of the mortar covered vaults and walls of so many of the old churches." But, in spite of the fact that fresco painting retains

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permanently its brilliancy and clearness of color, and that in texture these line decorations cannot be rivaled by anything executed in oils on canvas for mural decoration, this method is not extensively used now. This is partly due to the sweating of walls in this climate, which alone makes fresco painting practically impossible, although that condition can be and often is overcome by erecting a skeleton wall on which to apply the paint, which has no exterior connection. That, of course, increases the expense materially. Consequently, the method of painting on canvas in oil, and applying the painted canvas to the wall is more generally preferred. The disadvantage of this process, in comparison with painting directly on the wall, lies in the fact that the decoration cannot become older than the material on which it is painted, making it impossible to leave it attached to a wall surface for any length of time. The fading of the colors, too, is also a disturbing factor of oil painting, for even with the best of care some

colors will fade more than others, and the original harmony of color is thus ruined. The sheen produced by the smooth surface of the canvas often prevents the entire work from being seen to advantage at one time, except from certain favorable positions, and this, too, is a serious handicap to decorative work of this description.

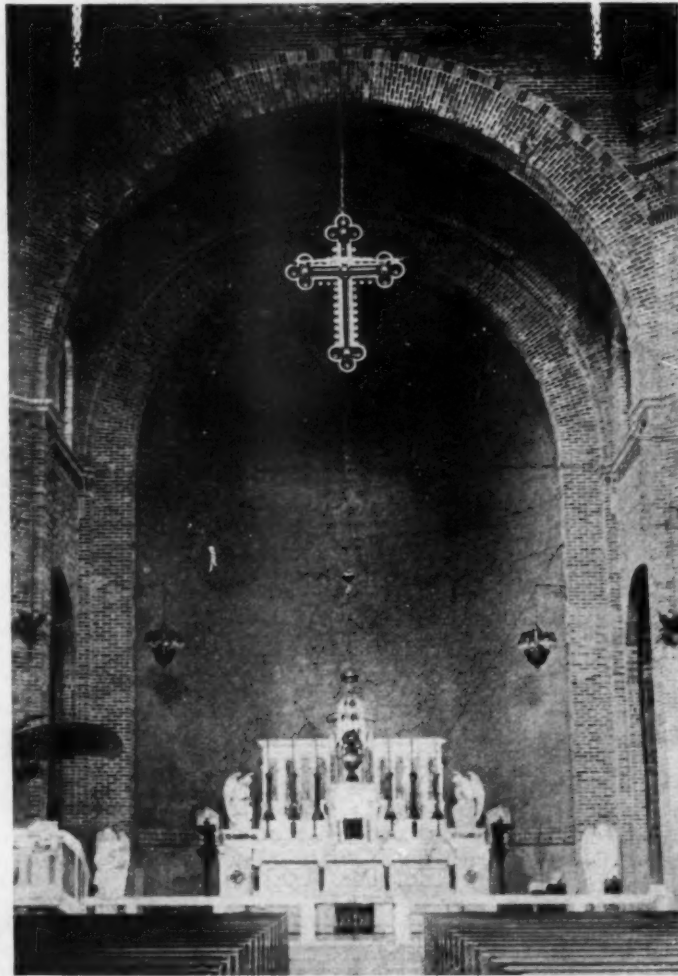
In the metropolitan district, we have been

called cannibalistic, as far as our architecture is concerned. "We build up that we might tear down," is the way some one recently put it. What interest, then, can there be in permanency? Oil paintings have an added value to such people in that they may be salvaged from the wreckage and applied intact to some other building

where they will continue to serve as decorative features. The lover of fresco painting has no reply to such an argument. But, fortunately, what is said of New York City, cannot be said of the whole country. Well designed and beautifully decorated buildings are being more and more appreciated everywhere, and the more permanent their beauty, the more chance they have of surviving. The American churches, especially, come under this category, and thus fresco painting now, as in mediæval times when it was originated, lends itself well to church decoration, where its permanency and beauty are considered assets, while the temporary and other unfavorable qualities of oil

on canvas are looked upon as detrimental to its use.

It is to the fresco decoration on the dome and walls of the sanctuary of St. Patrick's Roman Catholic Church at Bayshore, Long Island, N. Y., that attention is herewith invited, considering first the illustration which shows a view of the interior looking toward the altar before the painted decoration was applied. The church was



LOOKING TOWARD THE ALTAR BEFORE THE FRESCO DECORATION WAS APPLIED TO THE WALLS AND DOME

ST. PATRICK'S ROMAN CATHOLIC CHURCH, BAYSHORE, L. I., N. Y.

GUSTAVE E. STEINBACK, ARCHITECT

THE AMERICAN ARCHITECT

designed by Gustave E. Steinback about ten years ago, and the brick walls were left unfinished at the time, awaiting funds to apply a decorative scheme worthy of the architectural design of the church. A scheme of painted decoration was worked out by the Rambusch Decorating Company in conjunction with the architect, to which the Rector, Rev. Edward J. Donovan gave his approval, and the treatment of the walls and dome of the sanctuary, embodied in that scheme, has just been completed. An actual photograph in color is reproduced herewith. A comparison between it and the photograph already referred to, showing the church in the unfinished state, proves the worth of the fresco decoration. The design of the ornamentation of the dome was inspired by the original mosaic decoration of the dome in St. Clemente at Rome. It is symbolical throughout, as so much of the decoration of churches at the time of its inception was, and, as such, illustrates well the imaginative

power of the mediaeval mind. In it, for example, are seen the four streams of the four Evangelists, with the drinking cups symbolizing the human thirst for God; the peacocks symbolizing immortality; the thirteen lambs symbolizing Christ with the twelve Apostles going out from Jerusalem and Bethlehem; while the small figures, the shepherds, nobility and servants are a classical way of ex-

pressing the many sides of life. And yet the decorative feature has not been neglected. In fact, it was this ability to create decorative ornamentation from symbolical motives that makes the work of the early mural painters, especially that applied to walls of churches, so interesting. The panels on the

walls below the dome represent the four seasons of the church year, strictly an original conception, while the central panel is dedicated to the patron saint, as a request from the hierarchy at Rome calls for a statue or painting of the patron saint of the church to be put on or above the main wall.

In adapting the general character of this design of the fourth century to the interior of a twentieth century church, the decorators have retained its symbolical interest and made it the feature of the decorative scheme of the complete interior. A design that was originally executed in mosaic has here been interpreted in paint, and the vast difference in the manner of expression has in itself been

accountable for marked discrepancies between the two designs, thereby not only making the adaptation more appropriate, but giving it more individuality than an out and out reproduction would possess. The decoration is especially interesting in color, the tones being soft, as is always so characteristic of real fresco painting, while the color scheme has been worked out to be in complete har-



SHOWING THE FRESCO DECORATION AS APPLIED TO THE DOME AND WALLS OF THE SANCTUARY

ST. PATRICK'S ROMAN CATHOLIC CHURCH, BAYSHORE, L. I., N. Y.

RAMBUSCH DECORATING COMPANY, DECORATORS

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mony with, as well as appropriate to, the architectural and decorative elements with which it is associated, and no attempt has been made to reproduce the colors in which the original mosaic decoration in St. Clemente was executed.

Other features of the decorative scheme which the decorators included in their plans and which have already been installed in the church are a fresco painted ceiling in the vestibule, two semi-circular chapels or shrines, and a niche, all painted in fresco decoration, in the church proper, two hand wrought iron reflectors, attached to the wall on either side of the altar, and a painted wood rood hanging from the center of the dome at the crossing of the transept and nave, the latter features visible in one of the photographs reproduced. The wrought iron reflectors, referred to above and illustrated in detail on another page, have been successfully worked out by the decorators to throw light on the altar without retaining the glare that accompanies

unprotected lighting units. They have been so constructed that the reflected light can be tinted in certain desirable colors, thereby adding much to

the impressiveness of the various services which are conducted in the church. The face of these reflectors has been designed to be appropriate to the important and prominent place they occupy in the decorative scheme of the interior, and the workmanship is entirely in keeping with their dignified and sacred surroundings. They are hand wrought throughout. The extremities of the huge rood which hangs from the center of the dome are decorated with the symbols of the four Evangelists. Symbolism is in this, as in so much ecclesiastical work, the keynote of the design throughout, and therein lies one of the main reasons why church decoration in this country today continues to be

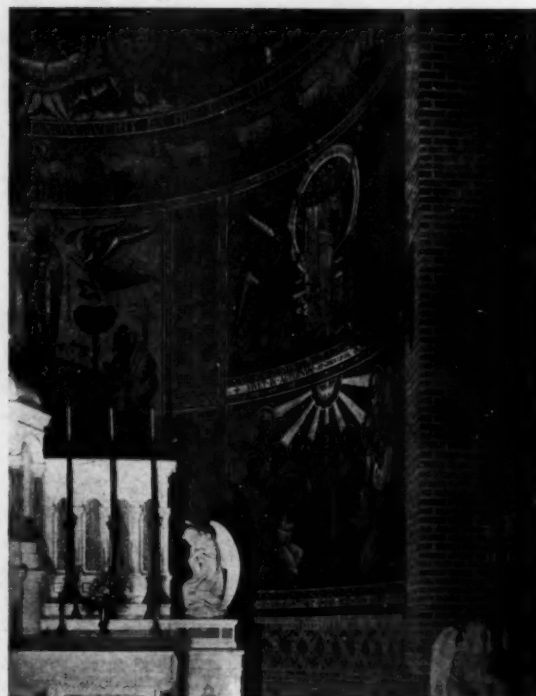
so successful. Acknowledgment is made to Rambusch Decorating Company for their courtesy in supplying the illustrative material.



A SECTION IN DETAIL OF THE ORNAMENT ON THE DOME



LOOKING ACROSS THE ALTAR SHOWING DETAILS OF SURROUNDING ARCHITECTURE



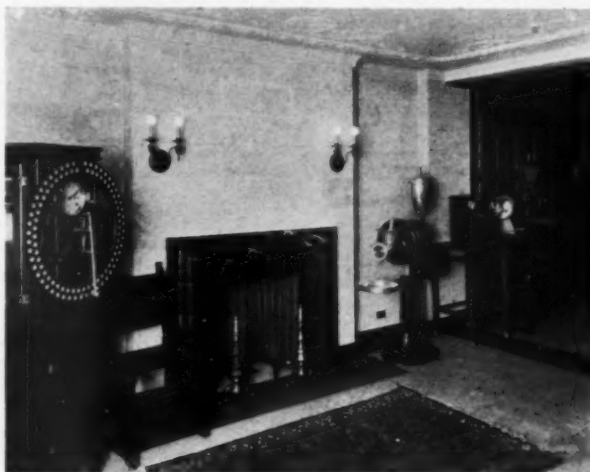
SHOWING A CLOSER VIEW OF THE ORNAMENT ON THE WALLS ENCIRCLING THE ALTAR

GOOD ARCHITECTURE *a* COMMERCIAL ASSET

ON several occasions during the last few months, the articles of this department have emphasized the value of good architecture as a commercial asset. While the quality of the product displayed and on sale has in no way been diminished — for, after all, it is the quality of the product itself which gives to a concern a standing and an unquestioned reputation — it has been conclusively proved that the interest which the architecture and the decorations arouse, in other words, the attractive quality of the setting or the surroundings in

which the products are exhibited, has much to do with luring the prospective customer into the store or salesroom where the sale is to be made. Conditions have changed since those days seventy-five years ago when Emerson wrote that “if a man write a book, preach a sermon, or make a better mousetrap than his neighbor, though he build his house in the wilderness, the world will make a beaten track to his door.”

The International Business Machines Corporation has recently opened new salesrooms and offices at 310 Fifth Avenue, New York City, which serve well to exemplify



THE WALLS OF THE RECEPTION ROOM ARE OF ARTICE STONE, AND THE PARGEWORK CEILING FEATURES IN ITS DESIGN CERTAIN OF THE MACHINES WHICH THE CONCERN HANDLES



THE SCALE DIVISION DEMONSTRATION ROOM, IN WHICH PURELY COMMERCIAL APPARATUS IS DISPLAYED. THE ARCHITECTURAL SETTING, INCLUDING THE FURNITURE, CASEMENT WINDOWS, RUGS, ETC., CREATES A BACKGROUND IN KEEPING WITH THE HIGH QUALITY OF THE MACHINES EXHIBITED

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this point. The architect, Charles H. Higgins, has created a setting of unusual architectural interest and refinement and it might even seem, when first suggested, that such purely commercial products as the company handles and has on display — scales, time-recording devices and tabulating machines — would be even out of place in such surroundings. That is, however, not at all the case. The interest which the architecture and decorations incite serves to make up for the utter lack of

decorative interest in the several types of machines. But it in no way detracts from the products displayed, for they, in no sense of the word,

compete with one another. Moreover, the high standard of design and workmanship which the architecture and decorations portray, gives to the concern, and even to the products which they handle, a class, representative of high quality, such as purely commercial products like these are seldom, if ever, in practice associated with.



IN THE TABULATING MACHINE DEMONSTRATION ROOM THE WALLS ARE PANELLED IN OAK. CASEMENT WINDOWS ADD TO THE DECORATIVE EFFECT, AND INTERESTING FURNITURE AND ORIENTAL RUGS ELIMINATE ANY COMMERCIAL QUALITY



THE DECORATIVE SCHEME OF THE MAIN DISPLAY ROOM INCLUDES AN OAK PANELLED WAINSCOT, A PLASTER CEILING OF NEUTRAL TINT AND A TRAVERTINE FLOOR



VIEW LOOKING SOUTH
BUILDING NO. 550 SEVENTH AVENUE, NEW YORK
BUCHMAN & KAHN, ARCHITECTS

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ENTRANCE ON SEVENTH AVENUE
BUILDING NO. 550 SEVENTH AVENUE, NEW YORK
BUCHMAN & KAHN, ARCHITECTS

THE AMERICAN ARCHITECT
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DETAIL OF UPPER STORIES
BUILDING NO. 550 SEVENTH AVENUE, NEW YORK
BUCHMAN & KAHN, ARCHITECTS

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BUILDING NO. 550 SEVENTH AVENUE, NEW YORK

BUCHMAN & KAHN, ARCHITECTS

THIS building is an interesting example of the possibilities of design in a purely commercial structure and may be prefaced by explaining in the first instance that it has been all fully rented since completion and found to be a sound investment. The insistence on this point is important because it is assumed at times that low cost is the main element required in these structures and that artistic result is distinctly secondary.

The building 550 Seventh Avenue at the Northwest corner of 39th Street, has become a center of well known firms in the large garment industry in New York.

It was possible in this building to have the various elements executed by competent craftsmen and even obtain the services of a distinguished sculptor, Gaston Lachaise, for the execution of the bronze elevator doors in the entrance corridor and the mail box adjoining. It is not necessarily so important that this particular building is satisfactory architecturally as it is significant that it is possible to obtain artistic results in modern commercial structures in which the practical requirements are given first consideration and where the item of cost is most carefully noted.



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ENGINEERING *and* CONSTRUCTION

STRUCTURAL SURGERY

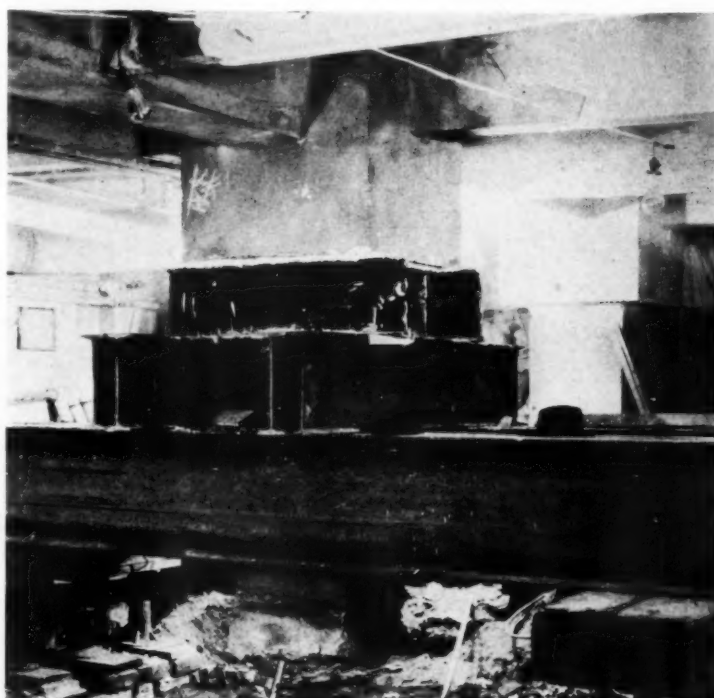
THE practice of surgery is by no means confined to human beings and animals. Like them, buildings have many of the same characteristics and are subject to damage by violence, by depreciation or they may require the attention of the surgeon because of not having been perfectly made. Structural surgery is being practiced continually and some phases of it are important. The diagnosis is made and the prescription prepared by the architect and engineer with the result that the contractor performs the actual operation.

Various causes contribute to the necessity for the rehabilitation, changing, extending or strengthening of a building. The majority of them arise from legitimate needs and some few, on the other hand, from incorrect designing or the use of inferior materials and workmanship. It is a comparatively simple matter to strengthen columns and foundations to support added stories or increased floor loads due to a change in the occupancy of the building. To strengthen the floor construction itself, however, may be more difficult. This discussion will be confined to fire-resisting construction and the application of cement products.

The actual value of the coefficient of adhesion between two volumes of concrete is usually not given sufficient consideration. It is shown by practical experience that this is a very important property of concrete. *THE AMERICAN ARCHITECT* of April 23, 1924, on page 411, printed an article entitled "Methods Used in Shoring and Removing Heavily Loaded Columns," in which was illustrated a method of supporting a reinforced concrete column on a new steel girder and removing the column below. In this instance a steel jacket was employed and an entirely satisfactory reconstruction obtained. The usual conception of concrete placement is that of pouring with possibly some measure of tamping. The results attained

from a poured contact are not usually entirely dependable because of the variable factor of the mechanic's workmanship. But with the application of a mechanically made contact, a dependable condition is established.

A striking example of mechanically made con-



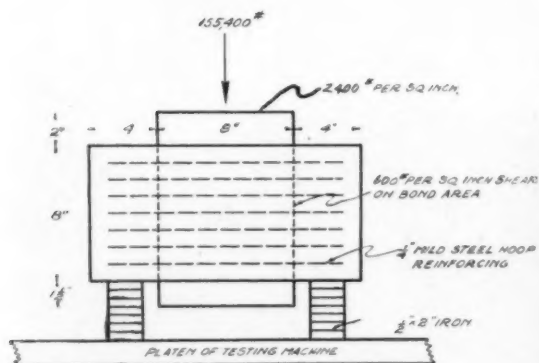
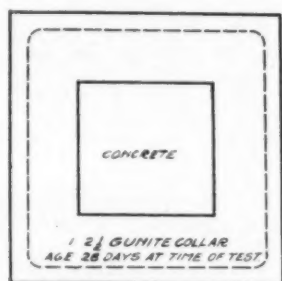
UNDERPINNING REINFORCED CONCRETE COLUMNS IN THE DIVIDEND BUILDING, SAN FRANCISCO. THE REINFORCED GUNITE COLLAR WHICH WAS SHOT ABOUT THE HEAD OF THE COLUMN, WAS SUPPORTED BY STEEL NEEDLES AND JACK-SCREWS UNTIL THE NEW FOUNDATION WAS CONSTRUCTED

tact between two volumes of concrete, is found in the Dividend Building in San Francisco. This is a reinforced concrete, seven story building and it was found necessary to construct new foundations under certain basement columns. If these columns had been made of structural steel, they could have been supported by a system of brackets riveted to the columns. To support a reinforced concrete column, however, is an entirely different matter.

In this case, the method employed was entirely different from the one illustrated in the issue of *THE AMERICAN ARCHITECT* above mentioned.

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The underpinning was done by installing a reinforced gunite collar about the top of the column, immediately below the first floor beams. This collar was 25" high and 8" thick in which were placed two wrappings of $\frac{3}{8}$ " high carbon steel wire. The first wrapping consisted of eight turns at 1" pitch, the center of the steel being 6" from the face of the column. The second wrapping



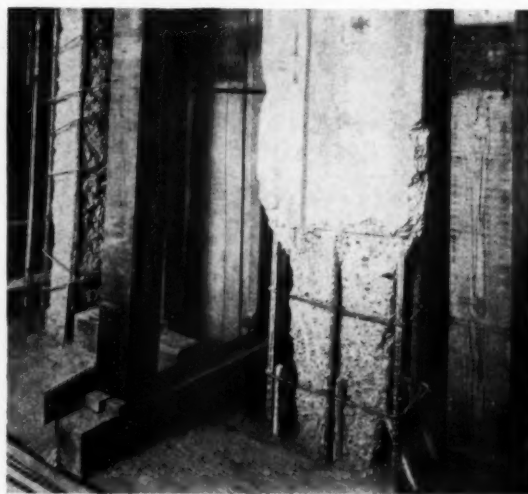
DETAIL OF THE GUNITE COLLAR TESTED AT THE UNIVERSITY OF CALIFORNIA, PREPARATORY TO UNDERPINNING THE DIVIDEND BUILDING, SAN FRANCISCO. THE TEST LOADS AND STRESSES ARE NOTED

was placed 7" from the face of the column, the lower eight turns were made at 1" pitch and the upper eight turns at 2" pitch. The collars were allowed to set forty-two days when the steel needles were set and the load successfully transmitted through the collars to the needles.

A test was made at the University of California, before doing this work. For this test, an 8" x 8", 1:2:4 mix reinforced concrete column 11 $\frac{1}{2}$ " long was used. About this was placed a 4" thick gunite collar 8" long. The collar reinforcing consisted of eight turns of $\frac{1}{4}$ " round mild steel at 1" pitch, which was centered 3" from each face of the column. The mixture of the gunite collar was 1:2 $\frac{1}{2}$. Before shooting the gunite, the surface of the column was roughened with a chisel, and thoroughly wire brushed. It was then washed with water, with a dilute solution of hydro-chloric and again with water. After 28 days the test was made.

The collar was supported on the four sides by steel plates bearing on the lower plate of the testing machine. Plaster of Paris beds were made on top of the column and between the bottom of the collar and the steel plates. When the plaster was set, the test load was applied. The column failed by crushing in that part projecting above the collar at a load of 155,400 lb. equal to 2400 lb. per square inch. At this time there was no evidence of failure in the collar. The operation of the machine was continued until the column started to move through the collar. After a perceptible movement had taken place, the collar cracked at its four corners but was still held in place by the steel banding. On examination it was found that in no place was the gunite separated from the surface of the column and that the adhesion was so strong that it sheared off a layer of the column varying from $\frac{1}{4}$ " to $\frac{3}{4}$ " thick. A shear stress of 605 lb. per square inch did not cause a failure of the bond between the concrete and the gunite.

The supporting of reinforced concrete columns by this method is very simple, comparatively inexpensive and safe. Other applications of the ad-



AT THE LEFT IS SHOWN A COLUMN IN SCHOOL NO. 68, BUFFALO, N. Y., FROM WHICH THE CONCRETE HAS BEEN REMOVED, COMPLETELY EXPOSING THE REINFORCING BARS. CONCRETE PARTIALLY REMOVED FROM THE COLUMN SHOWN AT THE RIGHT. COLUMNS RECONSTRUCTED BY RE-ENCASING THE REINFORCING STEEL WITH GUNITE

hesion of gunite to concrete will undoubtedly be made to meet unusual requirements.

Structural steel columns have been reinforced for added loads with vertical bars of spiral reinforcement. The concrete is usually poured in forms. While the volume of concrete so used is small and the cost of the material negligible, the cost of forms and labor is a serious item. There is

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the further element of uncertainty as to the quality of workmanship. It is extremely difficult to top out such additional column area and secure a perfect and positive contact between it and the girders, beams and floor construction. With gunite, the forms are not needed as two strips of wood serving as a screed are sufficient and the delivery of the material under pressure insures a perfect and positive contact and adhesion between the parts.

Structural weakness of reinforced concrete buildings, due to the use of inferior materials or freezing, is a condition that architects and engineers are sometimes required to correct. The replacement of defective construction in Public School 68, Buffalo, is an example of structural surgery that included the strengthening of floor slabs, girders and columns.

The floors of the classrooms are made of combination hollow tile and reinforced concrete joists with concrete top over the tile. The corridor floors are made of solid reinforced concrete slabs. The

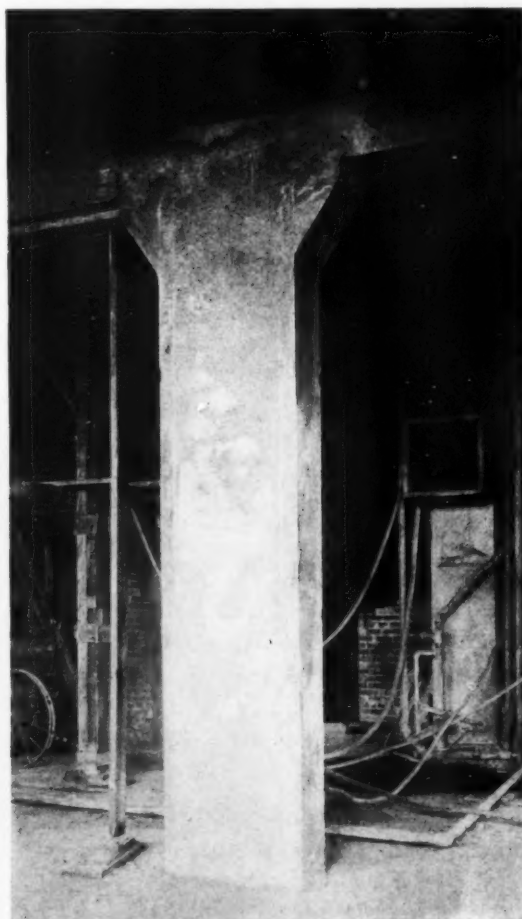
strength. The corridor floors had the top removed to a depth of several inches which was replaced with gunite. On the underside of the floor, reinforcing rods were placed in position with their ends bent down alongside the girders. The ends of these rods were wired to a horizontal rod attached to the side of the girders near their lower



REINFORCING PLACED ON THE CORRIDOR CEILINGS OF SCHOOL NO. 68, BUFFALO, N. Y. THE ENDS OF THE BARS ARE ATTACHED TO THE HORIZONTAL BAR NEAR THE LOWER EDGE OF THE GIRDER. HEAD OF THE RECONSTRUCTED COLUMN SHOWN AT THE LEFT

floor construction is supported on the exterior brick walls and on reinforced concrete girders and columns along both sides of the central corridor.

The classroom floors were reconditioned by removing the concrete topping down to the hollow tiles. The topping was replaced by gunite which made a compression area of sufficient density and



REBUILT COLUMN AND GIRDERS IN SCHOOL NO. 68, BUFFALO, N. Y., WITH NEW GUNITE CORRIDOR CEILING BACK OF THE GIRDER AND COLUMN

side. Gunite was shot against the corridor ceiling, on the side of the girders, encasing the reinforcing steel.

The concrete in the columns was removed so as completely to expose the reinforcing steel. The columns were rebuilt with gunite to the required size and brackets added to give additional support to the ends of the girders. As reconstructed, the building now has the required strength to make it safe. When the reconstruction of this building was completed it was found necessary to convince the public that the building was safe for use as a

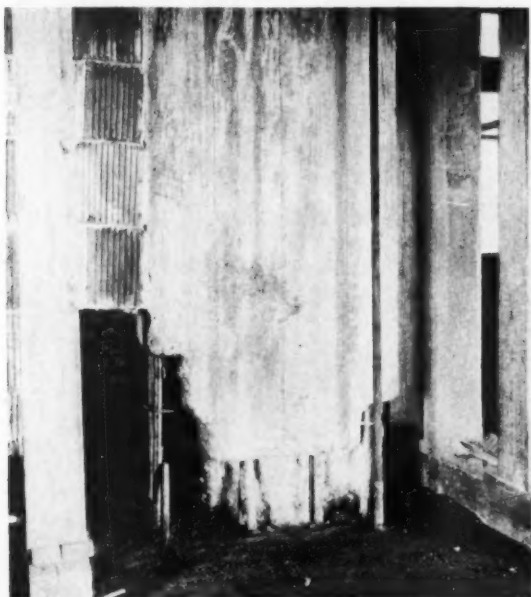
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schoolhouse. A live load test was made on the floors, using 250 tons of pig iron. The uniformly distributed load was 197.8 lb. per square foot which was four times greater than the load for which the building was originally designed. The deflection was less than was estimated for the normal live load.

The Heard Building, Phoenix, Arizona, was designed for a live floor load of 60 lb. per square

walls and the girder was 132'-0" long, supported by six cast iron columns.

The steel and cast iron work was unprotected by any permanent covering, except possibly paint, when the building was constructed. This bare metal was exposed to steam given off from the



OLD COLUMN IN SCHOOL NO. 68, BUFFALO, N. Y., PARTIALLY PREPARED TO BE RECONSTRUCTED WITH GUNITE. THE CORRIDOR GIRDERS AND BEAMS WERE TEMPORARILY SUPPORTED BY TIMBERS

foot. It became necessary to strengthen a floor to support a live load of 200 lb. per square foot. The concrete surfaces were chipped and thoroughly cleaned before the reinforcing steel was placed about the existing girders and beams and attached sufficiently to hold it in position until the gunite was shot in place. The ceiling was arched from beam to beam with gunite which gave the necessary strength to the floor panel. The illustration affords an interesting study of the ingenious manner in which the reinforcing was installed.

Perhaps the most desperate case of structural surgery was that in the plant of the Armstrong Packing Company, Dallas, Texas. The floor construction consisted of a solid concrete slab supported on 10" I-beams with one end resting on the masonry walls and the other ends riveted to the web of 24" I-beam girders which were supported by 9" round cast iron columns. These members were rebuilt to the dimensions of 10" x 16", 18" x 30" and 18" x 18" respectively. The 10" I-beams spanned 18'-0" from the girder to the side



VIEW IN SCHOOL NO. 68, BUFFALO, N. Y., SHOWING THE REFINISHED CLASSROOM FLOORS AND THE OLD CONCRETE TOP REMOVED FROM THE CORRIDOR FLOORS TO RECEIVE THE GUNITE

process of making fertilizer. The space above was used as a hog killing room and when the floors were washed after each run, the water leaked through and added another factor to corrosion.

The steel beams and girders became so corroded that heavy wooden supports were placed directly under the concrete slab to give it support. In some instances the web of the girder was entirely destroyed where the floor beam connection was made. The cast iron columns were badly pitted and corroded. The steel beams and girders were



THE RECONSTRUCTED FLOOR SYSTEM OF THE HEARD BUILDING, PHOENIX, ARIZONA, SHOWING THE GUNITE ARCH, WHICH STRENGTHENS THE ORIGINAL FLOOR PANEL, BETWEEN THE BEAMS

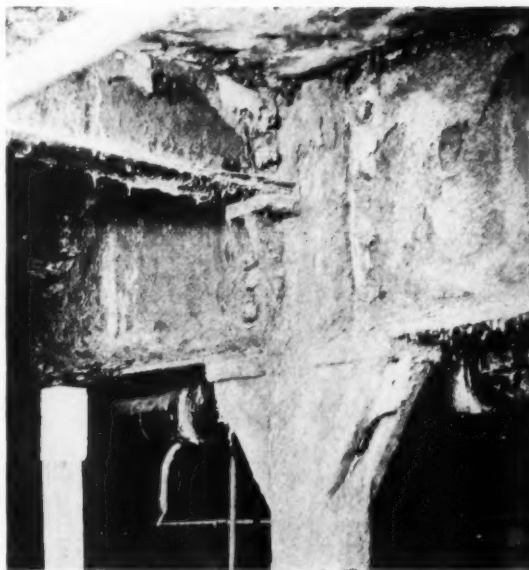
first shored up with upright timbers on the tops of which were 4" x 4" and 4" x 6" precast concrete blocks. These blocks served as depth guides for the gunite and were, of course, incorporated in it and left in place when the supports were withdrawn.

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The beams and girders were first covered with steel triangular mesh fabric which extended over both sides and the bottom in one piece. The mesh on the sides was tied together by wire through holes punched through the webs. The reinforcing rods, below and at one side of the structural steel beams, were held in position by stirrups which were open at the top and not anchored to the members to be built up. It was impossible, under the circumstances, to keep the rods and stirrups in perfect alignment and the finished beams and girders have an irregular surface. The round cast iron columns were reinforced with a square cage made of vertical rods tied together horizontally with smaller rods.

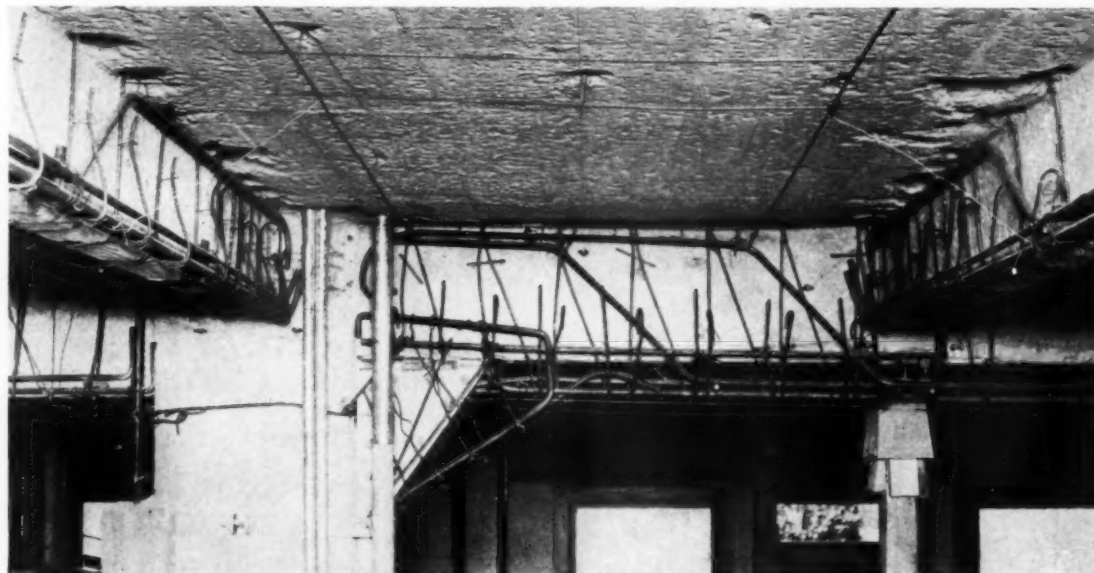
Vertical screeds were used to form the columns but no forms or screeds were used on the beams and girders. For this reason they present a very rough and irregular appearance. Time was an essential element of the contract and the gunite was shot as soon as the reinforcing was in position. The supports were removed before what is usually considered to be the proper time, but no deflection or cracking developed. During the installation of this work vibration was ever present in the floor, water was leaking through the floor after each kill and extreme heat was generated by the fertilizing apparatus. Notwithstanding these adverse conditions, the work is solid and substantial in every particular.

The action of the cement gun in depositing gunite is one that involves impact in depositing the material and with it the properties of penetration and adhesion to a high degree—in fact, in



PHOTOGRAPH SHOWING THE CONDITION OF THE STRUCTURAL STEEL BEAMS AND GIRDERS IN THE PLANT OF THE ARMSTRONG PACKING COMPANY, DALLAS, TEXAS. THE CONCRETE FLOOR PANELS WERE SUPPORTED WITH UPRIGHT TIMBERS, RELIEVING THE BEAMS AND GIRDERS OF THEIR LOADS UNTIL THEY WERE REBUILT

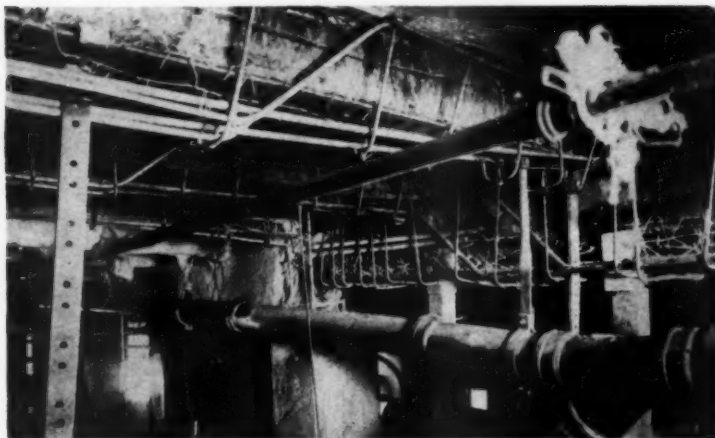
some instances it might be termed amalgamation. In many instances the work accomplished is analogous to that of the dentist in filling cavities in teeth. A perfectly sound and durable restoration is made.



REINFORCING PLACED ABOUT THE CONCRETE GIRDERS AND BEAMS IN THE FLOOR OF THE HEARD BUILDING, PHOENIX, ARIZONA, PREPARATORY TO SHOOTING THE ENCASING GUNITE. THE LIVE LOAD CAPACITY OF THE FLOOR INCREASED FROM 60 LB. TO 200 LB. PER SQUARE FOOT

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These are but a few examples of how structural surgery has been applied and they give confidence in the ability of the architect and engineer to devise successful methods for correcting the ills and damages and satisfying the needs of structural frames of buildings when and as required.



THE REINFORCING PLACED ABOUT THE STRUCTURAL STEEL GIRDERS AND BEAMS IN THE ARMSTRONG PACKING COMPANY PLANT AT DALLAS, TEXAS. THE BEAMS AND GIRDERS WERE FIRST COVERED WITH TRIANGULAR MESH. THE COLUMN AND GIRDER TO THE LEFT HAS ALREADY BEEN SHOT WITH GUNITE. NOTE THE PRECAST CONCRETE BLOCK ON TOP OF THE UPRIGHT TIMBER SUPPORTS, WHICH WERE INCORPORATED IN THE GUNITE

Damage done to buildings by earthquakes in this country, quite considerable in the aggregate, has been so infrequent and so widely scattered that designing to prevent it is not a common practice. There is a marked tendency in the earthquake zones at this time, to take cognizance of the possibility of damage and destruction. It is to be expected that an earthquake will cause a large amount of damage that can be restored by structural surgery. At this time a large amount of reconstruction is being done in Santa Barbara in which gunite and other materials and methods are being employed.

Although the methods employed in structural surgery are very interesting and an understanding of them is important, there is another phase of the subject that should be considered. The similarity of some characteristics of buildings and human beings in many respects has been mentioned. Preventative therapeutics is an important element of the treatment of human ills and it should be employed in building construction. An example cited in this article shows that the building had to be reconstructed, in part, before it was finished, in order to make it safe for occupancy. This was not a legitimate condition as the necessity for strengthening the structure was not caused by things beyond the control of the architect and the builder.

Freezing temperatures during the construction of reinforced concrete buildings are always a source of danger. Printed instructions for construction under these conditions are numerous. There must be something else in the nature of preventative therapeutics between the printed instruction and the execution of the work. This indeterminate factor is a part of the professional equipment of the contractor which is acquired by observation and practice.

The awarding of a contract to such a properly qualified builder is done by the architect and the owner and it may be that between them lies the responsibility for improperly constructed buildings. In any event, the rehabilitation of an unfinished building before it is safe for occupancy, is not a satisfactory thing to contemplate. When structural surgery is resorted to because of neglecting properly to care for and protect exposed parts, the responsibility is clearly that of the building's occupant. In this case, neither the architect nor the contractor is responsible as that lies clearly with the occupant. A preventable waste is not a satisfactory thing to contemplate.

On the other hand, the strengthening or rebuilding of parts of a structure to make the building suitable for a change of occupancy is generally an indication of progress. The structural surgery employed for these cases engages our best talents without regrets. Preventative therapeutics, intelligently applied, will eliminate wasteful structural surgery and improve the character and quality of building construction.

LIFE OF STRUCTURES FOR BOND PURPOSES DEFINED

AMONG the laws passed at the recent session of the New York State Legislature was an amendment to Sec. 51 of Chap. 58 of the Laws of 1909 establishing a legal length of life for various structures for use when issuing bonds for financing their construction. The revision increased the probable life of sidewalks of brick, stone, concrete, crushed stone, rock dust, cinders or asphalt to 25 years and added clauses placing the life of dams, docks and sea walls at 25 years and of park improvements including forestry work, fire protection, planting, grading and park equipment at 25 years.

TORNADO RESISTING CONSTRUCTION

IMMEDIATELY after the Illinois tornado of March 18, 1925, the Western Society of Engineers designated a committee to investigate and report on the tornado damage to structures. Its report is printed in the September *Journal* of the Society, from which are printed the conclusions of the committee.

The investigation did not indicate any condition of complete vacuum or a bursting pressure of 2000 lbs. per sq. ft. There is sufficient evidence to warrant a conclusion that in the path of the tornado there exists an unusually low pressure, and in respect to extreme conditions, recommendations are out of order.

In this broad path type of tornado, evidence was found that most of the damage was caused by a direct force, rather than a vacuum and explosive force, and it is deemed proper to draw conclusions and make limited recommendations.

This direct force is in reality a resultant force and consequently varies in intensity and direction. Inspection indicated a lax manner of construction with no thought given to anchorage details. In most cases there were no ties between floors, roofs, joists and walls, sills and foundation walls, and face brick was laid up without bonding to the common brick backing.

An analysis of the facts indicates that the damage caused by a tornado can be divided into three classifications: 1—Damage due to initial failure of the structure as a result of pressure. 2—Damage due to flying debris being driven against the structure or deposited on the structure. 3—Damage due to fire.

The fires originate from the heating plants and cook stoves in the structures demolished. The only method of preventing such fires is to build all structures of fire resistant materials.

The damage due to flying debris would be reduced to a minimum if the damage due to direct pressure could be overcome, because, without failure of structures there would be much less debris.

In order to analyze more fully the problem and to make practical recommendations, a physical classification of structures has been made as follows: 1—Frame construction. 2—Ordinary construction, with brick walls, frame joists and girders, fire resistant roof. 3—Mill type or slow burning construction. 4—Fireproof construction. The order of this classification is the reverse of that which is most highly recommended. However, it is the order of most frequent occurrence and needing most careful consideration. 5—Miscellaneous structures.

The economic conditions in the tornado zones make the use of timber and similar structural materials almost imperative, and the builder in a tornado zone should bear in mind the need of

construction to resist excessive wind pressures.

Certain simple features, such as bolting the sills to the foundations, securely anchoring the plates, joists, studs, rafters, etc., as well as tying the corners adds an inappreciable amount to the total cost of even the cheapest type of structure. Such added precaution reduces the liability of damage from ordinary windstorms and may even resist the forces of less intensity along the edges of a tornado. The saving due to even such minor precautions would probably run into a startling figure in a tornado of the extent of the recent Southern Illinois type.

The cheap frame house, of the type commonly set on posts in the warmer climates, should at least be set on concrete piers. The sleepers or sills should be mitered and securely anchored to these piers. The larger the piers the better, in fact a continuous wall would be most desirable. If only piers are used, the space between them should be closed. This will prevent the wind getting under and lifting the building.

A next step would be to extend anchors from the concrete piers up between the studs and connecting to the plate or even to the roof framing. Such anchors at frequent intervals would supplement the more or less casual nailing of the studs to sills and plates. Strap iron ties should secure the rafters to the plates. In all cases studs should run continuous from the sill to the rafter plates.

The next feature is that of bracing. The average builder considers the nailing of sheathing and siding on one side of a row of studs and laths to be coated with plaster on the other side, as a rigid system of bracing. This can never compare with a well planned system of bracing.

In walls that are not cut by window or door openings, the bracing should extend diagonally from one corner of the wall to the opposite side, in both directions. This may be accomplished by bridging between the studs, by tie rods or bolts or by tie straps. The straps may be made lath thickness and securely nailed to the face of the studs. This method of bracing applies to interior partition walls as well as to exterior walls. The designer and builder should bear in mind the necessity of having vital points, like brace reaction points, partition and side walls and the like, securely attached.

In cases where openings cut the walls, the bracing will of necessity be in knee brace form or like tower bracing at the sides of the openings.

The value of inside partitions as bracing cannot be overestimated. The loads should be conveyed into the outer walls and into substantial footings. For safety, a small cellar, made of concrete and properly reinforced, may be built, which can serve

as a furnace, heater, or fruit room. An advantage in having the heater room so built is the protection against fires. The chimney should be so built that removal of the upper part would not directly affect the furnace fire.

The next improvement and one most highly recommended is a basement under the entire house, constructed of concrete and having a reinforced concrete floor above for the building's first floor. A basement so constructed would serve as temporary living quarters after a disaster. In some localities, it might be well to recommend such basements, English style, to be constructed first and occupied until such time as the owner would be in a position to complete his home. A type of architecture might well be developed along the Spanish style, suitable for tornado zones. Studies along that line would tend to eliminate projecting cornices, overhanging eaves, and similar features that act as wind pockets.

What is termed ordinary construction, that is buildings having concrete foundations, brick walls and timber floor and roof construction, is most commonly used for commercial and industrial as well as small community buildings. It was this type of structure that caused the largest loss of life in the recent tornado. When it fails the walls fall and crush the occupants.

The brick wall must be set on a good substantial foundation. The foundation should be amply wide to give full bearing to the wall, and should be designed to take safely not only the direct load, but also stress due to eccentric load or overturning tendency.

The brick wall should be fully reinforced with pilasters. In single story walls the pilasters should be not less than 17" thick. The width of the pilasters should be not less than one-eighth their spacing. Special provision should be made for unusual story heights and long free-standing walls. Another vital point is thorough bonding. This is especially so for walls having face brick surfaces. Header courses should be laid in at least every fourth course.

In structures of this type, it is very difficult to build in very many ties and braces. For that reason, special consideration should be given to cross walls, stair well walls, elevator enclosures and the like. An interior wall should be built and securely bonded to other walls at every point offering the opportunity. In the devastated area, walls of this nature were found to have served to good advantage. The use of brick dividing and partition walls, instead of tile or frame partitions, may serve to save the structure. In all cases, brick walls should be laid up in cement mortar. The anchoring of columns, girders, joists and roof construction is of vital importance. The field inspection disclosed an almost entire absence of such anchors and tie-in details which indicated a gross negligence and ignorance of them.

In addition to the foregoing features, the boiler room, at least, should be of concrete construction with a reinforced concrete slab above. Much better, have the entire first floor, over the basement, of reinforced concrete construction and securely anchored to the foundation walls.

Since this type of structure is frequently used for store buildings, factory buildings, small community schools, meeting halls, and churches where many people are likely to be congregated, the basement would readily lend itself to use as a storm cellar. Suitable means of entrance, with a substantial iron or heavy door, could easily be provided. The windows should be fitted with steel sash and wire glass.

In the mill, or slow burning type of construction, the foregoing precautions as to foundations, pilasters, anchorage and the like should be carefully considered in designing.

This type of structure is in general more rigid than ordinary construction. It is certainly justifiable to have the basement and the first floor slab made of reinforced concrete, securely anchored to the foundation walls.

All columns should be securely tied together and at the bottom anchored to the footing. Girders in all cases should be anchored continuously from wall to wall, to the walls, and to the columns. Every other line of joists should be anchored together and into the walls. The roof construction should be anchored in a similar manner.

The fireproof type of construction should be used in the construction of all public buildings, such as court houses, city halls, schools for cities and districts, and similar structures.

This type of construction divides into two classes, namely, "wall bearing" and "skeleton." Skeleton construction, properly designed, will undoubtedly resist a severe storm. Wall bearing construction should receive special consideration in line with the foregoing recommendations. The designer should bear in mind the possibility of abnormal loads and provide ties, bracing, anchors, etc., accordingly. This type of construction lends itself readily to a system of ties from roof to foundation. Even in the wall bearing type, a slight additional expense would be justified to run reinforced concrete piers from roof to footing as a tie to make the structure a unit.

In conclusion, the committee further recommends that a designing wind pressure of 65 pounds per square foot be used with a factor of safety of four; that the weight of the structure be divided by the factor of safety of four before entering the weight into the calculations for stability; that special consideration be given to anchorage and wind bracing details of construction; and that normal deterioration of anchors and bracing should be considered. It is recommended that building codes and building inspectors take cognizance of these tornado resisting details.



PEORIA "STAR" BUILDING, PEORIA, ILL.
HEWITT & EMERSON, ARCHITECTS



PEORIA "STAR" BUILDING, PEORIA, ILL.

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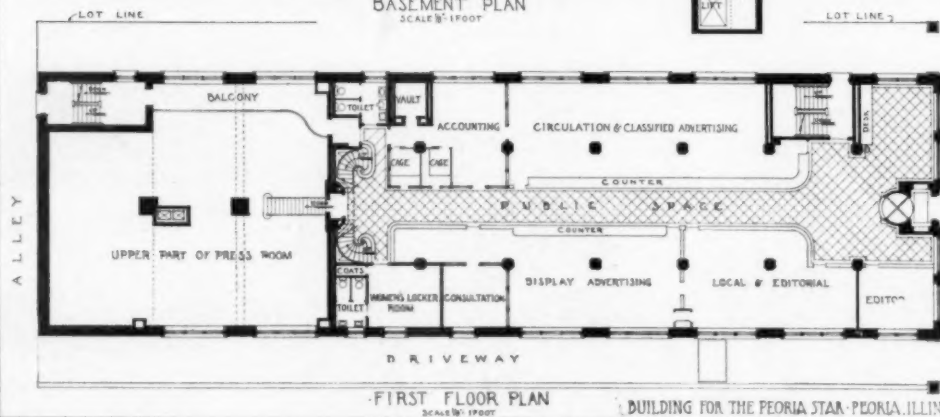
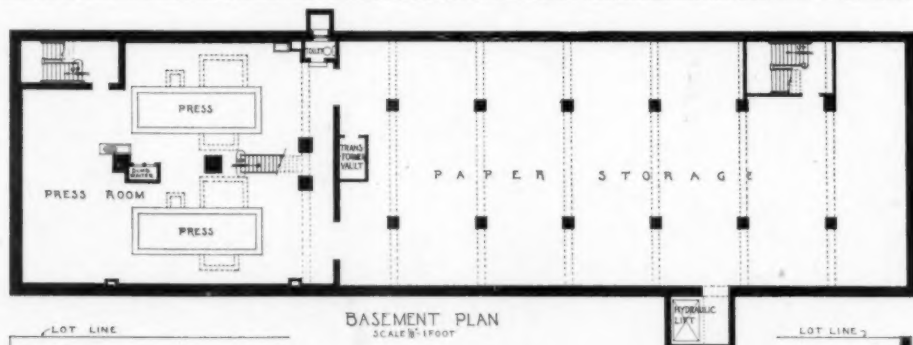
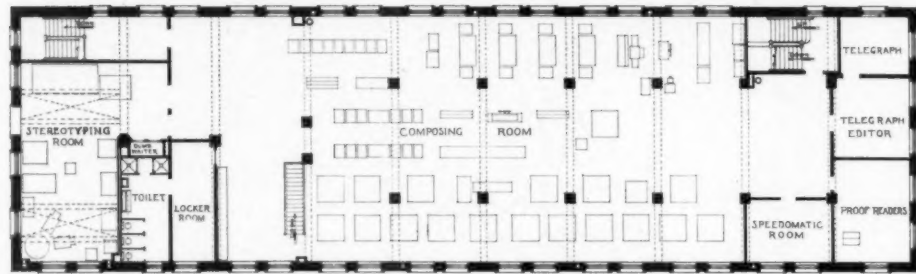
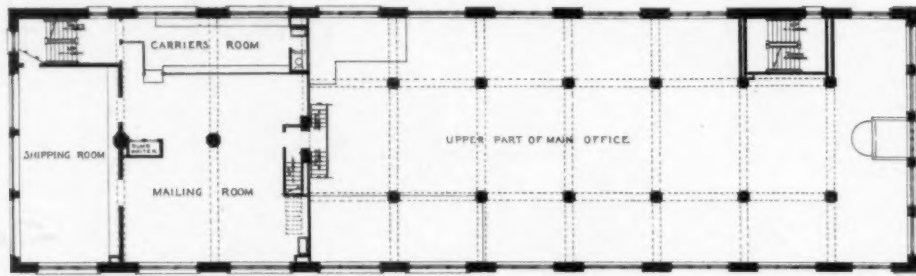


PEORIA "STAR" BUILDING, PEORIA, ILL.
HEWITT & EMERSON, ARCHITECTS

A WELL designed and thoughtfully planned building to suit the requirements of a newspaper publishing building in one of the smaller cities. The press room and paper storage are located in the basement, the press room extending up and through the first floor, thus affording fine natural, or day lighting. General offices, editorial and mailing rooms are located on the mezzanine floor. The composing room is particularly well arranged and lighted.

This building is of reinforced concrete construction, the exterior walls being of brick faced on the front with Bedford stone. Partitions are of hollow tile. Trim is birch. The building is heated by a vapor steam system. The cost per cubic foot was 66¢.

THE AMERICAN ARCHITECT



PEORIA "STAR" BUILDING, PEORIA, ILL.

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THE AMERICAN ARCHITECT



HOUSE OF W. J. RYNICK, ALLENDALE, TERRE HAUTE, IND.

JOHNSON, MILLER, MILLER & YEAGER, ARCHITECTS

HOUSE OF W. J. RYNICK, ALLENDALE, TERRE HAUTE, IND.

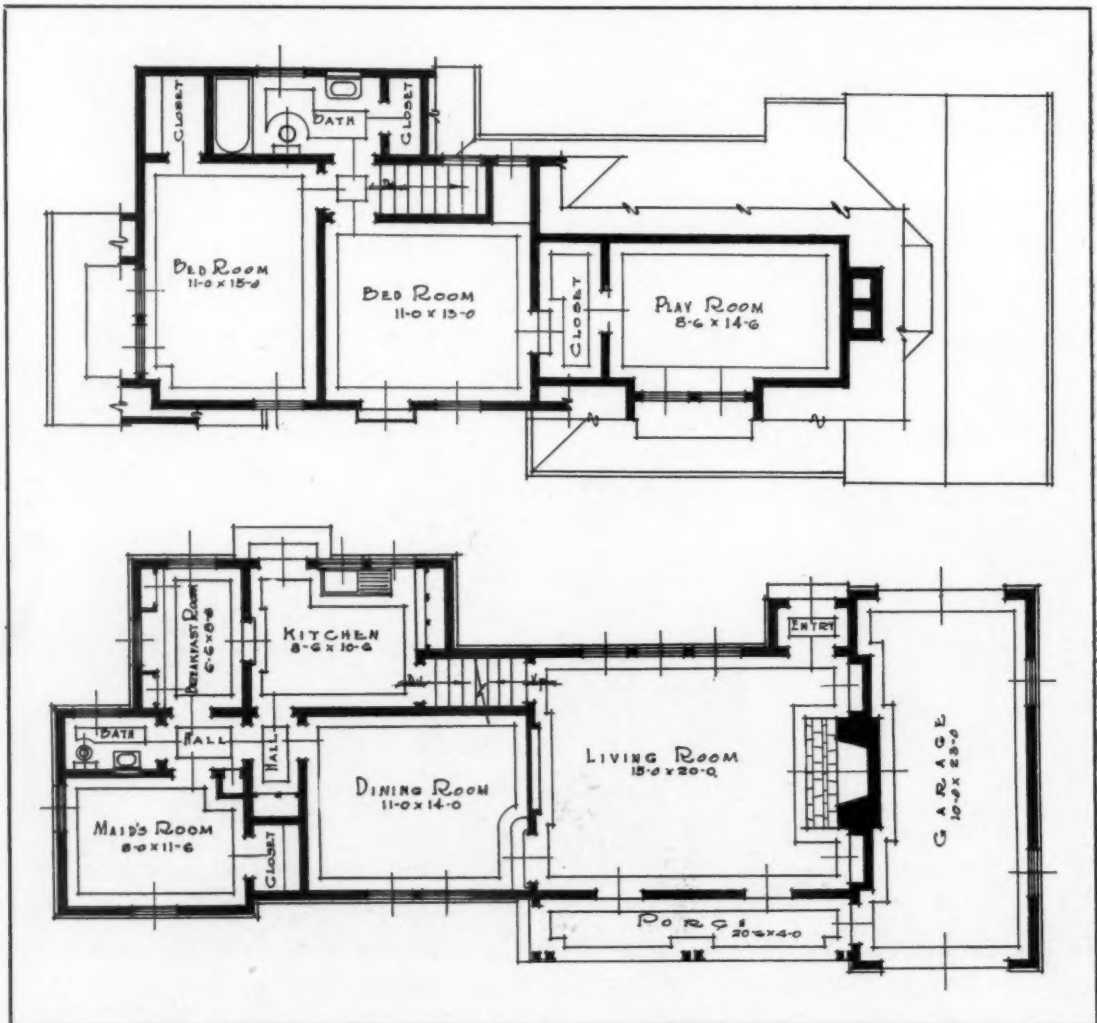
JOHNSON, MILLER, MILLER & YEAGER, ARCHITECTS

THE exterior of this house is marked by its simplicity. The effect of austerity will undoubtedly later be relieved by well considered planting. The general construction is wood frame, with a patent stucco over wood lath on the exterior walls. The roof is covered by a variegated slate. Inside partitions are of wood and plaster, and the trim is of birch. House is heated by hot air, and has the usual standard plumbing equipment. It was built in 1923 and cost approximately 56.8¢ per cubic foot.

The style of awnings selected does not appear

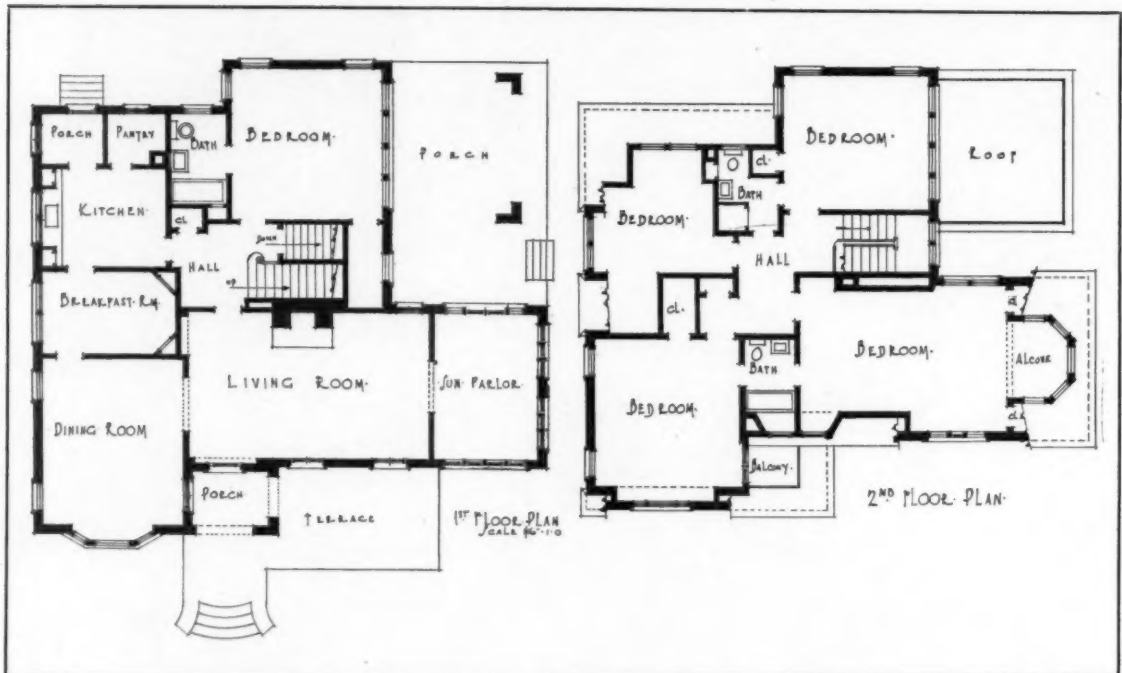
to be adapted to a house of this nature. A simple awning, without pattern and of a color properly supplementing the stucco tone, would have produced a more pleasing effect.

The unusually large garage, with wide entrance back and front and the large living room absorb more than half of the first floor plan. The servant's room and servant's bathroom have been placed on the ground floor, insuring privacy of second floor which provides good sized bedrooms and a large children's play room, located directly above the living room.





HOUSE AT DALLAS, TEXAS
BERTRAM C. HILL, ARCHITECT



HOUSE AT DALLAS, TEXAS
BERTRAM C. HILL, ARCHITECT

THIS house is located on a high, terraced site which overlooks a main road. Exterior walls are of brick veneer construction, the brick selected being of variegated hues and rough in texture. It was built in 1923 and cost was 40¢ per cubic foot.

Certain features of the plan are typical of this section of the United States where the climate is more or less equable. The ground floor plan provides a large living hall with sun parlor adjoining. The dining room, breakfast room and kitchen are well placed. There is a bedroom with adjoining bath on this floor, with large window space leading to a spacious living porch. Note the many and wide windows.

On the second floor there are four bedrooms and two baths, with ample closet space.

GERMAN COMPETITION IN HOUSING

THE news that a German firm is able to secure a contract for the erection of 230 houses in Dublin at a figure £4,000 lower than the lowest Irish tender, will come as a surprise, states *The Builder*, London, to those interested in housing costs, especially as it is reported that the houses are to be built of concrete blocks "made in Germany." We have become accustomed to foreign competition in materials, but not in actual construction. The news is the more extraordinary when we remember that the chief claim of the concrete house to cheapness is that the walling, or walling units, can be made by unskilled labor

from local materials. We have no further information so far than is contained in the daily press, and we are inclined to doubt whether this gives an accurate impression of the facts. Messrs. Kossel, the firm in question, have for some years made a specialty of building concrete houses. But their system makes no use of precast concrete units. It is a monolithic system, in which a slag and clinker concrete is poured between a highly efficient wooden shuttering. We do not, of course, know whether the firm is proposing to use a different system for these Dublin houses, but we think it is highly probable that all that will be "ready made in Germany" is the shuttering. Certainly it would be remarkable if lower wages, together with the difference in the rate of exchange, made it possible to deliver German concrete blocks in Ireland cheaper than the home made article, for as the cost of transporting them from the docks to the site would not be less than the cost of bringing sand and gravel from the pit, the saving in cost could only be effected by the difference in unskilled labor in Germany and Dublin.

SLUM CLEARANCE IN AMSTERDAM

THE local authorities are now preparing to deal with Amsterdam's slums. A recent inquiry developed the need of new housing for over 500 families in the Jewish quarter of Uilenburg. The old quarter is to disappear and new houses are to take the places of the old ones. The rents of the new houses are to vary from 3 to 5 or even 7 florins a week. (The florin equals 40 cents.)



THROUGH THE USE OF ANACONDA ARCHITECTURAL BRONZE EXTRUDED SHAPES, MESSRS. STARRETT AND VAN VLECK SECURED FAITHFUL REPRODUCTIONS OF THEIR DESIGNS IN THE ENTRANCES AND DISPLAY WINDOWS OF SAKS & COMPANY'S NEW FIFTH AVE. STORE, NEW YORK.

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THE AMERICAN ARCHITECT

ALEXANDER TROWBRIDGE ELECTED PRESIDENT OF THE ARCHITECTURAL LEAGUE OF NEW YORK

ALEXANDER B. TROWBRIDGE has been elected president of The Architectural League of New York, to succeed the late Donn Barber.

PRODUCERS' RESEARCH COUNCIL

THE semi-annual meeting of The Producers' Research Council, affiliated with The American Institute of Architects, will be held in Chicago on November 10 and 11 at the Club House of the Chicago Chapter, A.I.A.

The meeting will be addressed by N. Max Dunning, Technical Director of the Scientific Research Department, A.I.A.; Harry Wheelock, President of the Chicago Chapter, A.I.A.; and Charles E. Fox, President of the Illinois Society of Architects.

It is hoped that D. Everett Waid, President of the Institute, will be present.

A cordial invitation is extended to every architect to attend the sessions of the meeting.

"OR EQUAL"

WE have received many communications approving the stand taken by this journal with reference to various phases of specifications, and particularly as to the pernicious "or equal" phrase.

Mr. J. H. Stedman, President of the Stedman Products Co., of South Braintree, Mass., has been moved to express his views in verse. He has so aptly set forth his opinion and we so thoroughly concur with it, that we append Mr. Stedman's poetic expression. He writes:—

Or Equal, Oh you fakirs friend
Why specify at all
If alibis you needst must have
John Doe would answer all.

You men whose pencils pierce the sky
With buildings mountain high,
Get up on top and get the view
The best is not too high.

Just put the kind you're sure is best
Upon the contract form
And stand for that 'till hell is cold,
That's running true to form.

ZONING ROADS BY TRAFFIC

ANYONE touring through the country cannot doubt that we are coming to a control of the use of certain highways much greater than now exists, states *Engineering News-Record*, editorially. Already we limit the size and weight of vehicles, but the restrictions are by no means sufficient to guarantee free passage of the passenger vehicle on many of our through roads. If an airplane moving above the ordinary motor truck en route on any inter-city road of two-car width

could take a continuous moving picture of that truck it would show a line of faster moving cars always behind the truck. The same cars would not be there but there would always be a queue, with the nearest car edging aside trying for a safe dart around the truck. The time lost to the automobile is very large and the increased congestion quite obvious. In our cities we are coming to a restriction of use which relegates the truck to certain streets, which in itself makes that street less attractive to the passenger car. Similar congestion on highways does not necessarily lead to the same restrictions, for remedy may be found in wider roads, where ample by-pass room is provided. But just the same, if motor trucking continues to increase at anywhere near the acceleration it has increased in the past five years, passenger automobilism on some of our narrow and curved roads will become an impossibility. The remedy lies in more and wider roads, but that is expensive and it may not be possible to keep it up to the demand. There is, though, always the possibility of zoning for road use. Traffic censuses, of the complete sort which not only list existing but potential traffic, will be needed to justify such zoning, and a courageous executive will be needed to decide which is the paramount use of the road, but once ordered for some properly located road, there is little doubt that the advantages to both trucker and passenger car drivers would commend an extension of the principle.

HISTORIC CHAPEL, ATTENDED BY SIX PRESIDENTS, SAVED-FROM SALE TO PAY TAX ASSESSMENTS

ST. JAMES EPISCOPAL CHAPEL at Elberon, N. J., attended by six Presidents of the United States in the fifty years since it was erected, was saved recently by a dealer in local real estate, from being sold for non-payment of assessments due the City of Long Branch. The assessments were mostly for street paving and improvements.

The Presidents who, while visiting seashore resorts in this vicinity, attended services in St. James' Chapel were Grant, Garfield, Hayes, Arthur, McKinley and Wilson.

EARLY CHINESE PRINTING

THE British Museum has recently acquired a group of objects of pottery and bronze found at Felmingham Hall, Norfolk, in 1844, with coins of about A. D. 255. The bronzes include two heads, probably of local workmanship, and a striking little figure which, it is thought, may have been imported. There has also been secured the second earliest piece of known Chinese printing. This was discovered in the foundation of a building erected in China in A. D. 975, which fell down in 1924. Other acquisitions include an Assyrian cylinder seal of the seventh century B. C. made of chalcedony, which gives a clear representation of two riders on camels, and a number of French Revolution and Napoleonic prints.

The Importance of Finish

How many times is an otherwise excellent building marred by the extravagance of useless ornamentation — cost increased by the addition of the very things which, most often, decrease appeal to the prospective renter. The best architects have an idea that good taste is not only desirable, but actually profitable, and the general success of buildings conforming to their idea and financed by us is conclusive evidence that they are right.

We are always interested in loans of \$250,000 upward, either on completed buildings or structures to be built. Write today for our booklet—*The Straus Plan of Finance*—and address our

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DAILY TRAVEL ON ELEVATORS

DURING the recent convention of the National Association of Building Owners and Managers in Cleveland, it was brought out that according to official estimates 14,000,000 passengers ride in elevators in the principal cities of America daily. No doubt, if the smaller cities and towns had been included, it would have been found that 25,000,000 passengers are handled by the elevators of America daily.

NEW COMPETITION FOR THE OCTAGON HOUSE INSCRIPTION

EARLY in the year prizes were offered in a competition which closed April 1, 1925. It was expected that awards would be made at the Exhibition in connection with the 58th Convention in April. The Jury, of which Howard Van Doren Shaw acted as Chairman, reported that none of the designs submitted were suitable for the purpose and the Jury decided to make no awards. This result was a disappointment to the Committee as it must have been to those who sent in drawings. Most of the designs submitted were too monumental and out of scale with the building, while others were not in keeping with the dignity of the building.

A new competition is hereby announced and those who have made studies are urged to revise them or make new ones for submission. All others interested also are invited to participate.

The Building Committee desires through a competition to secure a design for a tablet, sign, or historical device which will be dignified and refined and at the same time sufficiently conspicuous to attract the attention of the passerby. The purpose is to inform the public as to the historic and architectural importance of the building.

The following inscription is suggested:

The Octagon House
Erected in 1800

Occupied by President Madison when
the White House burned in 1814.

The Treaty of Ghent was ratified here.

Headquarters of
The American Institute of Architects

The inscription may be varied at the pleasure of the competitors.

It is suggested that the memorial device take the form of a wall tablet to be fastened to the building, or an inscription in individual bronze letters let into a stone or granite sidewalk leading to the front entrance, or a sign on a pole or standard. Each competitor is at liberty to follow any idea of his own or to suggest an alternative.

Competition is open to all architects and draftsmen.

Drawings should not exceed 24" x 36".

Rendering and scale at option of competitor.

Drawings shall be delivered anonymously to D. Everett Waid, 1 Madison Avenue, New York, N. Y., on or before January 1, 1926, with the

name and address of the competitor enclosed in a plain sealed envelope.

Prizes will be awarded by the Building Committee as follows:

First Prize	\$150
Second Prize	100
Third Prize	50

The Jury reserves the right to withhold any prize if in their opinion an award is not deserved.

The Building Committee shall have the option of using any designs or suggestions upon according due credit to the authors.

Entry, of course, is free and additional copies of this program may be had on application to The Octagon House, Washington, D. C.

THE STONE INDUSTRIES

THE production and use of stone for various purposes in 1924 is practically identical with the uses in 1923 so far as the total value is concerned, but shows variations in different divisions, states *The Clay Worker* in one of its recent issues. The total value of the products in the stone industries for the year 1924 is given as \$159,936,000. The biggest item in this is crushed stone, which makes up nearly half the total. The next item in importance being building stone, followed by the furnace flux, and monumental stone in the order named. The figures as tabulated by the U. S. Geological Survey on the value of stone used for different purposes during the year are as follows:

Use	Value
Building stone	\$32,270,000
Monumental stone	15,192,000
Paving blocks	3,568,000
Curbing	3,458,000
Flagging	558,000
Rubble	1,250,000
Riprap	2,750,000
Crushed stone	73,700,000
Furnace flux (limestone and marble)	15,888,000
Refractory stone (ganister, mica schist and dolomite)	1,302,000
Manufacturing industries (limestone and marble)	10,000,000
Total	\$159,936,000

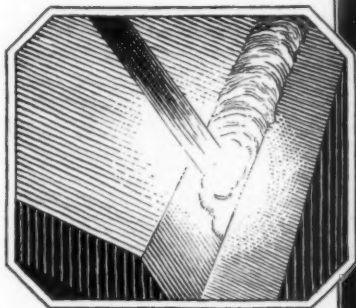
VILLAGE INDUSTRIES

AN ACCOUNT in *The Times*, of London, of a village industry, in which quite a number of disabled men are occupied making pottery, is part of a very wholesome quickening of country life, says *The Builder*, London. There is much scope for the development of rural prosperity in adding to agriculture other sources of livelihood, for which the Winter months provide plenty of time. No doubt in Spring and Summer the allotment or garden occupy a great part of the leisure after working hours, but even then, were the training forthcoming there is a good deal that could be done, and we hope that the efforts toward

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The seams are perfectly joined by the most modern method—electric-welding. The welding is done by pioneers who developed this process to a point of perfection. In our shops it's not how fast or how cheap per running foot of weld. We bevel the edges, then abutt and fuse them as one. There is a vast difference between such welding and hasty work over raw edges.

Heggie-Simplex seams test out to 98% of the strength of the original plate—a remarkable achievement that expresses the quality standard to which all Heggie-Simplex boilers are manufactured throughout.

Heggie-Simplex boilers save 25% to 45% of the fuel, reduce firings proportionately, burn any fuel smokelessly, save 33% of the floor space, flues clean from front, simpler and less expensive to install. Detailed specifications and catalog on request.

The Heggie-Simplex boiler combines in one portable, electric-welded steel unit all the recognized advantages of both firebox and return tubular, double pass boilers. It has four distinctive features of fundamental importance:

1. Extra large firebox and direct heating surface.
2. Secondary combustion chamber to provide ample room for complete combustion before entering flues.
3. "Rear-front-rear" passage for the gases.
4. A single, unimpeded, freely circulating body of water.

Made in a complete range of sizes for bungalows, residences and all larger installations.

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Buffalo	Columbus	Harrisburg
	Dallas	



Representatives in

Houston	Nashville	Rochester
Joliet	New Orleans	San Antonio
Kan. City, Mo.	New York	Schenectady
Little Rock	Okla. City	Shreveport
Lubbock	Omaha	Spartanburg
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	Raleigh	Toledo

Just look up "Heggie-Simplex Boiler Co." in the phone book in any of the above cities for representative's number and address

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establishing small workshops and home industries will extend themselves. In such a way, and retaining the local character which is, in other words, retaining the freedom for personal idiosyncrasy—a craftsmanship however humble at the start—may yet prove the way to a better tradition of craftsmanship, which should gradually supersede mechanical alternatives. It does not pay to make cheap goods on a small scale, nor is it possible for the village industry to sell on competitive terms with the mass producers, but the work itself being better, justifies a little more being paid for it, and if it led to the locality supplying its own wants in these directions, we should begin to see that variation of character, the stamp of locality, once more taking the place of the dullness of standardization.

LONDON PLANS \$20,000,000 PORT DEVELOPMENT

THE Port of London, continuing an elaborate plan for the development of its shipping facilities, is now preparing to spend an additional \$20,000,000 on harbor work, states *Engineering News Record*. The chief items will be: (1) Building a large floating landing stage for passengers at Tilbury adjoining the London, Midland & Scottish Railway station. There will be a depth of water alongside the stage of 35 ft. below low water at ordinary spring tide in order to allow the largest liners to come up to the stage. Bridges will connect this landing stage with the shore. (2) The construction of a 1,000-ft. entrance lock and a 1,000-ft. dry dock near the landing stage. (3) Bringing the West India docks up to greater efficiency by constructing a new entrance to allow all ships up to 12,000 tons to come into the dock, and the linking up of the three West India dock basins. The plans for this work are now ready and it is hoped to have it under way in the near future so that it can be finished in about four years' time.

GERMANY FOLLOWS AN AMERICAN EXAMPLE

RECENT despatches from Berlin state that wooden houses, modelled upon American patterns, are beginning to be popular in Berlin, states *Housing Betterment*. A whole section of wooden houses, a sight hitherto unknown in large German cities, is springing up on the extreme west end of the German metropolis. Heretofore the Germans have ridiculed the idea of wooden houses. Anything that did not last through several generations did not seem worth building to them. But today economic necessity has driven them to study the problem of cheaper construction and to their surprise they find that the wooden house has stood the test of time in America where there are houses still in existence dating back to Colonial days. They are, therefore, trying out the wooden house which they find much cheaper than the houses built of brick or stone.

It is also reported that the Germans are adopting the American form of two, three and four

room apartments designed along American lines with modern conveniences and that these are proving very popular.

A BELGIAN GARDEN VILLAGE

A GARDEN Village has been developed in the central industrial region of Belgium, writes *Housing Betterment*. At Leval-Trahegnies the commune has acquired a large tract of land near the station, on which the local Housing Society, with the usual government loan at 2%, is putting up workers' cottages around a large playground and park space, at one end of which stands the new school building designed by Paul Dubail, architect. The assembly rooms and the well equipped gymnasium and shower baths will be used after school hours by the members of the community.

TATTERSHALL AND ITS FIREPLACES

THE late Lord Curzon acquired Tattershall Castle in 1911 with the objects of restoring it and saving it for the nation, writes *The Architectural Review*, London, in a recent issue. At that time there were fears that the castle would be pulled down and removed to America. The four famous fireplaces, which are features of great archaeological interest in the castle, were reported to have been sold for removal to America, and they were actually taken from the building and stored in London. Correspondence appeared in *The Times*, of London, protesting against such acts of vandalism, and urging that efforts should be made to save the fireplaces and the castle for the nation. The interest of the National Trust and the public generally was aroused. On November 7, 1911, *The Times* announced that the castle, which had been so much before the public in connection with the removal of the famous fireplaces, had been saved from destruction, and that Lord Curzon, who had always been warmly interested in the preservation of archaeological remains, and who had intervened at the last moment to rescue the castle from the risks of further vandalism or demolition, was the purchaser.

The historic fireplaces were restored, and on June 5, 1912, Lord Curzon visited Tattershall and received a public welcome. On that occasion he outlined his plans for restoring the castle, and recalled the circumstances under which he had recovered the ancient building seven months before. He only had less than twenty-four hours to do it, he said. He came down there by the morning train, he saw the place, and by five o'clock that afternoon he sent a telegram to say that he would buy it to recover it for the nation.

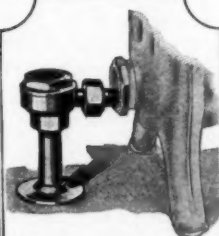
Tattershall Castle, though it consists of little more than the Keep Tower, is one of the finest pieces of mediæval brickwork in England. It was built by Ralph, third Baron Cromwell, Lord High Treasurer to Henry VI, and is quadrangular in shape, with octagonal turrets at the corners. The tower is 112 ft. in height and in parts the walls are 16 ft thick.



The Parthenon at Athens (called by many the most beautiful building in the world, due to the sheer magic of its simplicity) as it appeared from 400 B. C. until its partial destruction by Turks in 1687.

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Recognizing that Simplicity in a heating system is of paramount importance, the Dunham System of Heating has been designed to offer the greatest amount of efficiency with the utmost simplicity of both construction and operation.

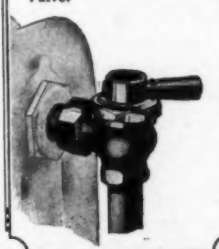


The Dunham Thermostatic Radiator Trap

The silent, efficient watchdog of the coal pile.

The Dunham Packless Radiator Valve

A fitting companion to the Dunham Trap is the Dunham Packless Radiator Valve.



THE Dunham Heating System is so simple in operation that it may be handled by inexperienced employes in commercial, industrial and apartment buildings, or by women and children in residences.

Any radiator in a Dunham System may be turned off when not required. Radiators in rooms not in use may be shut off from the rest of the system. The heat of those in service may be controlled in the room and without visiting the boiler room.

In a Dunham System there are no complicated and delicate parts to get out of order or to require constant attention. There are no trouble-making air valves.

Simplicity, then, is as outstanding a characteristic of a Dunham System as is the satisfaction its installation affords.

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ARTISTS TO FINGERPRINT PICTURES

ARTISTS hereafter will be able to register their pictures so that proof of their authenticity may always be available. With the object of curbing the alleged vast trade in spurious pictures, the Minister of Fine Arts, Paris, is organizing an office at which artists may register their works, deposit photographs of them, and, as an additional precaution, put their fingerprints on the back of them.

THE HOUSING WORK OF THE MINES OF LENS

THIS great mining company of northern France has produced housing for its employees on a scale comparable to the work of the Nord Railroad, states a recent issue of *Housing Betterment*, having built 12,000 dwellings since the war for a population of about 50,000.

The company has a housing and social service experience of fifty years' standing, as it has always had to provide homes for about two-thirds of its employees, on account of the scattered location of its mines. The war wiped out its settlements. In many cases, however, house foundations remained and enough of streets and canalizations so that there was economy in using them. To that extent layouts have not been modernized. There has been, on the other hand, a considerable increase in the working force, and consequently in the number of houses, made necessary by the application of the eight-hour law since the war.

Single-family houses, with considerable space between, are the rule. Each house has a good sized garden, and every aid is afforded by the company to insure the best use being made of it. The principal shift being from 6 A. M. to 2 P. M., the men have ample daylight leisure for their gardening. The typical house has three bedrooms, a large kitchen-living room, a small laundry—like the English scullery—and a toilet. There are running water and electric lights. Some houses for large families have one or two additional rooms. The material is local brick of various shades, sometimes conglomerate made from the war ruins, with roofs of local tile. There are forty different house designs. Cellars and attics are general, and suitable outbuildings for poultry or rabbits are provided.

A GARDEN VILLAGE FOR ZURICH, SWITZERLAND

A CO-OPERATIVE society founded in 1924 has sponsored the building of a Garden Village in Zurich to help its members, most of whom have several children, and to secure better, more ample and more healthy homes at low rentals. They expect to build 200 single family houses in two types—one with four rooms and one with five in groups of two and four houses each. Each house will have 1,800 to 2,700 square feet of garden space or yard.

At the entrance to the village a community center will be built which will include a library and lecture hall, the schoolhouse and two large blocks of shops. It is expected that the project will be completed by the Summer of 1926.

PERSONALS

Raymond Miles Stowell, architect, announces the opening of his office in Room 62, Wauban Building, 184 Boylston Street, Boston, Mass.

William Sevie, architect, announces the removal of his offices to 1829 Blue Island Avenue, Chicago, Ill.

Albert B. Groves, architect, has moved his office from the Stock Exchange Building to Suite 2021, Railway Exchange Building, Sixth and Locust Streets, St. Louis, Mo.

Edward A. Wettengel, architect and engineer, announces the removal of his office from 578 Pierce Avenue to 116 South Pierce Avenue, Appleton, Wis.

Robert B. Crowe, architect, has opened an office for the general practice of architecture in Suites 2 and 3, Plaza Building, Tampa, Fla. Manufacturers' catalogs and samples are desired.

Franklin Cox Stanton, architect, has opened an office for the general practice of architecture in the Capitol National Bank Building, Olympia, Wash., where he would be glad to receive manufacturers' catalogs and samples.

Leo M. Bauer, architect, has moved his office from 904 Marquette Building to 535-36 Detroit Free Press Building, Detroit, Mich., where he would be pleased to receive manufacturers' catalogs and samples.

Andrew J. Sauer & Company, architects and engineers, announce the removal of their offices from the Denckla Building to the Schaff Building, Northwest corner Fifteenth and Race Streets, Philadelphia, Pa.

John R. Fugard announces the retirement of George A. Knapp from the firm of Fugard & Knapp, architects, and the association of F. J. Thielbar, forming the firm of Thielbar & Fugard, architects, 219 East Superior Street, Chicago, Ill.

Joseph P. Jogerst and Alfred J. Seeler announce the formation of the firm of Jogerst & Seeler, architects, with offices at 1916-17 Ford Building, Detroit, Mich., where they are now established for the general practice of architecture.

Hubert Marion Garriott and William Gregory Rammel have severed connections with the firms Allen & Garriott, Indianapolis, and Allen, Garriott & Rammel, Logansport, Ind., and will continue the practice of architecture under the firm name of Garriott & Rammel, architects and engineers, with new offices at 1151-52 Consolidated Building, Indianapolis, and 4 Masonic Building, Logansport, Ind. New catalogs and samples are desired in both offices.

The PUBLISHERS' PAGE

THE article by Winsor Soule, of Santa Barbara, Calif., discussing the effects of the earthquake in that city, presented in our issue of October 5, has received wide and favorable comment.

The National Lumber Manufacturers Association, in its "Information Service" for October, warmly commends Mr. Soule's article and presents to its members a resume so very complete as to be practically a reprint.

It is gratifying to receive such irrefutable evidence that this journal is giving good service to such an extended class of readers. To repeat what we said on this page in answer to the question, "Who reads an architectural magazine?" Everybody will if its pages are worth reading.

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The competition to select an architect for the Washington, D. C., Roosevelt Memorial was decided October 7 in favor of the Office of John Russell Pope, architects, who, it will be recalled, won the competition for the Roosevelt Memorial in New York City.

We were hoping to be able to present the Washington prize winning design in this issue, but learning from the Roosevelt Commission that no publication of the design before it had been approved by Congress would meet the Commission's approval, we at once abandoned the idea. While it might have been possible to have secured photographs of the designs of other contestants, it was believed by the publishers of this journal that the best interests of all concerned in this competition would be served by abstaining from any presentation until the prize winning design is released by the Commission on its approval by Congress.

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The responses to our announcement of the Golden Anniversary Issue have exceeded expectations. Replies indicate the widest interest, which, to men who want to keep abreast of the work of the profession, is of course to be expected.

The Vice President of the West Virginia Society of Architects, Levi J. Dean, writes:

"I accept your proposition and am confident that it will mean very much to me as an architect. I want to thank you for sending out this card and circular as the contents of the circular entitled 'The Golden Age of Architecture' indicates that your anniversary issue will cover a broad field and no doubt be helpful to every architect who desires to obtain a correct history of the past fifty years. Such knowledge will undoubtedly enable the architect who possesses it to be more practical and efficient in his future practice."

Mr. Dean's view of this issue is shared by many other correspondents. This Golden Anniversary

Issue will be only second in importance as a work of standard reference, to the Georgian Period, issued by this journal more than thirty years ago and now, in its original form practically unobtainable. It is, as our Golden Anniversary Issue will be, a standard work of reference.

* * *

The new building of the *Journal* newspaper at Milwaukee, Wis., designed and erected by Frank D. Chase, Inc., engineers and architects, will be featured both in the general section and in the department of Engineering and Construction in the issue of November 20. The problems surrounding the planning of this building are of unusual interest, and will be set forth in the articles accompanying the illustrations. Typical of the rapid growth of our Western cities, the *Journal* building had, at six different periods since its foundation but forty-two years ago, outgrown its premises. It became necessary not only to design a building to meet the present requirements, but also to plan for future extension both laterally and vertically. The mechanical processes by means of which this result was achieved, are set forth in the article in our Engineering and Construction section.

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Issue of November 20 will contain the second installment of Professor Ralph Adams Cram's series on Spanish Gothic. It will treat of Barcelona Cathedral, and will be illustrated by some specially prepared photographs that present this magnificent structure in a decidedly artistic manner.

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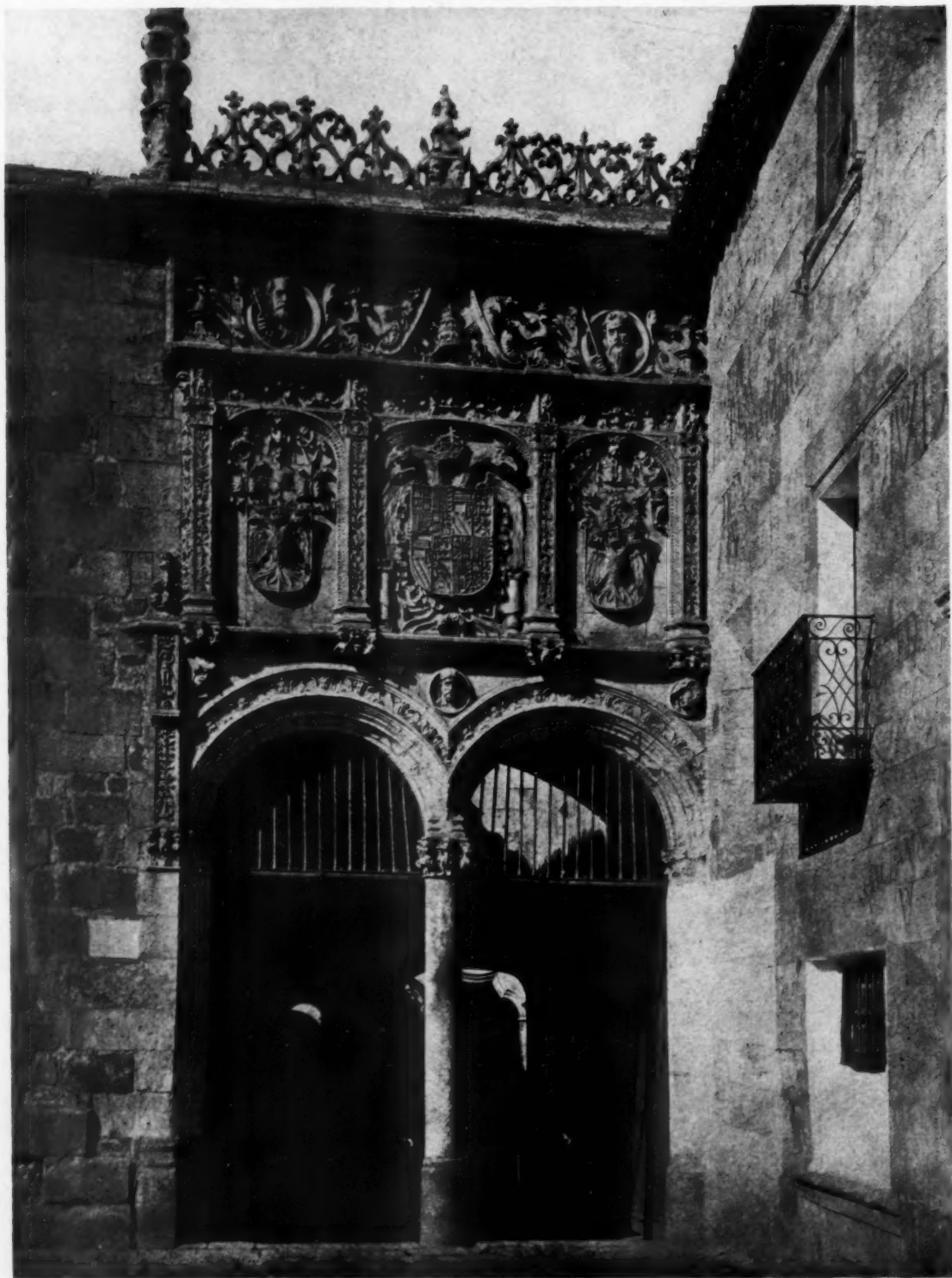
A very important country house from the office of the late Donn Barber, will be a feature of an early issue and this also will be shown in two departments of this journal, the general architectural section and the Department of Interior Architecture. Some unusual features of planning and design are present in this example from Mr. Barber's office, and the series of plates illustrating the interior are marked by that same careful consideration that was always shown in Mr. Barber's work.

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The Pacific Gas and Electric Building, Bakewell and Brown, architects, a fine example of the latest type of high building now being erected on the Pacific Coast, will soon appear.

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Two Y. M. C. A. buildings, one in Brooklyn, N. Y., and another in Jersey City, by John F. Jackson, architect, are also among important subjects that will be fully illustrated and described.



ENTRANCE TO A SCHOOL BUILDING, SALAMANCA
DETAILS OF SPANISH ARCHITECTURE

THE AMERICAN ARCHITECT