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The Strike Epidemic Among the Carpenters.

What we believe will prove the last organized attempt to establish unions in the carpenter trade for many years has been made and has failed. An organization with headquarters in Philadelphia, and a head mouthpiece called grand secretary or something, named McGuire, has agitated the amalgamation of all existing unions among carpenters. True, there never has been a basis upon which effective work in this line could be done, owing to the fact that good carpenters could remain employed at good wages without the questionable aid of a union, and would, when left to their voluntary action, refuse to join with the unskilled and unreliable in the trade, with the prospect of a strike and being needlessly thrown out of work as a result. This "secretary," self-constituted champion of downtrodden labor, with too small a knowledge of the use of tools to lay a joist, or with too large an estimate of his ability as an agitator to be willing to work for a living, has, through his satellites in the different cities of the country, succeeded in inaugurating strikes that have done an enormous amount of damage to the journeymen carpenters, not only among those who joined the unions (for the suppression of honest labor), but to all others as well. We need not follow the history of this great "conspiracy" to its conclusion. The effect has been most disastrous to the journeymen carpenters, but has fallen heaviest upon those who, listening to the specious arguments of the agitator, mistook a union in imbecility and crime for a union in honorable fraternity. Chicago was selected as the seat of war, the theory being that if made a "union city," victory elsewhere would be easy. It is true that carpenters were working eight hours and for as good wages as anywhere in the country; the men were satisfied, as the approaching World's Fair was bringing a constantly increasing demand for labor; and, on the other hand, thousands of carpenters in other cities and towns were unemployed, but the head agitator laid the plan, his satellites commenced to act in concert, and a strike was directed. The result was, the union met an opposition that could not be broken, and after two months spent in idleness they find the places they left filled with strangers who are guaranteed work for at least a year to come. Over 2,000 men have applied for work at the association headquarters alone, and so effective has been its liberal advertising for men that a contractor who lost twenty-eight men through discharging a foreman at 4 o'clock in the afternoon, had filled their places before 6 o'clock. Meanwhile, strikes were inaugurated among the carpenters in Detroit, Louisville, Denver, Omaha, San Francisco, Wheeling, Kansas City, Pittsburgh, Rochester, and other cities, but with the same result as that in Chicago. In each city the main demand was for the recognition of the union, and in each case the contractors have refused to entertain any proposition from such bodies, declaring that it was their privilege to retain control of their business, and that the only parties they could treat with were the men employed by each individual. If this movement had originated from any injustice or from any real cause that called for remedy, it might have been successful, but being built upon the personal agitation of those who sought to obtain money from soft positions as strike managers or strike missionaries, rather than by hard work, it has utterly failed. Men who believed that in union

was strength, and were willing to aid in the support of a beneficial and fraternal organization, have found that membership in those at present established is dangerous to their interests, and brings disaster upon them without remedy. It is hoped that the lesson has this time been well learned. That the leaders of unions at the present day give little consideration to the real interests of the workingman, and that from the lowest to the highest of those who stir up discontent and get them to strike, do so more to help themselves personally, and earn salaries as union officials, than for any desire to advance the interests of the workman.

The Prosecution
of Striking
Carpenters in
Chicago.

The firm stand taken by the Carpenters' and Builders' Association of Chicago has been noted elsewhere, but one phase of their action has been a decided advance upon any of the methods before employed in the work of sustaining uninterrupted liberty of action, and this is in the guaranteeing of work to all employed who do not belong to unions and protecting them from assault. After the first surprise in the union occasioned by the facility with which the places of those who refused to work were filled, the striking carpenters became desperate and organized a picked body of men which they formed into a committee, instructed to patrol the city and compel all men found working to join the union, or to club them from the buildings. The result was that men were set upon while at work and a large number seriously injured. This committee, composed of the worst element in the union, roamed the city, as bloodthirsty and as savage as the Indians of the plains. Like the Indians, they avoided places where the men made a showing of strength and determination and attacked only when they largely outnumbered the workmen. And this is called a country of universal freedom and law. The Indian commits a similar outrage and he is pursued and killed, and in the center of civilization these worse than Indians can hardly be fined when brought to what is called justice. The Carpenters' Association have, however, retained the best criminal lawyers and detectives and are giving their entire attention to the prosecution of every case of intimidation that is brought to their notice. The moral effect has been greater than was hoped. It has shown that workmen are going to be protected and that it is dangerous to transgress the laws.

The Fifty-fifth
Annual Meeting
of the Royal
Institute.

The fifty-fifth annual general meeting of the Royal Institute of British Architects was held in London, May 5. For the first time, the thirty-four members of the council include members (the presidents) of the allied societies in Bristol, Leicester, Liverpool, Manchester, Newcastle, Nottingham and Sheffield. The Birmingham Architectural Association were admitted to the alliance March 9. The number of fellows is 519; associates, 768, and honorable associates, 80. It is noteworthy, as an indication of the strictness of the examination to which applicants for membership are subjected, that only 77 out of 115 candidates for the grade of fellow passed, and for the grade of associate, 54 out of 93 candidates passed. As no essays for the silver medal and 25 guineas offered last year on the subject of "Fenestration—Its Treatment in Secular Buildings of Various Styles," were submitted last year, a similar subject has been set for the current year. During the year, 208 volumes and 223 pamphlets were added to the library, and the attendance of readers num-

bered 1,039. At the twenty-eight meetings during the year, thirteen papers were read by members. The bill for the registration of architects, which we have noted in a previous number, was to have been up for a second reading on May 14, but the protest of the Institute seems to have been effectual, though the English journals of late date are singularly silent on the subject. When we look at the thoroughness of the work done by the Royal Institute and the allied societies in Great Britain, and the too indifferent attitude of American architects in association affairs, we are inclined to feel that the laxity of practice and ambiguous standing of architecture as a profession is largely due to the professors themselves; for there they are trammelled by custom long established, and by precedent, while with us any good movement can be carried through if the proper public sentiment can be engendered in its favor. The American Institute of Architects, and its allied state and local chapters, is organized on a basis as strong and perfect as the republic itself, and the work the Royal Institute has labored fifty years to accomplish in the line of legal recognition as a profession, by concentrated and persistent effort, could be accomplished in this country in five. To remain inactive in this matter is to acknowledge to the world that, in America, architecture is not a profession, but a trade.

Death of
John Carrick,
City Architect
of Glasgow.

In the death of John Carrick, city architect of Glasgow, the profession loses one of its most valued members. Mr. Carrick was one of the founders of the Glasgow Institute, and in his long career of over thirty years as city architect he has practically built the Glasgow of today. All the public improvements, in the way of widening streets, the enactment of proper building laws and the general work of directing the architectural and esthetical beauty of the city, have been made under his suggestion or direction. In a meeting of the Glasgow Institute a resolution was unanimously adopted, a copy of which was sent to his family, to place upon record their deep sense of the loss sustained the city, the profession and the Institute in his death. His public services cannot be overestimated and his fame was not confined to local limits, but in this country Glasgow was referred to as a city whose architecture was watched over by an architect eminently qualified by training and temperament for the post he filled with such marked distinction and ability.

The Workmen's
Side of the
Strike
Question.

There has recently been published, says the *London Builder*, a little pamphlet called "On Principle' Strikes," by Mr. J. S. Ransome, containing four sketches, which originally appeared in the *Globe*. The author does not improve his chance of success by a title which at first sight puzzles rather than enlightens the reader. But the publication is, nevertheless, apposite; its object is "to point out how little the real interests of the workingman are studied by the leaders of the present day unions." In order to do this, sketches are given of typical persons engaged in strikes. The third sketch is that of "The Shop Lawyer"; in other words, the talking leader, who gradually stirs up discontent, and then gets the men to come out on strike. In this, as in the other sketches, there is a good deal of truth; but, like many sketches with the brush, these with the pen are somewhat overcolored. Yet this is in many ways just the kind of literature to bring home some truths to the mind of the workingman.

A Great Architectural Problem.*

BY JOHN W. ROOT, ARCHITECT.

LIKE all forms of civilization architectural development has for centuries moved from homogeneity to heterogeneity. As human needs become more complex and as human industries multiply, human habitations take upon themselves forms continually more intricate. But at no time has this development been so rapid as during the latter part of this century. The age of steam has witnessed a material revolution a thousand times more significant and radical than had occurred during all the preceding centuries. In essence the requirements of men, as expressed in their architecture, had remained comparatively simple up to the end of the eighteenth century, and even to the middle of this. The fourteenth century dwelling and

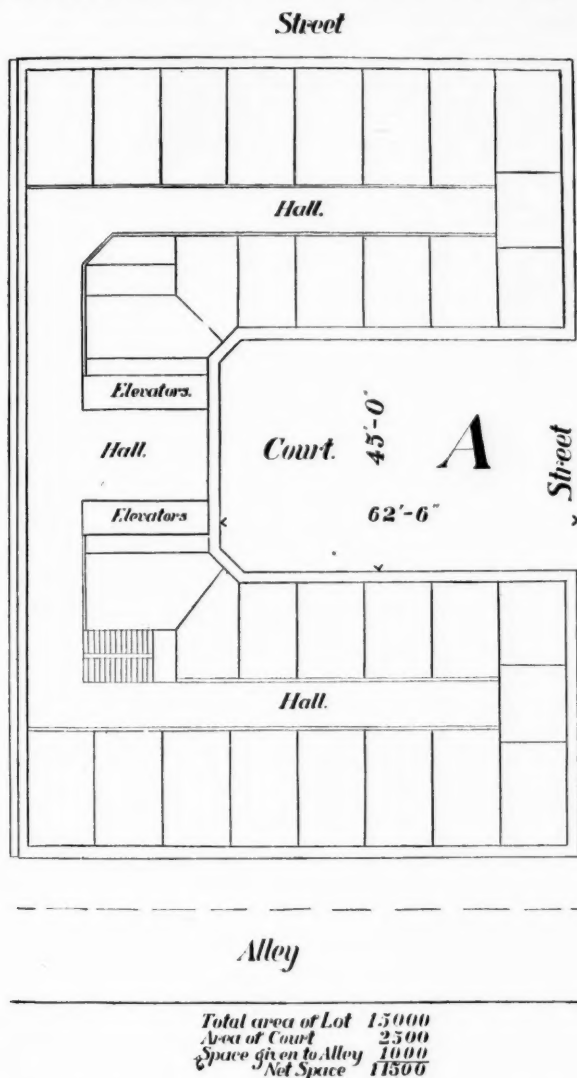
view unnecessary, or the necessity demanding such structures being comparatively slight, they became in their more enduring forms monumental in the expression of simple ideas, as places for worship and for defense.

Another cause for this obvious and simple expression lay in the fact that the architect was then further than now removed from the mass of people, who, indeed, were ignorant of many of their own physical necessities, as well as of their moral aspirations. He was, therefore, left free to work out his problem undiverted by the thousand considerations begotten of individual caprice.

It was the Renaissance, with its wonderfully vital and complex thought, which first began in a marked way to impress upon architecture the stamp of individual whim or desire; and it is the earlier monuments of the Renaissance, built by men who were still imbued with something of the more primitive and simpler spirit, that remain to us most significant and interesting. For so rapid was the growth of ideas in the Renaissance that even the greatest among the architects of later periods were able only partially to give these ideas adequate realization in architectural form.

In the expression of this straightforwardness of intention, this unity of idea, characteristic of earlier architecture, the Parthenon, the Erechtheum, even the great medieval cathedrals like Chartres and Amiens, are the embodiment of ideas in their essence as direct as any picture or statue can be.

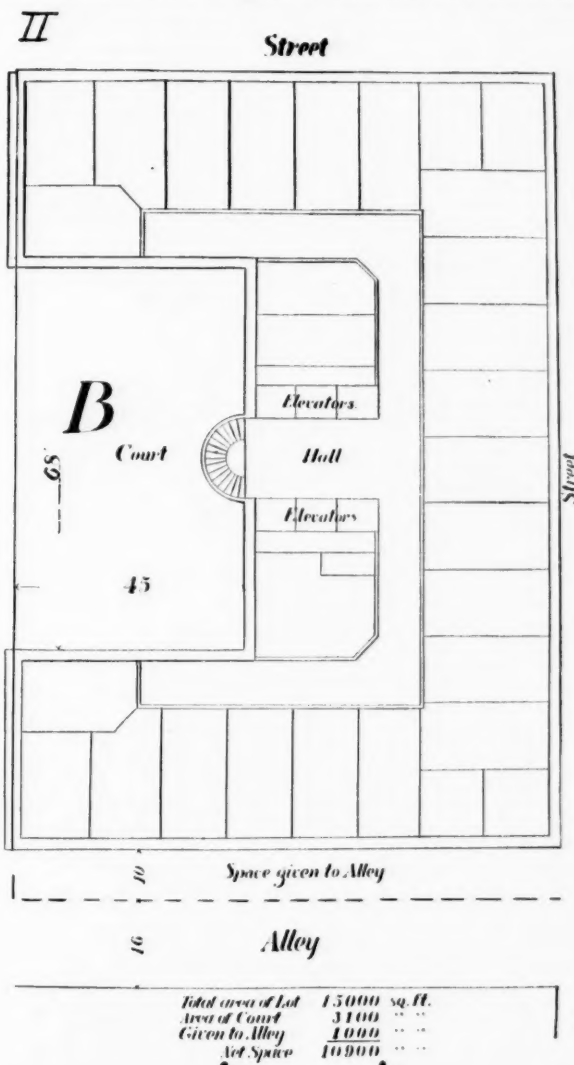
But with the enormous growth in wealth and civilization of the northern nations, as well as those in the South since the Renaissance, especially since the beginning of this century, the change has been beyond the wildest flight of the imagination. The luxuries most rare to even great kings like Louis XIV are now the necessities of life to the day laborer; and following every modern necessity is a vast nebulous train of luxuries, whose end may not be seen,



shop combined was, in its essential arrangement, a very simple and obvious affair, whose type had existed in substance for centuries; and the combined shop and dwelling of the last century was scarcely more complex. In the great monuments of early Egypt, of Greece and even of medieval Europe, as well as in such smaller buildings as have survived to this day, very few and very simple ideas dominated the whole structure as well as its art expression. The architect was not distracted, therefore, by antagonistic elements in his problem, but moved straight forward toward a simple and definite result. If called upon to design a temple, he aimed only to produce an edifice which should be a unit within itself, and at the same time expressive of that religious sentiment which was predominant at the time, and whose characteristics were for this reason instinctively grasped by him. If the problem was of some other character it was nearly always marked by equal simplicity of purpose. Even the greatest of castles and palaces in their most complex conditions rarely became more than well-regulated assemblies of simple structures, each one maintaining its own individuality.

Not only were early buildings comparatively simple because of the simple needs of the inhabitants, but also because of the fact that early architecture was created in climates where an outdoor life was so largely possible and even desirable, that the dwelling, shop or temple itself, being to a large degree unnecessary from a material point of view, took upon itself a much less complex condition than if the climate had been more austere. Thus, being from one point of

*Paper read before the architectural class of the Art Institute, Chicago. While largely alphabetical, the paper contains much of interest to the architectural reader, being especially valuable for its consecutive review of modern architectural form and practice.



all in their turn to become fixed and solid as necessities. These all demand accommodation and expression in modern architecture, and architecture must meet the demand.

As yet sufficient time has not passed for this expression to be fully wrought out. The age of steam, of electricity, of gas, of plumbing and sanitation, is new. What its impress will be upon man himself no one will venture to prophesy, and this being true no man may foresee how architecture will adjust itself to these changed conditions. Especially is the forecast difficult when we reflect that not only preëxisting types of buildings have been revolutionized by modern needs, but new types have been created adapted solely to the present, and of which twenty years ago no man could

have dreamed. Among these I mention the vast edifices which have lifted themselves in New York, Boston, Chicago and other cities, until they tower heavenward nine, ten, twelve and sixteen stories, containing sometimes three or four thousand people upon whom depend the support of eight or ten thousand souls. These buildings, the result of commercial conditions without precedent, are new in every essential element.

Looking at the problems presented by these buildings, as well as by many others of a different type in a lesser degree, we may certainly guess that all preëxisting architectural forms are inadequate for their solution, and that no logical combination of those forms can be made efficient without changes so great as to be practically destructive.

We must grant that, to be true, architecture must normally express the conditions of life about and within it, not in a fragmentary and spasmodic way, but in the mass and structure; the life of the building, in large and comprehensive type. As yet the search after a national or new architectural style is absolutely useless for this purpose. Architectural styles, national or new, were never discovered by human prospectors, however eagerly they have searched. Styles are found truly at the appointed time, but solely by those who, with intelligence and soberness, are working out their ends by the best means at hand, and with scarce a thought of the coming new or national style.

Architecture is, like all other art, born of its age and environment. So the new type will be found by us, if we do find it, through the frankest possible acceptance of every requirement of modern life in all of its conditions, without regret for the past or idle for a future and more fortunate day, this acceptance being accompanied by the intelligent and sympathetic study of the past in the spirit of aspiring emulation, not servile imitation. If the new art is to come, I believe it will be a national and steady growth from practical conditions outward and upward toward a more or less spiritual expression, and that no man has the right to borrow from another age an architectural idea evolved from the life of that age, unless it fits our life as normally and fully as it fitted the other. I say practical conditions, and this is fully meant—practical conditions without qualification or abridgment.

Whenever in the past such a full acceptance occurred, and a building was erected in the effort frankly to express the conditions thus accepted, art has been willing and ready to consecrate the effort. But, on the contrary, whenever art has been invoked to abridge in architecture one of those normal conditions, she has been distant and cold.

The ethical proposition is true that the presence of art may be most accurately known in the attitude of the workman as well as in the nobleness of his aim. And yet philosophers and critics have striven to find the path by which artists reached the exalted heights of inspiration, by which genius conceived the immortal monuments of antiquity. The path has not been found by them. But in studying our own age, I believe some guess may be made as to the road by which our own highest level may be reached.

We live in an age beyond all others reasonable. The ethical and art status apparently reached by the Greeks and Venetians through processes almost intuitive, must be reached by us, if at all, by processes entirely rational.

If the problem before us were the design of a temple to Jupiter, with its simple portico and cella, the whole attitude of the mind would be different from that which is demanded in the effort to design in homogeneous and expressive form a great and complex office building of twelve stories, constructed of steel and terra-cotta. Here the pure art expression can, perhaps, never be so high as in the simpler problem for reasons inherent in the problem; but if it is to be truly an art expression worth considering, it will be reached at the point where intellectual action, intensely concentrated upon vital conditions about and within us, passes into an unconscious spiritual clairvoyance. Here is the path, the end of which, indeed, may not be reached by us, but the effort to reach which will be to move in the right direction.

Criticisms upon art are apt to be unsatisfactory and are often unfruitful, and such I do not propose to essay. It is rather my purpose to enumerate some of the structural and commercial conditions which lie at the beginning of a typical architectural problem of the present, and to indicate something of the methods by which they are met and are given characteristic architectural expression.

The subject, then, of this paper, to which the foregoing is a preface, is some of the processes by which a large office building in Chicago is evolved, from the time when the site is determined to the time of its occupancy. The subject is chosen because no class of buildings are more expressive of modern life in its complexity, its luxury, its intense vitality. The purely artistic side of the question will not be enlarged upon, because, as I have said, it is the practical and even commercial sides which at this moment need special attention, not so much for themselves, but as factors, and most important factors, in the evolution of every aspect of a great problem; and which occupy a much greater and more significant relation to the ultimate art expression than has generally been conceded to them.

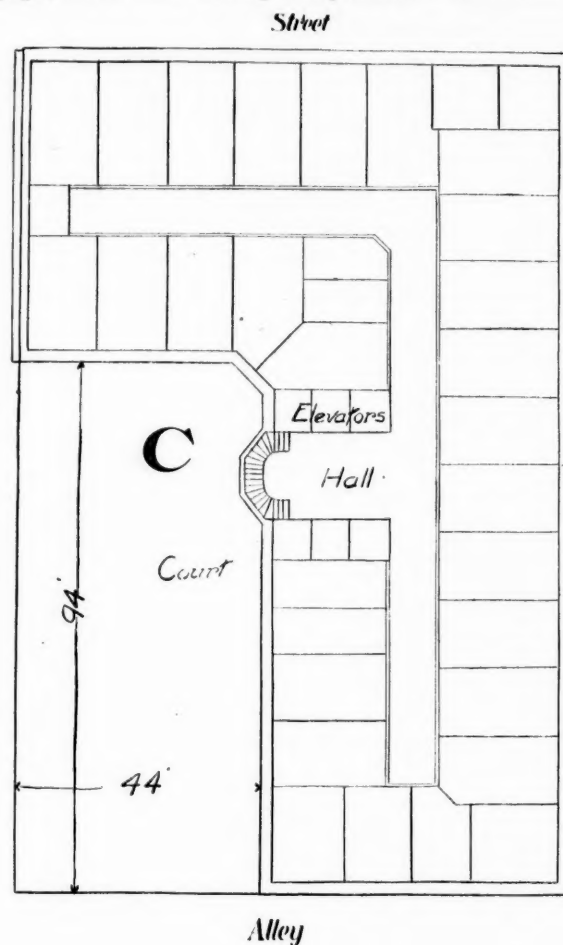
How much "per cent" has always been considered foreign to art, and generally it is. Yet, curiously enough, it may sometimes guide art, if not positively foster it. Art has never grown vitally without some sort of check, whether in the limitation of the age, the narrow yet intense idea which was the inspiration of the epoch, the specialized occupations of the moment, or some other equally valid cause. And in this age the question, purely commercial, of "per cent" often intrudes itself at a time when thoughtfulness is about to give way to mere lavishness, and asks of the mind the pertinent question "why?" and in the answer art, if enriched by the splendor of material, is not

concluded by it alone, but by the more valuable thing, expenditure of thought.

At the moment when an architect is intrusted with work to be executed by him "regardless of expense," let him beware that he lose not the thoughtful temperateness which should underlie even the most splendid effort. But when a certain income must be derived by revenue from the building designed, every question must be carefully weighed, investigated in every possible light, and the result is apt to be interesting, at least as expressive of thought, and will, if solved with truth and imagination, be also interesting from an art standpoint, as art in architecture is merely the expression in solid material that someone has thought for our comfort and delight.

Let us begin, then, at the moment when the questions involved in such a building arise and are propounded to the architect for solution.

Let us suppose that in the business center of this city a piece of ground has been purchased, lying upon the corner of two prominent streets, the dimensions of the ground being 150 feet north and south, 100 feet east and west, with a 16-foot alley on the south. It is surrounded by buildings averaging in height nine stories, and the average width of the streets on which it fronts is 70 feet, being in one case 66 and in the other 80. Of course, the first radical question to suggest itself is that of light. And this will at once dictate certain general and entirely preliminary conditions of the plan upon the ground. Experience has demonstrated that all spaces within the inclosure of four walls which are not well lighted by sunshine, or at least direct daylight, are in office buildings non-productive. The elementary



Total area of Lot	15000
Area of Court	4100
Net Space	10900

question, therefore, is how to so arrange the building upon its lot that every foot within it shall be perfectly lighted, and all spaces which would be dark thrown out. To ascertain this it is necessary to know by experiment to what depth from the front wall daylight will reach, upon the average, in a story of convenient height, and giving to the space to be lighted the largest possible windows. This has been found to be in Chicago not more than twenty-four feet, assuming the height of the story to be about eleven, and the window to be placed close to the ceiling, the average street width being assumed. This fact will, of course, dictate in general our depth of offices.

Taking the lot of 150 by 100 feet, as given us, the first method or general disposition or plan which suggests itself will perhaps be a central court. It is found at once that this plan is not feasible, for there is not sufficient width in the lot to give light to the interior tier of offices opening upon this court.

A second plan would be an open court facing the east. This has manifest advantages, as will be seen by this diagram plan. (Diagram A.) A large amount of office space is here obtained, all of which would

seem to be well lighted, and all of which would have open aspects to the street. An objection, however, to this plan, consists of the fact that the south wing of the building would constantly throw its shadow across the narrow court whose smallest dimension is north and south, whereas the distance north and south should be its greatest dimension to fully admit sunshine. Another criticism is that at a time when light is most valuable and most difficult to obtain — late in the afternoon — the court is thrown into shadow by the main portion of the building. Still another objection would lie in the fact that the court being so

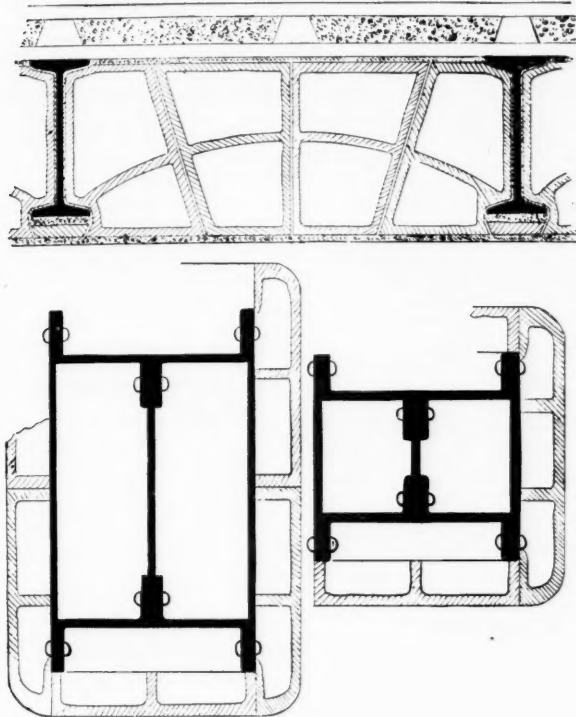


FIG. 1.

essentially a part of the street façades, it would scarcely be possible to face its walls with a material which would brilliantly reflect the light, as such a treatment would cut the main façade into three pieces and destroy all architectural unity of expression.

The next idea would be to place the court within the building and to the west of it, as illustrated in plan B. Here only one tier of offices is placed to the north and south of the court, and the plan seems to present many advantages. It is necessary, however, in order to get even moderately good light in the south tier of offices, that the width of the alley should be considerably increased. Let us do this by ten feet, using the widened alley for light. The court in the center, of a very good size, with its longer axis running north and south, thus freely admitting sunshine; it is, moreover, in such position that it may be readily faced with glazed and light colored material, and generally presents a very convenient and serviceable arrangement.

The criticism upon this plan would be that if tall buildings exist on the south of it, the alley, even when widened, will not be wide enough to give perfect light to the south offices in the first five or six stories. This is a very grave objection, which would also be accentuated by the fact that so large a per cent of the offices have an alley frontage, which is nearly always objectionable.

Suppose, therefore, we take the offices which lie immediately south of the court and remove them to the north of the court, thus making the plan C. Here, as you see, the court is open to the south toward the alley, and has the great advantage of the long north and south axis, which is 26 feet longer than the length of court in plan B. In this case scarcely an office is solely dependent upon the alley for light; nearly everyone faces the principal streets, or, what has proven to be in Chicago quite as desirable, the open court. This court may be constructed as lightly as is consistent with strength; it may be faced with any brilliant reflecting material; possesses all the attractions of the inclosed court of plan B, and is superior for service. And although the net space included within the building seems somewhat less than in B it is considerably more available and therefore would produce considerably more revenue. Remember also that this slight percentage of net space in favor of B is apparent only, for in B there is somewhat larger proportion of walls which will more than counterbalance this difference. The general plan, marked C, is therefore taken.

The next general question is the number of stories. And in Chicago, at present, the difficulty is not to determine how few, but how many. Nothing to a stranger seems more irrational than the present rage in Chicago for high buildings; but the reasons for it are obvious and the fact apparently fairly well established, so that we must accept it. Let us assume that twelve stories are determined upon.

The next step to take is to approximate the cost of the building; a question of decidedly keen interest, and one in which it would not be generally conceded that the architect puts his best foot forward. Here experience has shown that the cost may be obtained within a

very small fraction by ascertaining the gross cubic contents of the building from the bottom of the foundations to the top of the roof and inclusive, also, of all of the space inclosed within walls in the shape of areas, etc. Dependent upon the elaborateness of finish, the cost per cubic foot of such a building will vary from 25 to 40 cents, although in eastern cities the latter figure is often greatly exceeded. Thus, a building of this sort, containing 2,500,000 cubic feet, will cost, according to its elaboration, from \$625,000 to \$1,000,000, the average being about \$750,000.

The general plan being now determined, and the question of cost discussed, we proceed to other points relating more in detail to the arrangement of the building, and which still have especially to do with the question of revenue.

The following is a partial statement of these points:

1. *Height of stories.*—Ideally, the stories of such a building should be highest at the bottom, for here the light is least adequate. A system of graded heights, greatest at the ground and diminishing toward the top would be best. Motives of economy, however, tend to prevent this and the arrangement generally found most satisfactory is to have at the bottom a story level with the street and as high as consistent with easy access by stairs to a higher story immediately above it, thus obtaining revenue practically from two "first" stories. The third story is somewhat higher than those above, because it is apt, like the second, to be occupied by large corporations, or other tenants requiring considerable space in one room. Above this there is generally no cause for stories over eleven feet high.

2. *Main entrance.*—This is to be as wide and convenient as possible, leading in the most obvious way to the elevators and provided in a building of this size with at least four pairs of easily moving doors.

A very important feature of the entrance is the storm vestibule, which is always necessary and rarely adequately provided. These vestibules should be sufficiently deep to allow the two sets of storm doors to move freely past each other, with considerable space between. Immediately inside of this vestibule one or more wide flights of stairs lead to the second or banking story.

3. *Elevators.*—The number of elevators is very important, as are their size and shape. The number is proportionate to the cubic contents of the building, with an added percentage if the building be tall; for the length of time consumed by an elevator car in making a "round trip" depends as much on the number of stoppages for receiving and discharging passengers as on the speed with which it runs. In size the elevator car may not be much greater than 40 square feet, in any event, two smaller cars being better than one of larger size than this. The shape should be wide and shallow, with the door as wide as possible.

4. Ample space must be left for all forms of supply and waste pipes to run up through the building, as well as for the elevator cylinders, and for ventilation ducts. These shafts can scarcely be too large.

5. On each story convenient and accessible toilet rooms must be provided, and in two stories these rooms should have large ante-rooms with barber shops and attendants.

6. Heavy burglar and fireproof vaults will be needed in a few places, especially in the first and second stories, though, generally

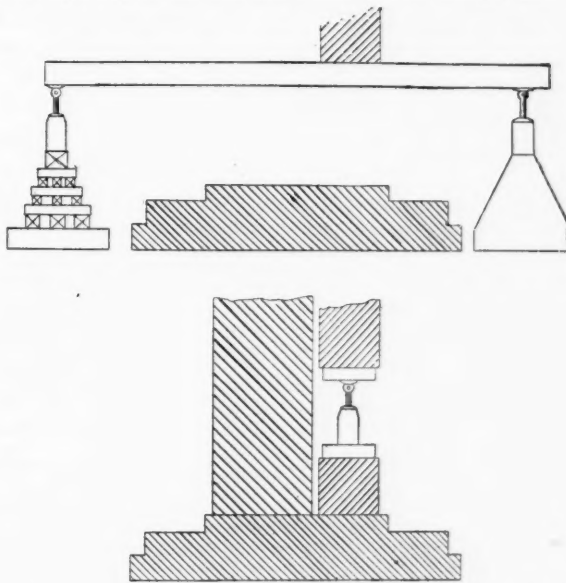


FIG. 2.

speaking, the building being non-combustible, vaults of hollow tile may be placed anywhere tenants may wish.

7. The utmost space possible must be obtained in the basement, not only for renting, but for boilers and all forms of machinery.

8. All plumbing and steam fixtures must be so placed that they are easily accessible, and at the same time do not deface the building. The same is true of all telephone and electric wires, all tubes for pneumatic service and discharge of letters.

9. The spacing of windows, and their size and height from the floor, are indicated to us with almost unavoidable exactness.

Think of the feelings of an Athenian architect of the time of Pericles, to whom the problem should have been presented to design

a building of fourteen stories, imposing upon him the following conditions: All of the stories except two to be 10 feet 6 inches high, all window sills to be exactly 2 feet from the floor, all lintels to be 6 inches from ceilings, and all windows to be in width not less than 4 and not more than 6 feet, and to be situated at distances apart of not more than 6 feet. If these conditions did not paralyze the architect, give him a few more: That all windows should have flat lintels, and that he must avoid as much as possible all projecting members on the façade, since these catch dirt and soot; and give him instructions to put on a few ten-story bay windows.

Yet these conditions are common enough now, if not in their entire number, certainly in the majority.

The next group of questions of vital importance relates to structure.

The building must be fireproof. Formerly a fireproof building meant one which was constructed with iron columns and beams, the beam spaces being filled with brick arches. The defect of this system lies in the fact that iron is not reliable in case of fire. At comparatively a low temperature it loses its carrying capacity and gives way; or else when very hot and suddenly chilled by water it is apt to break. The present fireproof structure is provided with metal columns and beams, all of which are inclosed in an envelope of hollow terra-cotta, which is securely fastened to the supporting metal. By this device heat is kept away from all metal work, and absolute safety secured. (Fig. 1.)

Steel columns are rapidly coming into use instead of cast iron, for the reason that iron presents many unreliable features in the difficulty of obtaining perfect castings, and of ascertaining certainly whether the casting is perfect or not. The steel columns are made of rolled plates of steel which are bent into proper form and riveted together. Thus they may be perfectly inspected and are absolutely trustworthy.

In the enormously tall buildings now erecting, scarcely any form of masonry is strong enough to use alone in the construction of the fronts; when, as noted above, windows must be placed at distances not much more than 12 feet apart, and should be at least 4 feet wide. This leaves a pier of not more than 8 feet at best, and this is often not strong enough to carry its loads without making it very thick, or by strengthening it with metal.

The first is costly, both in itself and because of the renting space it consumes. The second is entirely practicable and satisfactory. An iron or steel column is placed within the masonry pier, attached to it by anchors which do not interfere with any difference of expansion of the metal and masonry, and this column carries the loads of the various floors, the masonry being a mere fire and weather proof protection.

Another and still simpler method is to inclose the metal column in an envelope of hollow terra-cotta supported at each story on the column itself by brackets. In this case the column does all of the work. And any portion of the terra-cotta covering may be removed without injuring the structure.

Beneath all of these various supporting members foundations lie, which present some of the most interesting features of Chicago architecture or engineering.

The greater portion of the center of the city is built upon a bed of clay, more or less soft, the firmest part of which lies at an average depth of 12½ feet from the grades of streets. This clay, firmest at the top, is of varying depths, the upper part, called "hard pan," varying from 3½ to 7 feet thick; and borings through it to a depth of 75 feet often show no very great variation in the texture of clay beneath, although at greater depth there is more water, and therefore softer clay.

By tests made by the government, and also by individuals, this clay is found to be capable of carrying loads of not more than three and a half tons to each square foot. Practically this is greater than is safe, and the load generally assumed as conservative varies from one and a half to two tons, as greater loads per square foot create settlements so large as to be embarrassing.

Into this clay, every building built upon it settles to a greater, or less degree. In several cases this settlement is considerably over a foot.

The general theory of foundation plan is to exactly proportion the area of each foundation pier to the amount resting upon it, keeping it free from every other foundation pier, so that the whole settlement will be equal, each pier being entirely independent. Thus a pier weighing, with the floors supported by it, 150 tons, should have a footing of 100 square feet, and one of 75 tons, footings of 50 square feet. Several very nice variations must be made from this general law, but this is the rule.

How best to construct this floating raft is the vital question. Formerly it was made in the shape of a pyramid of stone laid in cement, but this is costly, filling up the basement with its bulk and adding often twenty per cent to the gross weight of the whole pier.

The present method is to lay down upon the level clay a thin bed of cement upon which are placed steel rails or beams, spaced at closer or wider intervals, according to the weights to be carried and the length of the beams. The rails are then filled between and covered by cement, thus excluding air and water; another set of beams are laid upon them, somewhat less in area, and so on, the whole forming a solid mass of cement webbed with a mesh or grill of steel, giving it very great transverse as well as crushing strength. (Fig. 3.)

Such a foundation is made, covering areas of 20 feet square or more, the total height of which is not over 3 feet 6 inches, thus leaving the basement unobstructed. Under the old system of construction a stone pyramid 12 or 14 feet high would have been necessary properly to do the same work, and entirely filling not only the basement, but some of the first story also.

I have said that whatever construction of foundations be employed, some settlement of the building takes place. This creates several

very delicate and interesting problems. It frequently happens that a very heavy building is to be erected by the side of another already completed. The new building will, of course, settle, and in doing so will work injury to the old one, cracking its walls, destroying the level of its floors, etc. Besides this, the old foundations are not large enough for the new and larger weights.

To overcome this difficulty arrangements are made to underpin the old wall, and support it temporarily with heavy timbers extending far enough east and west to span the width of the proposed new foundations. While the wall is thus supported the new foundations are put in place, and that portion of the new wall begun which is needed to make, with the old, a composite wall strong enough for all of the work. The old wall, up to this time carried on timbers, is not reconstructed for some time, but instead of the timbers originally used jack screws are substituted. (Fig. 2.)

As the new construction proceeds, the new wall, with its foundations, slowly settles, and to hold the old wall and the building to which it belongs in place, the jack screws supporting it are turned from time to time, becoming slightly lengthened, and thus keeping the former levels undisturbed. This will probably be necessary to continue for a year or more, as the new building will continue to settle for that time. When all settlement has ceased the jack screws are one by one removed, and the space occupied by them filled with brick.

This is simple enough; but sometimes it happens—in this case let us suppose that the old building adjacent to us is so occupied in the basement that we may not go into it without underpinning, and are thus prevented from using the above device. We cannot rebuild the foundations, yet we must not add to the load they carry. Here comes in one of the architect's best friends, the "cantilever."

Some distance from the old wall, columns are placed which are used as fulcrums of a lever. Farther away, on the long arm of the lever, another line of columns is placed, and against the old wall still another. Beneath these a foundation has been built, widest next the columns next the wall, and narrowest beneath the columns farthest

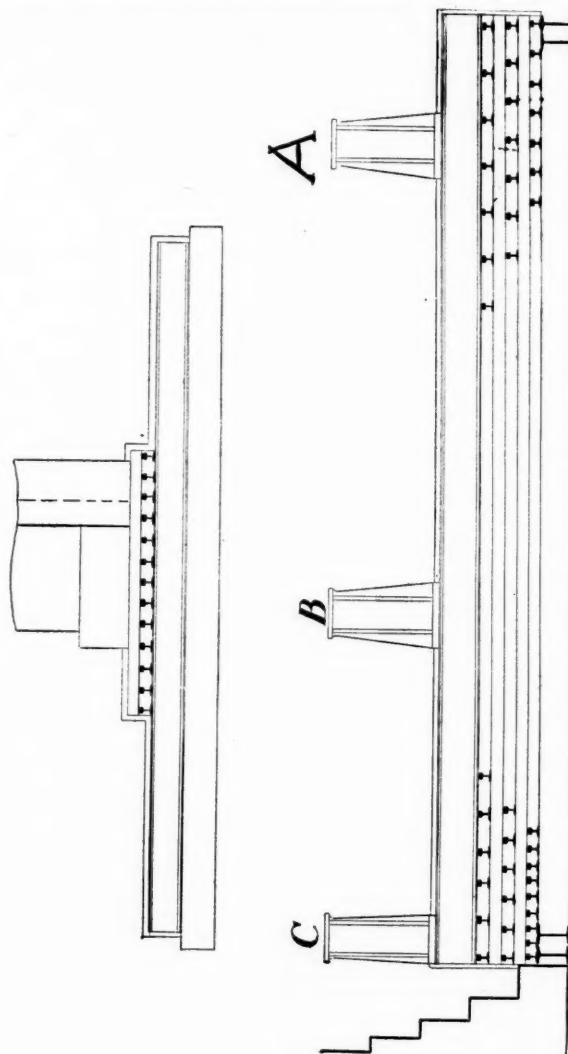


FIG. 3.

from it. The columns next the old wall will carry, on beams connecting them, whatever height of new wall we may require to be added to the old for the completion of our building. A very heavy girder runs beneath these three columns, and you will see by this diagram that if our calculations be correct, the column A will tend to settle most, the column C least, and the intermediate column B should settle exactly like all columns carrying simple and direct weights.

Thus we carry our own new wall from within, and in no way disturb the neighboring building. (Fig. 3.)

When the foundations are completely built, as I have indicated, large cast-iron shoes are put upon them to receive the base of the steel columns and distribute the loads carried by them over a larger area upon the footings (Fig. 4). When the steel columns have been placed upon these shoes, and the structure has reached the first floor, the steel or iron beams are all bolted to the columns through wrought-iron brackets, and each beam is bolted to the next, forming a perfectly rigid skeleton of metal.

To guard against all lateral movement from wind pressure or other causes, diagonal braces are carried along the tops of the beams between extreme points of the building, so as to tie the whole structure together like a truss. So strongly may this be done that a section of floor framing might almost be turned on edge and hold itself intact like a bridge truss.

Thus, this great iron skeleton is slowly articulated from story to story, and during this process the flesh and skin begin to grow upon it.

It will not do to wait till the roof framing is done before covering the anatomy of the building with its preclay, for here a nice point peculiar to our soil comes in.

The plans of our foundations have necessarily been made for the completed building, and at each stage of the construction the same relationship between the weights of each pier must be as nearly as possible maintained as will ultimately exist in the completed building; otherwise one part will settle lower than another, and needless strain be imposed upon the building. If the soft clay kept its original condition after the building were complete as it had before, the whole structure might resume its levels with completion, though, as just remarked, with considerable strain; but the clay is compressed by the loads placed upon them, and is drained of its water to some extent, thus becoming harder and capable of resisting greater pressure.

Those weights which are last placed upon it do not settle as much as those placed upon it in the beginning. The whole construction of the building should, therefore, develop together.

All that has been written relates to those portions of the building with which the public at large can have but little interest, but which is inner and significant principle about which every external aspect must arrange itself.

The truest and best forms which this external aspect is to present will be found by a reasonable appreciation of conditions of our civilization, of our social and business life and of our climatic conditions.

And even a slight appreciation of these would seem to make it evident to every thoughtful man in Chicago that all conditions, climatic, atmospheric, commercial and social, demand for this external aspect the simplest and most straightforward expression. Bearing in mind that our building is a business building, we must fully realize what this means. Bearing also in mind—though this, like the other conditions, is not likely to escape us—that dust and soot are the main ingredients of our native air, we must realize what this means. Both point the same way. Every material used to inclose the structure we have seen raised must be, first, of the most enduring kind, and, second, it must be wrought into the simplest forms.

These buildings, standing in the midst of hurrying, busy thousands of men, may not appeal to them through the more subtle means of architectural expression, for such an appeal would be unheeded; and the appeal which is constantly made to unheeding eyes loses in time its power to attract.

They inevitably become an integral part of the machinery of business, and may scarcely ever be fortunate enough to be thoughtfully and leisurely studied by the contemplative mind.

In them there should be carried out the ideas of modern business life, simplicity, stability, breadth, dignity. To lavish upon them profusion of delicate ornament is worse than useless, for this had better be preserved for the place and hour of contemplation and repose. Rather should they by their mass and proportion convey in some large elemental sense an idea of the great stable, conserving forces of modern civilization.

Enough has been said to suggest how radically new in type such edifices are, and to cause us to note how essential is the difference between the modern and any of the preceding recognized architectural types.

The cathedral of Cologne, in its structural development, is complete in itself. Its structure and art expression are one. So of the dome of St. Peter's or of any one of the great monuments of the world, except those of the Roman period. With the Romans, constructive methods as related to the ultimate completed building are suggested by those mentioned in this paper, for the Romans built of cheap material the framework of their temples, palaces and bridges, which was afterward covered and decorated with costly marbles and bronzes. Employing unskilled labor in the erection of the structure, and skilled labor only in its decoration, they were compelled to use vast masses of material, much more generally than would have been necessary for the same work than if scientifically employed.

But in modern instances, such as we have mentioned, the reverse is the case. The utmost economy of material is employed, not a useless pound being admissible.

In the Roman régime, one mind, the architect, must have foreseen the completed building and provided for all of its final adornment in each part of the structure. So with us. But it does not follow that in the most rigid adherence to scientific law we need to lose sight of the broad and artistic features through which our buildings may express themselves.

One result of methods such as I have indicated will be the resolution of our architectural designs into their essential elements. So

vital has the underlying structure of these buildings become, that it must absolutely dictate the general departure of external forms; and so imperative are all the commercial and constructive demands, that all architectural detail employed in expressing them must become modified by them.

Under these conditions we are compelled to work definitely with definite aims, permeating ourselves with the full spirit of the age that we may give its architecture true art forms.

To other and older types of architecture these new problems are related as the poetry of Darwin's evolution is to other poetry.

They destroy indeed much of the most admirable and inspiring of architectural forms, but they create forms adapted to the expression

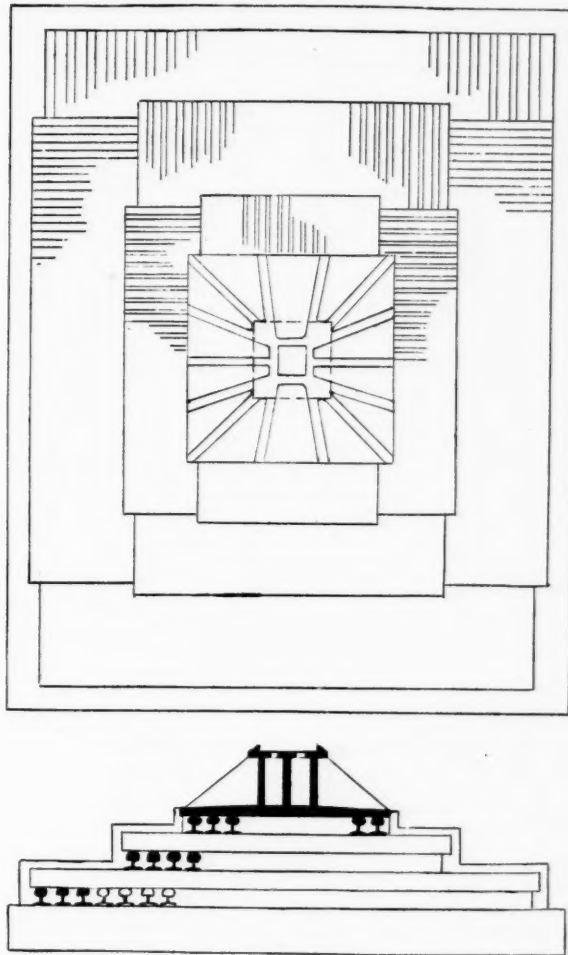


FIG. 4.

of new ideas and new aspects of life. Here, vagaries of fashion and temporary fancies should have no influence; here the arbitrary dicta of self-constituted architectural prophets should have no voice. Every one of these problems should be rationally worked out alone, and each should express the character and aims of the people about it.

I do not believe it is possible to exaggerate the importance of the influence which may be exerted for good or evil by these distinctively modern buildings. Hedged about as they are by so many unavoidable conditions, they become either gross and self-asserting shams, untrue both in the material realization of their aims, and in their art function as expressions of the deeper spirit of the age; or they are sincere, noble and enduring monuments to the broad and beneficent commerce of the age.

A Sketch of Travel.*

BY IRVING K. POND, ARCHITECT.

MR. POND prefaced his remarks with some allusion to the organization of the club and the great advancement made in its scope and usefulness, after which he continued as follows:

In other papers before the club, if I remember rightly, I have sought, more or less, to instruct. In this I shall not try to be instructive. I am willing to "let the dead past bury its dead," so far as instructive papers are concerned, but I do wish to go to the past and rake up a few embers which have been smoldering for some time now under the ashes, and to fan them into a little flame. A hasty glimpse at the pages of my note-books, a lingering glance over the pages of my sketch-books, and the fluttering of the leaves is sufficient to fan into new life the slumbering recollections of a season of wandering in the architectural and artistic mazes of other lands. My awakened fancy will touch on other, as well as on artistic, themes,

*Read before the Chicago Architectural Sketch Club, Monday evening, May 19, 1890.

as my eyes and thoughts often did in that golden time of new sights and experiences—sights and experiences, perhaps, old enough to many another, yet so new to me.

As my memory is not dependent at all upon steamship sailings or railway time tables, I shall quickly and somewhat regardlessly turn to and from scenes of new life or of old life, scenes of new death or of old death, spectacles to amuse or to make sad; from snow and frost in Germany, and rain in France, maybe, to sunshine and blue sky in Italy; from sense to nonsense, maybe, a lapse which will be pardoned, I trust. It was in response to duty's call that I started on my journey. "Full of beauty; in the path of duty," says the song. I took it for granted there was to be pleasure in following in duty's wake; otherwise I had taken steerage passage. As it was, I went steerage one better, took second cabin, and the sooner to place my internal economy in harmony with the requirements of continental diet, took that second cabin in a German steamship. I enjoyed my first meal hugely, complimented Germany on the nice cargo of fresh Chicago meat she carried, on her Michigan apples and Florida oranges, and on her stability, for over the smooth waters of the bay she stood like a Rhine castle on a great rock (though, as I found out later, she contained neither baggage nor ballast!).

With the exception of the aforementioned articles of diet, I believe I was the only native-born American in the ship. I had a particularly wholesome feeling for the Chicago parties, when I learned that my neighbors all about me at table were from imported stock. I remember the incidents of that first day's ride very vividly—the tears at parting, the fading lines and colors of the great city, the fresh sea breeze, the fears of a new found German-American friend, that he would be arrested in the fatherland and be made to serve out his time in the army, which fears were realized, as I happen to know, much to his sorrow, as you happen to know if you happen to know anything about the discipline of the German army, and how irksome it must be to even an adopted American spirit. I remember the sinking land and the rapidly retiring sails which flapped above seaward-pointed prows. I remember it all till evening; then sleep came to put the varnish on the picture of that day's ride, one of the rarest of the pictures which hang in the salon of my memory. The picture which hangs next in chronological order is not so striking in composition nor so brilliant in color as some of the others are, but there is a mild charm to it. I had lost sight of the land I loved, and was not to see again for a year at least. A Switzer fellow, who had left his mountains but a few days before to live with a brother whose new home and interests lay beyond the Alleghanies, was one day nearer to the land of his heart, from which he had parted so short a time since, and as he supposed forever. Those mountains do pull at the heart strings of a patriotic Switzer. This one had reached New York, but it was not like home. Edelweiss bloomed, pictorially, in the dank beer tunnels, and not in the crisp air of his mountains. The timid chamois was there, not bounding from crag to crag, but killed, totally undone, and its tanned hide was being rubbed over the brass and crystal plate of an alderman's bar. That alderman, that leader of the people as he called him, that *representative* of the people, as we know him, was not much like William Tell. A medieval tyrant even were better, for he had *some* sense of honor and decency. So the poor Switzer fellow was returning, without even having seen his brother, and as the days shortened his heart grew lighter; as the days lengthened the land I loved was sinking deeper and deeper below the horizon. I do not care to say much about the other days of that ocean voyage. The wind came up and stayed, so did my dinner. The deck came up and didn't stay. I was with the deck, although I seemed to be in forty places all at once, as the bottom fell out and we dropped into the trough of the sea. * * * *

After the second day I was happy, but once on board that ship, and that was when we sighted the green hills of old England, off Plymouth, and then night set in chill and rainy, and that, with distance, shut out from sight the patched quilt of landscape, with wooded spaces, tilled fields, grassy openings, sweeps of wavy grain, and green-capped chalk cliffs; and the next time I was happy was when I was in a clean French bed, with candle snuffed and curtain drawn and gentle sleep about to settle on my lids at 2:30 o'clock of a Sunday morning in Cherbourg. Because I skip that part, it does not signify that the encounter with the French customs officials, on the cold stone quay, in the drenching rain of dark, early morning, was without extreme interest or humorous situation as well—it was very funny! But other encounters of mine with customs officials have been more replete with dramatic incident and have more deeply touched my pocketbook. The quaint tavern which contained the bed which contained me during the few first hours of my wayward continental wandering is well worth describing to those who have not seen similar provincial hostleries, and I might say, under similar interesting conditions. I remember that I could hardly keep my eyes open from sleepiness as we rode in the little "bus" from the quay through narrow, dark streets, between high gabled houses, over rough and rattling cobblestones, and finally under a low archway into the courtyard of the inn. Our hostess, with a bevy of neat, white-capped maids, awaited us with lighted candles in the little office, upon the stone pavement of which the rain was dripping. The courtyard was lower than the street; the office pave was lower than the courtyard, very evidently, for the water was flowing in streams into the house and it was too dark for us to see where it did manage to escape at last. I wondered why they kept so great a part of so small an office out of doors on rainy nights and thought to solve the problem, a sort of architectural problem, to be sure, to my entire satisfaction in the morning. But in the morning the aspect of things was changed, for the sun was shining brightly on the tile roofs about the court and upon the potted plants on the window ledges, and the swinging casements reflected in every direction the cheery welcome of the bright sunshine

of our first, at least *my* first European day. The office seemed all right, perhaps a little damp, as if from recent contact with scrubbing brush and broom, for the little rivers had, in some subterranean way, "to the ocean run." In the courtyard I saw a soldier, and from then till when I took ship homeward bound I couldn't have slapped at a flea without hitting a soldier, not that all the fleas are on the soldiers, but there is a soldier for every breath a fellow draws over there. The steps of the winding stone stairway which led from my chamber to the ground were worn and slippery with age and feet, but they are good for a few centuries more. The breakfast in the sunlit café was fresh and sweet and blotted out the bitter memory of many an ocean steamship meal partaken of or passed by regretfully, anyway lost to me.

To those that love the sea a land journey seems tame, but to me the smooth swift ride by express from Cherbourg to Paris through the garden of Normandy was like the fragrance of a delicious dream, after my rude rocking in the arms of Neptune. Apple-trees were laden almost to breaking; even the props bent beneath the ripening fruit. Roses climbed over the hedges along the track, and covered the walls and roofs of the way-station houses. Peach, pear and apricot branches brushed the roof and sides of the coaches as we swept along through the orchards, and the guard must have received many a quick rap from the boughs as he passed along the foot board at the side to collect the tickets. It was one stretch of beautiful sunlit garden as far as the eye could reach, until we touched the skirts of Paris, and were soon lost in the ample folds. It was a quick transition from the half-timbered cottages with thatched roofs to the domes and mansards of the gay city; but we never minded the quickness of the transition, in spite of the beauty of the country, for our cry was, "on to Paris." I will not try to describe Paris. Better men have tried it and left but a vague impression. I imagine it would be like trying to describe a rainbow to a blind man. But Paris being France, it is easy to see how certain types of French life and certain modes of French thought, being brought to fuller and more perfect fruition in the intensified atmosphere of the capital, can here be tasted and enjoyed without one's having to go into an exhaustive study of the whole field. Some of these salient points I will try to touch upon. It did not take many hours' strolling along the boulevards, where one comes in contact with the entire scale of Parisian life, to fix one thing pretty strongly in my mind, and that was the absolute perfection of finish to everything to which the Frenchman applied his art, be that thing man, woman, child, painting, sculpture, building or pavement, even. We may not like the style, but we must say here is "style." Here is technical finish in the highest degree, controlled by a feeling for the beautiful and a knowledge of correct relationships. Take a Frenchwoman, for instance; catch her with a dark skirt and light stockings. You can't. Catch her with a straw bonnet and a fur shoulder cape. You can't. Not only you can't catch her, but she doesn't exist. From the toe of her boot to the tip of her glove finger, the Frenchwoman is perfect in dress, and in this implicit obedience to the laws of fitness she stands for her race in other matters.

You cannot stick a spade into the ground in Italy without unearthing a fragment of ancient art, a relic of a dead past. You can't lift your eye in France without beholding a finished piece of modern art, a vital factor of a living present! I made this discovery for myself (as others have made it for themselves) in the first few hours of my sojourn in Paris; and so you will not wonder that I did not lay out definite plans for a few days, but wandered in and out among the streets and buildings, putting to the test my newly formed theories and glorying in my newly acquired knowledge. It is a deep appreciation of man as an animal and a love for all sides of his character which led the builders of Paris to place buildings of all shades of feeling just where the passer-by could turn to them for relief. The Madeleine came to me like a cup of cold water, or rather I came to the Madeleine like a panting animal to a cooling stream, after a few hours of wandering and winding among the lighter phases of Paris life and art, and that church was the first public edifice I entered in that city.

I could never reconcile the Classical architecture of Munich to the surrounding art and life, but somehow that great, simple Greek façade never seemed an incongruous thing in Paris. It was like the serious shrug of a French comedian's shoulder, quite to be expected, and irresistibly fascinating. Perhaps I am prejudiced? Well, perhaps I am. I came into Munich out of Italy, in a snow storm, with nose nearly frozen, and fingers so stiff that I broke the mainspring when I went to wind my watch. All that did not seem to me to be quite consistent with bare heads and legs and floating togas! A German watchmaker mended that spring, but either the spring had contracted a cold, or the cold had contracted the spring, for the watch would not, after that, run for twenty-four hours without two windings. In my sketch-book I came across some hasty memoranda of a peculiar feature of French life, namely, the sidewalk cafés. Now this is the difference between American and French streets. In the American streets you are apt to be crowded to the gutter by the piles of goods laid out on the sidewalk for sale and display, piles which are always surrounded by an eager crowd of bargain seekers, each one striving to save that cent, as if it were one hundred dollars. In Paris, the chairs and tables of the open-air cafés blockade the walks, and at certain hours are filled with gay and festive lunchers, who talk over affairs of business or of pleasure, of politics or of society, and the man who happens to be passing just then without appetite for food or for affairs is forced to balance along the curb or walk in the gutter.

During my first visit to Paris the French salon was open. This was not the great salon which opens in May, but was an exhibition confined exclusively to French art in painting, sculpture and architecture. The architectural display was noticeable rather for the delicacy and finish of the drawings than for any especially bold features

of design. I would like to transport that phase of the French architectural art to America. It might not thrive here, for we seem to have little in common with the feeling that beauty should be a higher ideal than bigness, nor do we seem to appreciate that boldness is oftentimes brazen effrontery.

The opening of the great salon is in May, and is the social and artistic event of all Paris. Have you seen a penniless boy hanging wistfully about a show tent? That was I and the salon, metaphorically speaking. I had money enough, but I had no ticket, and as the tickets that day, that great varnishing day, were gifts, and as nobody had offered me one and I was too modest to ask, I stood simply looking. As I stood thus simply looking, I was accosted by a rather dilapidated French gentleman with a hungry visage: "Would the monsieur like to visit the salon?" Ye gods! was this a French angel in disguise? I feared so, and hastened to clamp the bargain before it could get away. "You bet!" (Not strictly that, for we were conversing in the French gentleman's own tongue, but it will serve to show my state of mind.) "Certainly, it would be the greatest happiness of my life." "I have a ticket." "How much? *Wie viel? Quanto costa? Combien?*" (at last!) "Five francs." I fairly jumped, I would have given twenty, but I restrained myself, paid five and passed in with all the grondees of Paris and the visiting world. My experience goes to show that that is the reward which always comes to modest waiting. I would have given another five francs to have known what I know now, that I was in the same room with Marie Bashkirtseff and her paintings. I saw no paintings that day. My head ached so that I had to leave the galleries when, after four hours' counting, I had reached only 15,000 new, beautiful, individual spring toilets on as many vivacious women, and had not seen them all.

It is a night's ride from Paris to Switzerland. I took that ride before I had seen Paris to my entire satisfaction, because I heard that heavy snows were falling in the passes early in the season, and I did not care to come into personal contact with an avalanche. However, early as I did go I had an experience. I had intended taking a *voiture* (a light wagon) over the "tete noir," but the guides declared the roads impassable to vehicles, and I was advised to desist. I didn't want to desist. That wasn't what I went to Switzerland to do. I could have desisted anywhere, in America, for instance, if I had cared to.

So the good people of the tavern in Mortigny furnished me with a guide and a horse. We started just after breakfast. I was full size, but the horse was evidently laid out by mistake to a half-inch scale, and I winded him within the first half mile. However, he stood me in good stead, though I went on foot the remainder of the journey, which was some fifteen miles in all, and six of them up hill, for I strapped my traps to the saddle, and when we came to a particularly wet space I used him for a ferry. We climbed up for hours with eyes nearly blinded by the sunshine on the fresh snow. We would turn now and then to look back on the little tavern below us, almost straight down, at first only a few feet and then a good many hundred, for the tete noir is one of the highest passes of the Alps. At last we reached the little hut which crowns the summit of the pass, and stopped on the rude bench to rest our tired limbs. I ordered 2 cents worth of wine for myself, and brandy for my guide. As I took the glass the wrinkled old hag who kept the hut said with a cracked smile, which might have been sunshine in other days, "*Le Monsieur, a du bon courage!*" At first I thought she referred to the wine, and I eyed the glass suspiciously as I took a sip. It was all right. So I ordered 2 cents worth more. Of course, she referred to my courage in attempting the pass after the hard storm of the previous night, which had indeed blotted out every sign of the path in many a ticklish place, and must have skimmed over many a dangerous crevasse. And then there was the added danger of snow slides. I disclaimed any especial courage, told her it was one of my customary constitutional, and went on my way rejoicing. On the down side of the summit we encountered a storm of snow. We didn't encounter much of it, for it was leaving the valley just below us; but we saw it raging there, and were relieved to see it sweep around a mountain and out of sight. We stopped at a more pretentious hut for late dinner, and here there was a weak conspiracy to detain us for the night—bad roads, danger, etc. My guide was weakening. Two more brandies for him and we started. There is no especial need of detailing the events of the day. We lost our way, came back a mile to regain it, but from that on Mont Blanc was ever before us, and all we had to do was to keep right on stumbling and slipping and ferrying and fording and sliding down into the valley, where long after dark we saw the lights of Chamounix.

I was pleased to see the lights of Chamounix. I was pleased to find other travelers in the inn. After a hot supper by the side of a big, blazing fire, I went to bed. I was too tired to have any care for damp sheets. In fact, I never thought about sheets till morning when I found I was frozen in between those on my bed. I called for help and a hatchet, and by noon I was dressed and down stairs. From where I lay in my bed of ice I could look up the whole side of Mount Blanc from bottom to top, and the sight was glorious. I had the pleasurable sensation of being an integral part of one of the biggest things on earth. The sunshine which illumed that grand old crown was the same that flooded my bed chamber. The ice which glistened on that great bald pate descended in sheets, and restrained, gently but firmly, my corporeal being, while my spirit could soar at will, and my voice could demand freedom. My voice prevailed, and with a hatchet I cut Mount Blanc off from me, and the great white mountain stands there sadly today a maimed thing, while I am as whole and as happy as ever.

The sunny plains of the South of France offer such great contrast to the ice fields of Switzerland that I will speak of them here. Caesar went into Switzerland by way of the Rhone Valley. I

came out of Switzerland by way of the Rhone Valley. Curiously enough I did not see Caesar. However, the discrepancy of a few centuries of time may account for that. They were building a great cathedral at Lyons. They evidently imported the building sand in barges. I used, while in the city, to go down to the quay to watch the man unloading the barges, because of my interest in the man and in his manner of unloading. There may have been more than one man. However, the one I saw used to go down into the hold with an empty sack of gun cloth, and in the course of time would reappear up the ladder of the companion-way with the sack full of sand on his shoulder. From the deck of the barge he would climb up onto the quay, dump the sand out of the bag, and after a breath of fresh air would climb down into the hold again to repeat the operation. Was it slow? But there is no finer building done in France than in Lyons, and there is no finer building done in the world than in France. In Paris an equally novel sight struck me. It was where excavations had been made for foundations for the great new postoffice building. The water was removed from the trenches by men standing in line and leisurely passing back and forth pails empty and full. Slow? Well, yes. And the concrete, in pails, was passed along the same way and dropped into the trenches from on high at the rate of about a quart a minute. Slow? Well, rather. Yet more fine buildings have been erected in Paris than anywhere else in France, and more fine buildings have been erected in France than in any other country of the modern world. Is there any lesson to be learned from it by us? May it not be the fable of the "Tortoise and the Hare" unrevised? I am not reading an instructive paper; I only ask.

Down on the sandy plains of southern France there is a grazing district rich in nourishment to an extent hardly conceivable to one who takes but a superficial glance. Over these plains the shepherd goes on short stilts strapped to his legs below the knee joint. This is made necessary by the burning sands. The flocks and herds are attended by brave shepherd dogs, intelligent almost to the verge of being human. The hot sun and burning sands make these dogs wear numerous short pants. Now I will state a fact. I saw in this region cattle clothed "fore and aft," but more particularly "fore," in loose-fitting, baggy trousers; why, I was never able to determine, as no one I could ask about it seemed to know. I have a theory; it is my own, but it may not be correct for all that. I took my clue from certain strong-minded women who think to inspire respect by aping male attire. Now it may be that the owners of these cows, ignorant or unappreciative of the gentle instincts of the shepherd dogs, thought to inspire greater respect in them for the cows by giving to the latter by artifice what the former had by nature. This is my theory; it may not be correct. Speaking of attire, I may say here that in the provincial towns of southern France are to be seen some of the quaintest and most picturesque styles in dress which are worn by women today. The women of Arles are especially tasty in their dress, which avoids all hint of the grotesque so often found in the peasant garb.

From these grazing grounds it is so near to Spain that we will just step over the Pyrenees for a few moments and pick up a few bits of life there. One cannot go very far into Spain today without seeing a very quiet, dignified and altogether interesting figure standing demurely, yet with a not entirely concealed alertness, at some point of vantage, and not more than fifty yards away, nor less than twenty-five, perhaps, you will see his shadow. The man is of medium size, compactly built, with smooth face but for his rather heavy mustache, and always clean shaven. He is dressed in a perfect fitting suit of black—knee-breeches and leggings, a black mantle reaching to his knees and a black cocked hat. At his foot rests the butt of a repeating rifle, and up under his cape his hands clasp the barrel. I didn't see him when I entered Spain, for it was a dark, rainy night, and I spent all my time outside the customs house looking for a stolen umbrella—stolen from me—I had paid 35 francs for it in Paris, and it was so beautiful I never opened it when it rained, but the rain always made me think of it. Well, never mind about the umbrella. If I did not behold the gentleman in black till the next morning, it is not because he was not where he should have been. That is just where he always is to be found. So you know he was not a policeman. He is a member of the civil guard, and if I had known his duties and position in society I would not have traveled for some little time through out of the way parts of the Spanish territory wondering why the train or coach was not waylaid and all the passengers, my own precious self among the number, robbed. The civil guard makes Spain habitable today. His authority transcends that of the policeman or of the police magistrate. He comprehends the functions of the police, the magistrate, and the executioner almost. His authority is seldom called into exercise, but when it is, it is final. So highly is this authority respected that if the police were beleaguered by a mob while attempting to arrest a ringleader, the appearance on the scene of one of the civil guardsmen and his shadow at a little distance always would conduce to absolute peace and quiet; and if the civil guardsman were to order the offender to accompany the police officer to the station the order would be complied with quietly and immediately. The order would be delivered in a low, dignified, conversational tone. The weapon of the civil guard is seldom raised, but a slight inclination to restlessness or resistance on the part of the offender would immediately bring the gun to the shoulder and the muzzle against the offender's heart. If the guard were to fire he could not be reached by process of civil or military law. Only through his superiors is he responsible to the state. You will see the reason for this shadow, as I have called him. He really is the same as his fellow; the one is the shadow of the other. They never come together, and consequently if one were to be surprised the other would be able to render necessary assistance. Nobody wants to attack a civil guardsman, for he is certain that an

unnatural movement in the direction of one will bring the gun of the other to bear on him. A snap of a guardsman's trigger means death to the man in front.

Looking at the police of our American cities, one would be apt to say that there is a very risky conferment of arbitrary power in such a system. But when you know the personnel of the guard and its history you can readily see how what is not safe here could be the best thing there. These guardsmen are chosen from the very flower of the best families. They are bound by oath to do their whole duty to society and the state. Their highest pride is in the fact that they are gentlemen in the truest sense of the term. Every harsh tone is polished out of their speech, every rough action out of their demeanor. When one enters a railway coach he recognizes politely every occupant, touching his hat, I believe, to ladies, but doffing it to no one. Answering in dignified manner and polite terms all direct questions, but otherwise never to be drawn into general conversation, he always brings a touch of gentle favor, and is a decidedly welcome co-occupant of a railway compartment. I would like to tell more of him, for in all my wanderings I came upon no one to whom I was more kindly drawn.

There is another class of Spaniards, the members of which are more widely known than the civil guardsmen are. These are the bull fighters. I have seen stories about them and long illustrated articles about them in our refined and popular magazines, but from these sources I have never drawn a word about the civil guard. Perhaps the American public is like the Spanish populace, to whom the bull fighters are heroes—little gods. I understand it in Spain; I don't understand it in America.

As soon as one is fairly across the Pyrenees he begins to encounter traces of the Moorish and Arabian civilization in Spain. As he journeys southward the traces become clearer and outcropping fragments more attractive, until he comes at last on the full noon-tide of the Alhambra. It was the beauty of this building that induced me to go over into Africa and encamp for a time within the borders of Morocco and study the descendants of the builders of this enchanting pile. It doesn't harm one to come closely into contact with people of other races and nationalities concerning some of whom he has held, perhaps, belittling ideas. It makes us think none the less of our own people, but it makes us think better of the rest of mankind. I dare say a Chicagoan would meet with more respectful treatment in the byways of Tangiers than a Moor would meet with in the streets of Chicago. The why and wherefore I cannot stop to discuss, though it would be an interesting question.

An interesting sight up out of Granada and near to the Alhambra (to make another and somewhat abrupt transition) brought to my mind the funeral procession of Chicago, with the mental remark that the spirit in these matters is much the same the world over. We don't like to have death intrude itself on life, and so we banish funeral processions from the parks, boulevards and residence streets. Now, there is nothing so much out of the way in this if other streets are readily accessible. In Granada, instead of letting the bier, with its supporters and followers go along the broad beautiful avenue which winds up past the Alhambra to the cemetery beyond, the funeral band is forced to go up a steep, tortuous path in a narrow valley between the Alhambra and the Generalife. As is customary in those southern countries, the family and friends do not follow the body to the grave. Hired mourners do the wailing; perverse and stony-hearted little boys carry the dripping lighted candles, or lay them aside long enough to sling rocks at the cover of the bier which another little boy has set up against a bank of earth while he rests his aching arms. Of course, this is not a necessary incident, this throwing of stones by bad little boys, of every funeral occasion; but I witnessed it, not at all to my amusement, for I had looked upon the face of the corpse. I don't care much for corpses as a general thing, but I would as soon not forget that face. It was of a beautiful girl of twelve or thereabout. The bier passed me in the narrow way, and I could not help but see it. Pure, delicately chiseled features, long dark eyelashes, a lovely sad smile, a thin white veil falling from the wreath of flowers about the hair. Such beauty, such purity, such a loveliness—and such coarse heartless surroundings. Just to think of the father and mother at home, and that girl there! I bowed my head and followed, that one reverent heart at least might accompany her on her last way.

One of the most touching of the many old customs I saw enacted in the Catholic countries was the uncovering of all heads, the bending of all knees and the crossing of all hearts as the priest and his attendants, with canopy and surging censers, strode solemnly through the busy street to some distant death-bed to administer the rites of the last communion. No matter how busy a man might be, down he dropped upon his knees till the priest had passed. I say this is touching; but when this action is followed by that last described, I feel that, perhaps, after all, it is rather for the priest or for the rites of the church, than any real feeling for the suffering body, or any real care for the soul about to take its flight. But whatever inspires it I shall not quarrel with it, for any demonstration of genuine feeling is all too rare nowadays, and in many participants the feeling must be genuine.

At this season of the year, a word of advice to those contemplating painting may not be out of place. Within the past few years there has been so much attention given to the tasteful architecture in moderate cost dwellings, that the selection of appropriate shades for decorative painting has come to be a more important question than at any previous period, and the richest shades, if selected with taste, may be used to the greatest advantage. We caution the uninitiated, however, against attempting to choose combinations of deep, rich colors, without first consulting a competent architect or some reliable paint manufacturer.

An Expert's Report on a Strain Calculation.

THE necessity for architects understanding the principles of construction and the calculations of strains is well exemplified by the following facts, which are absolutely true.

A young architect was desired by an owner to prepare plans for a warehouse competent to safely carry 250 pounds per square foot of floor. After the drawings were made and the building was about to be commenced, the owner conceived the idea that the strength of the building was insufficient for his purposes, and employed an expert to examine the drawings and report thereon with regard to the strength. The following was the report:

The upper floor joists would carry 117 pounds per square foot.

The first floor joists would carry 140 pounds per square foot.

All girders throughout would carry 70 pounds per square foot.

The upper columns would carry 133 pounds per square foot.

The first story columns would carry 250 pounds per square foot.

The basement columns would carry 250 pounds per square foot.

The foregoing weights, in every case, are per square foot of floor with a factor of safety of five, that is breaking weights are divided by five.

It will be seen that the only portions of the building that complied with the given conditions were the columns in the basement and those in the first story; while the girders were not much more than one-quarter the strength required.

There are many buildings put up which are, to some extent, in the same condition as the one under consideration.

The strength of a structure is the strength of the weakest part. It is useless to waste money in making strong columns or strong joists when the girders will not sustain the load that may be put upon them.

It may be that the publication of such facts as these will induce the architects, and young architects especially, to study up such questions.

Texas State Association of Architects.

THE fifth annual meeting of the Texas State Association of Architects was held in Dallas, on May 13 and 14. The following officers were elected:

President, James Wahrenberger, San Antonio; first vice-president, Nathaniel Tobey, Dallas; second vice-president, George E. Dickey, Houston; treasurer, G. M. Tozer, Dallas; secretary, George W. Stewart, Dallas.

Executive committee, J. J. Kane, Fort Worth; S. B. Haggart, Fort Worth; M. McQuirk, Dallas; W. W. Larmour, Waco; J. Larmour, Austin.

The following address was delivered by the president, James Wahrenberger:

PRESIDENT'S ADDRESS.

GENTLEMEN OF THE TEXAS STATE ASSOCIATION OF ARCHITECTS,—Before proceeding with the regular order of business permit me to address a few remarks to you, gentlemen, here assembled as representatives of an important and noble profession. I feel confident that our actions and deliberations will be of such a dignified and harmonious character as becomes the nature of our occupation, and that the best motives, kind feelings, and a spirit of true fellowship will govern us in all our discussions, for the benefit of our association, and of the profession in the state. And after completing our labors may we all return to our homes with many pleasant recollections of this, our annual convention.

Important questions may be brought before us for consideration and discussion, upon which depend to a great degree the future standing and welfare of our profession, and let no member of this association hesitate to express his views fully and without reserve upon all points in this connection, as the interchange of ideas and personal experience can only be of great benefit in devising measures to be taken for the future welfare of the profession.

I desire, furthermore, to impress upon your minds the fact that it is of the utmost importance that more attention be paid to the affairs of the association by its members, and that its meetings be better attended than heretofore. In a comparatively new field where the nature of our occupation is not fully understood, and the labors of a professional man are to be peddled like a lot of merchandise, concerted action on the part of educated professionals becomes imperatively necessary. The practice of ignorant and unscrupulous pretenders must be met with united, intelligent and persistent efforts of a thoroughly organized association, to place the profession before the general public in the dignified standing to which it is justly entitled. It becomes the architect to stand before the public as a man, educated to follow a profession which makes demands for talent and attainments second to none in existence; for, while it is necessary that we acquire a thorough knowledge of the principles of construction, and keep abreast of the times with reference to all new improvements made in the mechanical branches connected with the profession, there are also those esthetical studies connected with the builder's art that require much time and application in order to become proficient, and to keep up with the spirit of the times.

If the practice of architecture were simply to supply the ordinary wants and comforts of man, without cultivating the mind for an artistic taste, the same would cease to rank with the fine arts, and descend to the level of an ordinary trade. Besides providing for the physical wants and comforts of our fellow beings, it is for us also to satisfy those desires of a refined intellect, that move beyond the materialistic wants of every-day life. Not to forget, however, that the laws of esthetics are taught us in the works of nature, and the effect of beauty can, therefore, in no manner be that of shallow sensualism, but that of a true moral spirit. We can never obtain the desired effect upon the beholder, unless the entire composition of our work, together with all its details, be so treated as to express a certain deep and earnest significance in the outward appearance of the design, as well as in its interior decorations and arrangements. By imprinting upon our work the prevailing ideas of intellectual taste, we create and further develop the peculiar styles that characterize the spirit of the age.

Monuments left by past generations teach us the history of the people gone before us, and mark their progress in culture and refinement; they give us an insight to their religious views, and to the peculiar habits and customs existing in their times. The history of architecture as a fine art begins with the temple, the house of God, which, in its various forms and details, has furnished ideas that have led to further developments for the adornment of public buildings, and the decorative features of our homes.

In order to acquire a proper knowledge of the various architectural styles, and a correct understanding of the many different forms therein employed at various times, the reason of their origin, and their purpose, we must trace back the history of architecture, and become acquainted with the prevailing ideas and views of the people in this connection, that have led the old masters to the development of these peculiar forms and compositions. As we do this, we find that in many cases one style has served as a basis for the gradual development of another, and as the peculiar ideas of taste, and of the grand and beautiful, become more developed in certain directions we are able to follow up the progress of the various architectural styles from their origin to their highest state of

perfection. Those of the profession who are so fortunate as to enjoy travels in older countries abroad, to view the monuments left by the old masters, at different periods of history, and also the grand works of modern times, derive the greatest benefit and the most valuable assistance in their studies of this kind. That the same are of great importance no educated architect will deny; they are essential to the designer in order to fulfill the first requirement of a design properly executed, which is, that a building as a mass shall, at a glance, impress the mind of the beholder with its importance, and disclose to him the purposes for which it was erected.

It has always appeared to me absurd that public buildings like court houses, postoffices, etc., at this age of steam cars and electricity, should be of such antique architectural styles as to remind us of the dark days of the inquisition, and of the carrier pigeon. Of that hideous nightmare, the so-called modern Queen Anne residence, perhaps the least said the better. And perhaps, also, of the peculiar misapplication of the misunderstood Byzantine and Moresque forms, in which some of the younger brethren of the profession seem to take a special delight to show their ignorance in architectural style and esthetics, and which to a great degree may account for the depraved taste displayed in much of our modern architecture.

The arts of painting and sculpture are closely allied with that of architecture, and have at all times lent a helping hand in embellishing and decorating important works. It is therefore required of the educated architect to show good judgment and taste in employing the assistance of these kindred arts. They have been developed hand in hand with that of architecture. Mark the difference in the manner of employing them at different periods of history, in connection with the architectural styles then in vogue, and compare the severe, stiff, cold lines and coloring of the earlier days with the graceful forms and beauties in the works of the Renaissance.

By reason of the amount of study to become well skilled in these beautiful and important branches of our profession, the practice of architecture should be entitled to stand as one of the most prominent practiced among the cultured and refined classes. That the educated architect does not yet fully receive the encouragement, through a proper appreciation on the part of the general public, which his profession entitles him to and which he enjoys in older countries where the profession and its requirements are better understood, is a fact of which we have almost daily demonstrations in our practice. However, of late years, we may note a marked improvement in this respect, with the wonderful growth of our country. The temporary log cabin of the hardy pioneer will soon exist only in the recollection of a few, and the time of the weather-boarded corner grocery and dry goods establishment, with a stock of patent medicines and the United States postoffice combined, is quickly passing by. The character of our public buildings is undergoing a marked change, and the importance of the profession is steadily increasing until it will eventually arrive at that high plane of excellence to which it rightfully belongs.

In the meantime, let us strive to establish those proper and correct relations which should exist between the honorable educated architect and his clients; we will thereby gain the confidence of the public that is necessary for the attainment of our objects.

We have repeatedly and in vain petitioned for legislation to regulate the practice of our profession, and to protect us, as well as the general public, against the abuses and pernicious practices of uneducated and unscrupulous pretenders. While we should renew our efforts with increased energy and vigor, what the prospects for success will be in the near future remain yet to be seen. The average legislator is not given to much thought in matters of this kind, and as long as only questions of a political nature remain uppermost in his mind, an encouragement in the promotion of science and the arts cannot be looked for by any legislation in this direction, in the near future. And positions held under the government by professional men, chiefly obtained through party influence instead of ability and personal merit, will for some time still lack that moral influence and high honor due the profession.

However, it is for us not to become discouraged in our labors, but to renew the same with a determined resolution hand in hand with those of kindred associations, and with the fond hope that with the wonderful growth and increasing prosperity of this country, our unremitting efforts will be eventually crowned with success. In the meantime, let us meet in council and advise with each other, as to the proper steps to be taken toward the public, to overcome the evils born of unprofessional and unscrupulous methods, and present such professional facts, methods and ideas in a manner that the public mind must become educated to the importance of our occupation. We must form rules to guide us in our practice that will command the respect of our clients, with whom we have our daily business transactions, and the public at large will soon begin to appreciate our position. Let us, also, not hesitate to exclude from our ranks, and ignore the pretensions of those who are not fitted by education, or otherwise, to practice the profession; such who look upon the occupation simply as a milch cow, and especially those whose past career in the profession has been of a dishonorable character.

During the few years since the organization of our association much good has been accomplished; the interchange of ideas and personal experience has been of great benefit to all of us; we have become united in one common fellowship, and have learned to struggle, hand in hand, for one common cause. Our aims and objects are already beginning to be understood and appreciated by educated and well-thinking men. Let us remain united in our persistent efforts to ultimately attain the objects of our association, and aid in raising the profession to that high standing which it so fully deserves.

In conclusion, I take the liberty of stating to you, gentlemen, that my views in regard to architects' competitions, as now generally conducted, have not changed in the least since expressing them at our last meeting at Waco. I still believe that the more architects respond to the shallow inducements offered in advertisements for these sham competitions, the more difficult the task will become to raise the profession to the standard so much desired. Good professionals should discourage such competitions by paying no attention to them, and all competitions where awards are not made by juries of competent professional men, should be entirely ignored. The temptation, I admit, is sometimes great to convince an ignorant committee of the superiority of one's ideas, expressed in his plans and specifications, but we may only succeed in our aims by sacrifice commensurate with the results to be accomplished. The methods of proceeding in these unregulated competitions, controlled by persons totally disqualified, have led to much discussion and ill-will among our professional brethren, and it is necessary that we have the proper respect and friendship for each other, in order to secure the confidence and respect of the public, and to succeed in the task that our association has laid out before it.

The minutes of the remainder of the meeting were not received from the secretary before going to press.

Association Notes.

EDINBURGH ARCHITECTURAL ASSOCIATION.

On March 29 the Edinburgh Architectural Association visited Prestonpans, and, notwithstanding the somewhat unsettled condition of the weather, a large number of members were present.

The party was under the leadership of Mr. Blanc, who first introduced to them the interesting feudal tower of Preston, which was described as a work of early fifteenth century, comprising, in an area of about 34 feet by 28, a tall keep about 50 feet to the parapet, with a seventeenth century addition, increasing the height by 17 feet more. The original structure had been divided into four floors, with the usual appropriation of lord's hall, private apartments and accommodation for retainers and stores. In a wing projected from the west side of the keep an interesting and unique construction of dungeons was examined, as also the special features of construction for the defense of the main entrance exhibited on the outside elevations.

Originally a possession of the Hamiltons, the tower has remained, with but short intervals, from the period of its erection with the family; and although much of the property originally attached to it has been disposed of, the tower itself, with the inclosure in which it stands, is now owned by General Sir William Hamilton, through whose kindness the party was allowed to view it. The tower seems to have been occupied up to 1663, when a fire, the third from which it had suffered, rendered it no longer habitable. It possesses a good deal of interesting detail, sufficient to have elicited the interest of antiquaries, by whom, a few years ago, a considerable sum was expended, under the direction of Mr. Blanc, in replacing a great deal of the carved stonework found among the ruins, and generally repairing the structure. The party next proceeded to Preston Cross, which was explained to be one of a type of market crosses erected in various towns in Scotland at the beginning of the seventeenth century. Its details were separately pointed out and examined, and after visiting the ruins of Preston House—the mansion of the Hamiltons after their occupancy of the Tower—and the old parish church of Preston, the party returned by Northfield House, the apartments of which the party, by the permission of the agents, Messrs Davidson & Syme, had an opportunity of examining. Points of interest were also brought under notice by the Rev. Mr. Mackay, of Prestonpans, who, in the absence through illness of Mr. Hislop, accompanied the party during their two hours' very enjoyable visit.

ROCHESTER ARCHITECTURAL SKETCH CLUB.

In the recent competition for an entrance gateway first place was given to E. S. Gordon; second, William E. Madden; third, Miss Nellie E. Dutcher.



The first prize design is given above.

CINCINNATI CHAPTER AMERICAN INSTITUTE OF ARCHITECTS.

The architects of Cincinnati met at 2 o'clock P.M. April 22, 1890, for the purpose of reorganizing the chapter in that city. Nine members were present.

President McLaughlin called the Cincinnati Chapter American Institute of Architects to order, and, upon motion of Mr. Rapp, all members of the Cincinnati Chapter Western Association of Architects were admitted to membership in the new chapter. This was done so as to merge the two societies into one. The meeting then adjourned for five minutes, and the Cincinnati Chapter Western Association of Architects was called to order, and, upon motion, adjourned sine die, thus consummating the consolidation of the two organizations into the Cincinnati Chapter of American Institute of Architects, which was again called to order and the following officers were elected to serve for the year beginning the third Thursday in April:

President, Samuel Hannaford; vice president, George W. Rapp; secretary, Charles Crapsey; and treasurer, H. E. Siter.

Mr. Rapp moved that the old charter of the Cincinnati Chapter of the American Institute of Architects be found, and this motion was carried.

Upon motion a committee of two was appointed to look up quarters for the chapter and report at the next meeting. The chair appointed as such committee Messrs. Siter and Rapp.

Upon ballot the meetings were fixed for the third Thursday of each month, at 3 o'clock P.M. Matters of general interest to the profession were discussed, and upon motion the meeting adjourned.

CHICAGO ARCHITECTURAL SKETCH CLUB.

The feature of the evening of the meeting, June 2, was a dissertation upon the practice of architecture by Architect D. H. Burnham. There was a full attendance of members present, and the perfect freedom given the members by the speaker to ask questions and make comments upon his deductions, made the occasion exceedingly interesting.

Without attempting to give Mr. Burnham's remarks or answers to questions in full, some of the points taken by the speaker will be read

with interest by the profession generally. The principal points in Mr. Burnham's remarks are as follows:

"You are Americans, and, therefore, hopeful of a successful life, and you look to me tonight for hints to help you. From the cradle you have heard that honesty, industry and attention to details will win. This is so, and the whole story. All three are necessary. About the two first there is no necessity to add anything, but about attention to details I am to speak now. An architect used to find little difficulty in designing pretty much everything needed by the people, from a court house to a cottage. He made some sketches which he called working drawings, and some notes which went under the name of specifications. There was not much competition in the trades. Bosses were capable mechanics and honest men, and would carry out the work intrusted to them with fidelity, no matter what the price. To lay out a plan and construct a building were the principal duties of an architect.

"Now, however, he is confronted with much more serious problems. Public taste has become trained and critical, and is constantly growing more so. The designer must now be very talented and thoroughly trained to obtain any permanent recognition.

"Business buildings are doubled and tripled in height, and are fireproof, where they were mostly low and combustible ten years ago. The constructor, therefore, must be a great engineer, wise, wary and of soundest judgment; for not only must he build safely, but not a pound of steel or a cubic foot of concrete or a brick too much can be tolerated. He must not only guarantee stability, but must produce it without the unnecessary waste of a single dollar. Economy is demanded by our keen, intelligent building public almost more rigorously than good plans or good art.

"Buildings are now supplied with complex heating, plumbing, sewerage, ventilation, elevators, pumps, tanks, engines, dynamos and electric lighting. Many have costly plants of all these kinds, none are without a part. The owners have a right to expect the very best of everything in every part, and perfect mechanical planning and application in each case. Therefore very expert mechanical and sanitary engineering are required to handle this part of the work.

"If many important works be on hand in an office at once, the mere handling of the business they produce requires much experience, and is enough to occupy the time of an able man.

"Passing over many other strong points that might be instanced, I have shown enough to prove that one man cannot himself attend to all the work of a modern city practice in America, and as we agree that 'attention to details' is necessary to success, it is plain that some method must be found to attain it, other than through a mixed practice by a single person in the old way.

"It is manifest that the successful practitioner of the future will be a specialist, or at the head of an organization of specialists. This is not an original statement on my part. It was made to the Illinois State Association of Architects some years ago in a letter written by Mr. Richard T. Crane, of Chicago, in response to a circular sent out by the association to prominent business men, asking for criticism on the then usual conduct of an architect's office.

"To design and construct a great office building, some stores and flats, some dwellings, some factories, a church, etc., in a manner to elicit praise from our critical building public, is beyond the powers of one man's brain and energy, if he attend to the details of all. If, therefore, a man or a firm is ambitious to carry on a great general practice, there must be in the organization:

"A very great designer.

"An exceptionally strong chief engineer.

"A sanitary engineer.

"A mechanical engineer.

"A business man.

"Each of these will have his hands full if he is faithful, and only with such an organization, I say again, can a large general practice live and keep going.

"But why look for a general practice when all conditions about us prove that specialists do better work, and in the long run get the greatest rewards. Medical practice has, of late years, gone into specialties, and its professors all say that never in its history has it advanced with such great rapidity, and never have the doctors been so superbly paid.

"Engineering is divided into specialties, and better construction in material and detail is the result, as everyone knows.

"Chemistry and mechanical engineering tell the same story. Specialists are the men who succeed and who are paid.

"In art the lesson is more plain still. The man who paints one thing is he who does it well, and who earns great fortune for now and undying fame for the future.

"Let one or more take up dwellings, others churches, others hotels, others business buildings. Let each aim to make the public say from San Francisco to New York, 'He is the master in that line, if you want the best, you must go to him'; and then, I ask, will there be any doubt about a great name for you, or a great fortune?"

These remarks were elaborated upon by the speaker and considerable discussion developed. The points raised by members were met with clear, forcible and analytical answers. As a result it will not be strange if the evening marks a turning point, to a greater or lesser extent, in the course of every draftsman present; seeming, as they did, to receive the remarks of the speaker not so much in the light of prophecy as the deductions of one who stood upon the heights of the profession with a mind trained to observe, and who clearly saw the tendency of the times.

It was evident that a large majority of those present were convinced of the truth of Mr. Burnham's remarks, and all were charmed by his clear, forceful arguments, and it was apparent that those who met the speaker for the first time carried away lasting impressions of

his thorough friendliness, which pervaded the meeting. That Mr. Burnham that evening largely added to his friends among the draftsmen, was evidenced by the hearty vote of thanks presented at the close of the session.

In the competition for an artist's house by the sea, rendered in sepia, fourteen designs were received. The committee awarded first place to W. B. Mundie, second place to T. O. Fraenkel, and third place to C. Bryant Schaefer. The competition as a whole is the best of the year, both in execution and in number of drawings.

Recent Legal Decisions.

PARTY WALLS.

In the absence of a special agreement or controlling custom providing otherwise, party walls must be capable of substantially similar use by each of the adjoining owners. *Hamman vs. Jordan*, Superior Court of New York City, 9 N. Y. Supp., 421.

TIME FOR FILING LIEN.

Where work under a building contract is abandoned by the contractor, either by the consent or through the fault of the owner, the building will be deemed completed so far as its relations to contractor's lien is concerned. *Shaw vs. Stewart*, Supreme Court of Kansas, 23 Pac. Rep., 616.

JUDGMENT ON MECHANIC'S LIEN UNDER INVALID STATUTE.

The mechanic's lien law of 1887 in Michigan having been declared unconstitutional, a judgment rendered under it cannot be sustained so far as it applies to the enforcement of the lien, but where it also provides for a personal judgment, that will be enforced. *Koepeke vs. Dyer*, Supreme Court of Michigan, 45 N. W. Rep., 142.

ARBITRATION.

Under a provision in a building contract whereby the difference between the parties as to the value of extra work shall be submitted to arbitrators; and if another party has sought to avail himself of the privilege to submit the controversy to arbitration, the defendant cannot urge such clause in the contract as a bar to an action to recover for such extra work. *Williams vs. Shields*, Common Pleas of New York City and county, general term, 9 N. Y. Supp., 502.

MEMORANDA ON PLANS AS EVIDENCE.

In a suit for the price of wall paper furnished in accordance with a plan of the house for which it was to be used, left with plaintiffs by defendant, where the question arises whether plaintiffs sent more paper than was ordered, the fact that the amount needed was marked on the plan does not prevent plaintiffs from proving by other evidence that the plan that the amount furnished had been ordered. *Platt vs. Hubinger*, Supreme Court of Errors of Connecticut, 19 At. Rep., 527.

Our Illustrations.

Design for City House, Loring & Phipps, architects, Boston.

Sketch from St. Contest, France, by John F. Jackson, Buffalo.

Old National Bank Building, Fort Wayne, Indiana. B. S. Tolan, architect.

House of Mr. D. Pleyte, Denver, Colorado. Varian & Sterner, architects.

Block of residences for Mr. H. R. Wilson, Chicago. H. R. Wilson, architect.

Sketches of house for Mr. William H. Rideing, Jamaica Plain, Massachusetts. Sanford Phipps, architect, Boston.

Sketch,

"There are seven pillars of gothic mold,
In Chillon's dungeons, deep and old."

—E. D. Martin, Chicago, del.

Accepted competitive design for a bronze statue to crown the Indiana Soldiers' and Sailors' monument at Indianapolis. George F. Brewster, Cleveland, Ohio, sculptor. The height of the statue is 22 feet; the pedestal, including the globe, is 8 feet; the torch is 8 feet above the head, making a total of 38 feet. The contract calls for its completion by June 1, 1891.

The new Carew office building, Cincinnati, Ohio. James W. McLaughlin, architect. The building is being erected upon the most prominent corner in the city, facing the fountain and esplanade, the lot formerly belonging to the Este estate, and has long been known as the "nasty corner." It fronts 100 feet on Vine street and 85 feet on Fifth street. Although but eight stories high, it will be 132 feet to the top of the parapet, and 180 feet to the summit of tower. The first two stories of iron and granite, and the remainder of front of red sandstone; cost about \$200,000.

PHOTOGRAPHURE PLATES.

(Issued only to subscribers for the Photographure edition.)

Residence of Mr. F. A. Macomber; architect unknown.

Residence of Mr. J. W. Gillis, Rochester, N. Y.; architect unknown.

The Stein Manufacturing block, Rochester, N. Y.; Chas. S. Ellis, architect.

Stable for Mr. William Hamlin, Buffalo, N. Y.; Marling & Burdette, architects.

View of residence of Mr. William Hamlin, Buffalo, N. Y.; Marling & Burdette, architects.

View of residence of Mr. William Hamlin, Buffalo, N. Y.; Marling & Burdette, architects.

The Genesee Valley Club House, Rochester, N. Y.; Du Fais & Canfield, architects, New York.

Mosaics.

ARCHITECTS John M. Van Osdel & Co., of Chicago, have removed to the Temple Court Building on Dearborn street.

ARCHITECTS Patton & Fisher, of Chicago, have gone a story higher in the Montauk Block, and fitted up a model set of offices.

NEW ORLEANS is to have public baths, with accommodations for men and for women and children in separate buildings arranged on either side of the Sanitary Association's flushing pump, which raises water from the river for flushing gutters.

THE first fellowship in architecture of Columbia College has been awarded to Arthur A. Stoughton, of New York City. It amounts to \$1,300, and the money is to be spent in travel and study abroad. Architects R. M. Hunt, C. F. McKim, T. Hastings and A. Rotch were the Awarding Committee.

THE Federal Court of Claims has finally dismissed, under the statute of limitations, the claim made by Alfred B. Mullett for compensation as architect of the building now occupied by the state, war and navy departments. A press report says that under ordinary circumstances the statute would have begun to run in 1875, when Mr. Mullett retired from service as architect of the treasury department, but that it was claimed, that, according to the custom of architects, the amount could not be computed until the work was finished, and this was not until 1888. The court, however, decided that the statute must be applied in the usual way, and referred to the Cologne Cathedral and the Washington Monument to illustrate the impracticability of making any different rule. The claim was for about \$150,000.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, ILL., June 10, 1890.

Commercial, manufacturing and investing interests generally are extremely anxious that the present favorable condition of things may continue throughout the year. The possibility of interruptions through some unannounced and unexpected agency is kept in mind. Overproduction is very carefully guarded against by the manufacturing interests. So far as the volume of business is concerned, no complaint can be made. The manufacturing capacity of the country is well taxed—so much so, indeed, that an increase of capacity is being made in almost every industry. There may be some exceptions to this rule, but it would be difficult to discover them. Building activity is being gradually resumed. According to the statements of the leaders of the striking carpenters, the eight-hour day has been secured this season to the carpenters in twenty-seven cities and towns, affecting 23,955 men in the trade. At present writing the men in nine cities are still out for the eight-hour day; six have compromised on nine hours. The nine-hour day has been established in seventy-two towns and cities. In all, the movement for shorter hours of labor has been successful, more or less, in 117 cities. The demand for building material of all kinds, but particularly iron, steel, lumber, shingles and lath and cement, and all interior finishing materials, has been very active during the spring, and production is still actively maintained, there being a feeling of confidence that summer and fall demand will compensate for the dullness of the past few weeks.

In financial circles money is abundant and loans are made, for the most part, at reasonable rates of interest. The country is deeply interested in the legislation aiming at increasing the supply of currency, and but little opposition is now being manifested by those who in years past regarded such measures as those now under consideration as not only exceedingly dangerous, but revolutionary. Opinions are changing among the money changers; they are recognizing the fact, long since recognized by simpler people, that an abundant currency is much less harmful than a restricted supply of money based purely on gold.

Business men in all sections of the country look forward to a summer and fall of exceeding activity. Railroad construction so far this year has been rather disappointing, but there is time enough yet to make up. The iron and steel mills throughout the country are crowded with work. The lumber interests are thriving. The coal miners are busy in nearly all sections, and the productive capacity of the country is more generally employed, and to a greater degree, than during last year. Stocks are low, prices are pretty well maintained, speculative movements are seldom attempted, and legitimate dealings, based upon actual requirements, are the rule. The present year promises to be the most prosperous one in American history.

Synopsis of Building News.

Buffalo, N. Y.—Architects Johnson & Archer: For Mr. E. Webster, a brick and frame residence; cost \$8,000. For H. L. Lyman, three brick residences; cost \$12,000. Also for George P. Smith, of Tonawanda, N. Y., a brick and stone business block; cost \$50,000.

Chicago, Ill.—The hope that two months ago was entertained by the carpenters' unions throughout the country, that the strike inaugurated at that time would result in the establishment of a recognized union of carpenters in this city, and give a strong impetus to similar movements in other cities, has disappeared before the strong and determined opposition of the Carpenters' and Builders' Association. Since our last report the situation has remained unchanged, except in the direction of the number of men employed by the members of the association and the new work begun in consequence. While before the strike it was estimated that nearly eight hundred carpenters were out of employment in the city, there have been over fifteen hundred applications for work at the association headquarters, and it is not known how many strangers have secured employment through the private advertisements of members upon the job. The result is, that while the demand for men is still good, as the contractors are commencing work that has been delayed by the strike, there is little difficulty in securing all the help necessary. This wholesale employment of presumably non-union men (though no distinction is generally made and no question except regarding proficiency is asked an applicant for work) has, of course, placed a large number of men out of work, most of them permanently, and for the past two weeks they have been desperate in their attempts to drive those willing to work from the buildings. Clubbing has been general, but with no fatalities, though in one case an old man was so badly clubbed and kicked as to make his recovery uncertain.

These outrages finally determined the Carpenters' and Builders' Association to seek protection from the law and the prosecution of all offenders. The mayor

was seen and promised ample protection with the coöperation of the association. This promise has been kept as far as the political aspect of the case would allow, though in some sections the police have been active as possible and arrested offenders, in contrast with others, who would walk through a crowd of strikers and, with a wink at the leaders, disappear. The association, however, have kept detectives employed, and engaged the best legal talent, and for the past ten days there have been from one to six cases in the courts each day. The leaders are arrested on state warrants for intimidation and assault. Several have been fined, but the endeavor will be as far as possible to take the cases before the grand jury. At the present writing the more important trials have not been finished, as continuances have been granted. No arrests have, as yet, been made under the Merritt conspiracy law, though this may in the near future become a feature of this struggle for liberty now being so successfully carried on by the carpenter contractors of Chicago. It may be interesting to note that since the strike commenced, or rather since the dummy association was formed and "arbitrated" with by the union, that a total of nine out of the two hundred members of the association have signed the union agreement and thirty new members have been received. The vigor with which all strikers interfering with men at work are prosecuted has led to a material cessation of this form of lawlessness, and the result is a victory for right and freedom that will give Chicago building operations uninterrupted progress for years to come.

Architects R. T. Newberry & Co.: For Gen. W. C. Newberry, a five-story manufacturing building on Huron street, near Wells; pressed brick and stone; cost \$20,000. For George F. Heimbrodt, a two-story flat building on Warren avenue, near Ashland; brownstone front. Also making plans for the Marquette (Mich.) Club House; two story and basement; frame; cost \$5,000.

Architect C. S. Frost has planned four dwellings, to be built on Indiana avenue, near Twentieth street, for Marshall Field; pressed brick and stone; furnaces, etc.; cost \$20,000. For George H. Bowen, a three-story residence at 3266 Prairie avenue; Bedford stone front; hot water heating, etc.; cost \$25,000. For C. L. Hutchinson, trustee, three three-story residences on corner of Twenty-sixth street and Prairie avenue; Bedford stone fronts, hot water heating.

Architects Lamson & Newman: For Lamson, Newman & Bushnell, six two-story dwellings on southwest corner of Robey street and Jackson boulevard; St. Louis pressed brick and Bedford stone; plate and beveled glass, furnaces, etc.; cost \$25,000. For M. O. Callaghan, two two-story flat buildings on Vincennes avenue, near Forty-third street; Bedford stone fronts, mantels, furnaces; cost \$16,000.

Architect M. L. Beers is preparing plans for a two-story residence, corner of Jackson avenue and Fifty-sixth street, for William Siver; Bedford stone front, furnace, etc.; cost \$6,000.

Architect George W. Maher is making plans for a two-story residence on Belmont avenue; boulders and shingles; hot water heating, etc.; cost \$9,000.

Architect C. S. Corwin has planned a two-story residence, to be built at 1066 Warren avenue; Anderson Roman brick and stone front; furnace, etc.; cost \$8,000.

Architect C. F. Sorenson is preparing plans for a seven-story hotel, 46 by 130 feet, to cost \$50,000, to be built on Chicago avenue, near Townsend street, for O. H. Ahlgren; pressed brick, brownstone, and galvanized iron bays, electric light, elevator, steam heat, etc. For O. Oliverson, a two-story flat building on Leavitt street, near Ewing Place; St. Louis pressed brick and Connecticut brownstone.

Architect J. A. Thain: For Mrs. Henrietta H. Loveland, a three-story flat building, to be built at 2713 Indiana avenue; Bedford stone front, steam heat, etc.; cost \$18,000.

Architect William Ohlhaber: For B. Foley, a two-story flat building, on Sheffield avenue near Center street; Anderson pressed brick and stone. For John Korazek, a four-story store and flat building, on corner of Dixon and Blackhawk; cost \$10,000; Anderson pressed brick and stone. For H. Lemke, a three-story and basement flat building, on Robey street, near Jane; St. Louis pressed brick and stone; cost \$6,000. For H. Hansen, a two-story store and flat building, corner of Avondale avenue and Hammond street; frame. For John Muller, a two-story dwelling at Austin; frame, stone basement, bathroom, mantels, furnace, etc.

Architects Schaub & Berlin: For Mrs. J. A. Trask, a three-story flat building on Jay street, near Belden avenue; La Salle pressed brick and stone.

Architect F. L. Lively: For B. F. Jacobs, planning a frame railway station, to be built at Evergreen Park.

Architect C. H. McAfee: Planning a two-story and basement stable, to be built corner Diversey and Frank, for the Lincoln Ice Company. For Thomas Boyle, a three-story residence, to be built on Diversey avenue near the park; Dell Rapids granite front.

Architect John Otter: For A. R. Varian, a three-story flat building on Fullerton avenue near Larrabee street; Indiana pressed brick and stone, bathrooms, mantels, steam heat, etc.; cost \$9,000.

Architect W. L. Carroll: For Ferdinand Guerra, a three-story flat building at 272 W. Harrison street; Bedford stone front, mantels, stained and beveled glass, etc.; cost \$8,000. For James L. Manning, a two-story residence, corner of Fullerton and Elston avenues; pressed brick, terra-cotta and stone front, mantels, stained glass, furnace; cost \$5,000. For Geoffrey Bros., a six-story hotel.

Architect Henry Sierks: For H. Fillmann, a two-story residence on Surf street; Bedford stone front, steam heat; cost \$16,000.

Architect H. M. Hansen: For Gerge Meyer, a two-story residence at 1781 Deming Court; Bedford stone front, copper trimmings, steam heat; cost \$16,000. For A. R. Da Costa, a two-story residence at 615 Cleveland avenue; stone front, furnace, etc.; cost \$7,500.

Architect Frederick Ahlschlager: For George C. Tetmeyer, a three-story flat building, corner of Union and Mark streets; St. Louis pressed brick and Bedford stone; cost \$7,000. For Reformed Congregation of South Holland, a frame church, stone basement, stained glass, pews, two furnaces, slate roof; cost \$15,000.

Architect C. L. Stiles: For J. F. Talbot, two three-story residences at 568 and 570 Washington boulevard; stone fronts, furnaces, etc.; cost \$16,000. Also finishing plans for Belden Avenue Presbyterian Church; red brick, with brownstone, stained glass, pews, steam heat; cost \$15,000. Also getting out plans for an eight-story apartment house, to be erected on the South Side; stone front, steam heat, elevator; to be fireproof, etc.; cost \$120,000.

Architect H. S. Jaffray is working on plans for two three-story flat buildings, to be built on Langley avenue near Forty-third street; Bayfield brownstone fronts, mantels, furnaces, etc.; cost \$16,000.

Architect L. G. Hallberg is taking estimates for a four-story apartment house, to be built on Superior street, for T. J. Shay; cut stone front, steam heat, etc.; cost \$30,000. For Dr. J. H. Salisbury, a two-story residence, on Adams street near Western avenue; Indiana pressed brick and stone, furnace, etc. For John A. Larson, a five-story store and flat building, at 303 to 309 Wells street; Collinsville pressed brick and stone front; cost \$50,000. For O. Adams, eight three-story frame apartments, to be erected at Longwood.

Architect H. B. Wheelock: Finishing plans for four-story printing establishment, to be built at 57 Third avenue. Also just started on Congregational Church at Decatur, Illinois.

Architects J. F. & J. P. Doerr: For Julius Cook, planning a four-story apartment building, to be built corner of Morgan and Erie streets; stone front, elevator, etc.; cost \$30,000. For John A. Adams, a three-story store and flat building corner of Twenty-ninth and Butler streets; Anderson pressed brick and Bedford stone; cost \$16,000. For C. A. Lodelius, three residences at Thirty-eighth street and Prairie avenue; Bedford stone fronts, furnaces, mantels, etc.; cost \$15,000.

Architect O. W. Marble: For William H. Pruyn, four three-story residences on South Park avenue, near Thirty-fourth street; Bedford stone fronts; cost \$50,000. For John W. Hersey, a three-story flat building on West Monroe street; Anderson pressed brick and brownstone; cost \$20,000.

Architect H. R. Wilson: For George W. Park, a three-story residence on Grand boulevard, near Forty-second Place; Salem stone front, furnace, mosaic tiling, electric light, etc.; cost \$15,000.

Architect M. E. Bell: For Mrs. Marie Wilkie, taking estimates for a handsome three-story residence, to be erected on corner of Wrightwood avenue and Sidney Court; Waupaca granite front and sides, copper and wrought-iron work, steam heat; cost \$50,000.

Architect John Duncan: For J. H. Neusome, three residences, to be erected on Forest avenue, near Thirty-ninth street; brownstone fronts, furnaces; cost \$22,000. For C. C. Beam, a five-story store and flat building, to be built on

Halsted, near Polk; pressed brick, stone and terra-cotta; elevator, steam heat; cost \$50,000. For a syndicate, a six-story store and flat building, to be erected on Clark street near Harrison; elevators, steam heat, pressed brick, terra-cotta, bathrooms, etc.; cost \$40,000.

Beers & Lane have planned a railway station, to be built at Roodhouse, Illinois, for the C. & A. Railway Co.; cost \$25,000.

Architect William Thomas: For J. K. McGill, a three-story residence on Adams street; Anderson pressed brick and stone; cost \$10,000. For James McGraw, a three-story residence on Adams near Oakley; St. Louis pressed brick and Bedford stone; cost \$12,000. For A. Flannagan, a two-story flat building at 927 Polk street; cost \$6,000. For Louis Carter, planning a three-story flat building, to be built corner of Ashland and Nebraska; Bedford stone front, copper bays, steam heat; cost \$17,000.

Architect Swen Linderoth: For C. O. Lindstrom, planning six dwellings, to be built at Austin; frame, furnaces; cost \$18,000. For H. Pearson, a three-story flat building on W. Erie street; cost \$9,000. Also making plans for a seven-story factory, size 150 by 125 feet; cost \$70,000; steam heat, elevators, cement floors, etc.

Architects Ostling Bros.: Planning a four-story flat building, to be built corner of Franklin and Locust; Bedford stone front; cost \$40,000.

Louis Martens: For Mrs. Flora Caruthers, a four-story apartment and store building, on northeast corner of Schiller and Clark; cost \$50,000. For Williams Brothers, at Antioch, Illinois, a double store building; to cost \$18,000; Collinsville pressed brick and stone, steam heat, elevator, etc. For C. H. Martens, three residences, to be built on Ashland boulevard, near Polk street; Bedford stone fronts, furnaces, etc.; cost \$18,000.

Architect R. G. Pentecost: For John Burke, on northeast corner of Greenwood avenue and Fifty-fourth street, a three-story residence; brownstone front, hot water heating; cost \$18,000; making plans. Also planning a three-story residence for Edward Mendel, to be built at 3930 Grand boulevard; stone front, hot water heating; cost \$14,000. For C. R. Cave, a three-story residence, to be erected at 3932 Grand boulevard; Kasota pinkstone front; cost \$14,000. Also preparing plans for a block of five three-story stores and flats, to be erected at northwest corner of Thirty-first street and Bonfield avenue, for Mrs. De Lancy; pressed brick and stone; stained and plate glass, bathrooms, mantels, etc.; cost \$40,000. For Jacob Weil, twelve three-story stores and flats on State and Forty-seventh; the front will be 288 feet, constructed of buff Bedford stone, with copper bays and cornices; all the improvements will be put in; cost \$120,000.

Architect J. J. Egan: Finishing plans for Catholic Church, to be erected at Des Moines, Iowa; Bedford stone all round; cost \$70,000. Also completed plans for Rev. Bishop Scanlan, residence at Salt Lake City; steam heat, etc.; cost \$18,000. Planned a three-story residence for O. S. Lyford, on Lake Park avenue; Bedford stone front; cost \$15,000. Getting out plans for a modern apartment house, to be built on Vernon avenue near Thirty-fifth street; Bedford stone, elevator, steam heat; cost \$30,000. Will make plans for addition to Mercy Hospital at Dubuque, Iowa; to cost \$50,000. Also working on plans for Academy of the Sacred Heart, to be erected at Ogden, Utah; pressed brick and stone, steam heat and modern improvements; cost \$50,000. Planning a three-story flat building for B. Heeney, to be built on May street; cost about \$8,000.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall.

I am not going to write about strikes, for the papers have been full of them, and consequently what I would say might be a repetition. The weather also will be passed and left to "Old Probabilities." But what I will say is, that Cincinnati has no reason to feel proud of her building statistics. There may be very good reasons for the very small aggregate, but \$4,143,214 is not what should be expended in a city of 325,000 inhabitants for building. It may be that for fear of being taxed, the returns to the inspector are made small; this I cannot say. For brick and stone structures, 594 permits; for frame, 794 permits, and for alterations 707 permits were issued, resulting in an income of \$8,066.51 to the inspector's office. The indications this year are that totals and receipts will be increased alike, providing strikers do not scare the hen off the nest.

Architect A. O. Elzner is preparing plans for the remodeling of A. J. Season-good's house. Materials to be used are brick, stone, mosaic tiling, hardwood mantels, stained glass, etc.; cost not yet known. Also for Charles H. Kellogg, Jr., a residence. Materials, pressed brick, stone, molded brick, plumbing, hot water heating, stained glass, slate roof, etc.; cost \$15,000.

Architect W. W. Franklin reports as follows: For Charles Hofer, Esq., of Avondale Ohio; materials, frame, hardwood finish, wood mantels, plumbing, stained glass, tiling, electric bells, etc.; cost \$6,000. For Nathan Meis, a residence; materials, pressed brick, blinds, hardwood finish and mantels, furnaces, plumbing, stained glass, laundry fixtures, slate roof, etc.; cost \$9,000. For Hon. John B. Mosby, mayor, a residence; materials, pressed brick, slate roof, stained glass, furnaces, electric bells, hardwood finish, plumbing, wood mantels, etc.; cost not given. For F. A. Smith, Esq. (H. D. Smith & Co.), a residence; materials, stone, frame, pine finish, wood mantels, furnaces, plumbing, stained glass, slate roof, etc.; cost \$9,000. For Robert C. Price, Esq. (Johnston Building), a residence; materials, stone, shingle, blinds, mantels, furnace, hardwood, stained glass, etc.; cost \$10,000.

Architect H. E. Siter reports for Charles Schreiber (L. Schreiber & Sons), a residence; materials, frame, furnaces, pine and hardwood finish, mantels, plumbing, stained glass, gas fixtures, blinds, slate roof, etc.; cost \$7,000. For Bradford Shinkle, Esq., Covington, Kentucky, a residence; materials, frame, hardwood finish, mantels, plumbing, stained glass, electric bells, etc.; cost \$10,000. For Edmund E. Miller, Esq. (Third and Walnut), a residence; materials about the same as the above; cost \$10,000.

Architect A. C. Nash is making the plans for a seven-story, stone front addition to the St. Nicholas Hotel, E. N. Roth, proprietor. It will prove quite an addition to the architecture of our city. Cost not known.

Architects Des Jardins & Hayward report for the German Lutheran Church, Walnut Hills, city, a church edifice; materials, blue limestone, stained glass, pews, pine finish, furnaces, slate roof; cost \$12,000. For Dr. M. T. Key, a residence; materials, pressed brick, blinds, wood mantels, hardwood finish, laundry, stained glass, tiling, plumbing, tile roof, etc.; cost \$10,000.

Architects S. Hannaford & Sons report for Mr. R. H. Crane (R. H. Crane & Co.) a residence; materials, frame, hardwood finish, mantels, furnace, stained glass, plumbing, blinds, slate roof.

Architect Edwin Anderson has drawn plans for a dwelling and stable for Charles H. Miller, Cumminsville (city); materials, brick; mantels, furnace, blinds, laundry, plumbing, stained glass, etc.; cost \$7,000. For F. G. Huntington, Esq., a row of dwellings (five); materials, pressed brick, blinds, plumbing, laundry, furnaces, pine finish, etc.; cost \$25,000.

Architects G. & A. Brink have drawn plans for a store and flat building for M. Rothschild (Fifth and Race); materials, brick and frame, pine finish, blinds, mantels, grates, plumbing, electric bells, etc.; cost \$10,000. For Anton Zimmermann, a tenement house; materials, brick, pine finish, bells, blinds, iron mantels, plumbing, gas fixtures, tin roof, etc.; cost \$9,000.

Architect John H. Boll reports for Thomas Gannar, a flat and store; materials, iron, brick, blinds, iron and slate mantels, plumbing, electric bells, tin roof, etc.; cost \$6,000.

Architect J. Rueckert has prepared plans for a residence for William Grautman (board of education); materials, frame and shingles, blinds, pine finish, wood mantels, plumbing, stained glass, gas fixtures, laundry, etc.; cost \$7,000. For A. & W. Amlung, a store; materials, iron, pressed brick, store fixtures, elevator, tin roof, etc.; cost \$7,000.

Architect William Martin Aiken reports for Fern Bank, Ohio, a town hall; materials, brick, slate roof, furnaces, pine finish, blinds, plumbing, etc.; cost \$12,000. Remodeling Christ Church (P. E.). This is one of our old churches, and in order to keep pace with the times and its requirements will be remodeled. The nature of the improvements has not been decided upon definitely, the sum, \$12,000, subscribed, not admitting, however, of very elaborate work.

Cleveland, Ohio.—Building continues quite brisk, the strikes not having interfered with business to any degree.

Architects Hardway & Williams: For C. H. Bulkley, interior alterations to store and hotel building; cost \$15,000. For H. E. Hays, a two-story frame dwelling, size 38 by 39 feet; cost \$7,000. For George Callings, two-story frame dwelling, size 43 by 48 feet; and barn, size 19 by 27 feet; cost \$18,000.

Architects Lehman & Schmitt: For Joseph Hays, a five-story store building, size 45 by 76 feet, brick and stone; cost \$15,000; builder, W. R. Thomas. For L. Einstein, a two-story dwelling, size 35 by 66 feet, brick and stone; cost \$10,500.

Architect A. M. Smith: For Bradley estate, a four-story store and dwelling block, size 30 by 123 feet, brick and stone; cost \$25,000.

Architect B. F. Van Develde: For the Sisters of St. Joseph, a two-story brick convent, size 41 by 38 feet; cost \$12,000.

Architect Clarence O. Arey: For C. H. Carr, a two-story frame dwelling, size 30 by 50 feet; cost \$6,500.

Architects Cudell & Richardson: For Cleveland City Cable R. R. Company, a two-story office and power-house building, size 85 by 188 feet, brick and stone; cost \$50,000.

Architect J. W. Russell: For John E. Ensign, a two-story frame dwelling, size 25 by 45 feet; cost \$5,000. E. A. Cass, two two-story frame dwellings, size 22 by 40 feet; cost \$8,000; builder, C. A. Preston.

Architect F. C. Bate: For Pain & Akers, alterations for frame hotel; cost \$4,600. For Alford Arthur, a three-story store and dwelling block, 64 by 66 feet, brick and stone; cost \$18,000.

Columbia, Mo.—Architect F. P. Miller: For the St. Paul's Methodist Episcopal Church, a new brick church, size 40 by 65 feet; cost \$4,500; also additions to the Calvary Episcopal Church; cost \$4,200.

Denver, Colo.—Architects Huddart & Jacobson: For the school board of District No. 1, a four-roomed brick and stone schoolhouse, size 86 by 62 feet; cost \$26,700. For J. W. Armstrong, a two-story residence, brick and stone, size 42 by 60 feet; cost \$13,000. For Morse Block, a two-story and basement dwelling, brick and stone, size 50 by 75 feet; cost \$26,000. For J. S. Cleveland, a two-story pressed brick and stone residence, size 40 by 81 feet; cost \$19,600. For J. C. Nevin, a two-story residence, brick and stone, size 26 by 50 feet; cost \$5,300. For S. Mc-Clair, a brick and stone terrace, size 102 by 70 feet; cost \$36,000. For G. Bonn, a two-story residence, brick and stone, size 26 by 50 feet; cost \$5,300.

Detroit, Mich.—The "bone of contention" is, here as elsewhere, the recognition of the union. The position of the employing carpenters and members of the Exchange is set forth in the following resolution:

"WHEREAS, In the existing state of society, when all classes of mechanics are forming unions for the promotion of their peculiar interests, and the protection of their rights in the community, it becomes the duty of the employers, also, to unite in protecting themselves against any unjust or unreasonable demand that may be made upon them; therefore, we, the carpenter contractors and manufacturers of the city of Detroit, do

"Resolve, 1. That we assert our right to employ workmen regardless of their being members of societies or not. 2. That we assert our right to fix the compensation of labor and to pay workmen according to their usefulness and according to the amount of labor they can perform. 3. We shall not tolerate any authority in our shops or buildings but our own. 4. All work exceeding ten hours shall be paid for at the rate of time and one-half, or fifty per cent additional pay per hour. 5. That for the year 1890, nine hours shall constitute a day's work. 6. That for the year 1890 carpenters shall be paid according to their efficiency, but in no case more than 30 cents per hour, nor less than 20 cents per hour. 7. That we will treat with our men as individuals only. 8. That we assert our right to employ as many apprentices as we deem proper."

A prominent member of the Exchange told your correspondent today that none of the larger or competent contractors had signed the scale, and that he was ready to take any work which might be placed in his hands; and that none of the older contractors would sign the scale, all reports to the contrary notwithstanding.

Still the building interests of the community have received a blow from which it will take many months to recover.

Architects Donaldson & Meier: For J. H. Haberkoon, a two-story brick dwelling, size 26 by 60 feet; cost \$8,000.

Architect E. W. Arnold: For William Brown, a brick residence; cost \$7,000. For Charles R. Whitman, at Ann Arbor, a brick dwelling; cost \$5,000. For the Episcopal Church, at Hickory, N. C., a brick and stone church; cost \$10,000. Also for H. C. Parke, of the same place, a frame residence; cost \$5,000.

Architect Henry Englebert: For Mrs. Lonsberg, three two-story stores and dwellings, brick; cost \$10,000. For Capt. William Wilson, a three-story brick store and dwelling block; cost \$12,000. For the St. Francis Parish, a brick chapel and schoolhouse; cost \$18,000.

Architect Harry J. Rill: For William Wolfe, a two-story brick dwelling block, size 106 by 90 feet; cost \$12,000. For Henry W. Holcombe, a three-story double dwelling, brick, size 38 by 50 feet; cost \$7,500. For K. Bell, six three-story brick dwellings, size 83 by 95 feet; cost \$16,000.

Architects Malcomson & Higginbotham: For The National Christian Woman's Board of Missions, at Ann Arbor, a mission building of boulder stone, red slate roof, size 65 by 100 feet; cost \$20,000.

Architect Gordon W. Lloyd: For Reid & Whitney, a three-story brick manufacturing building, size 100 by 120 feet; cost \$37,500.

Duluth, Minn.—A large hotel will be erected here this season at a cost of \$250,000.

Grand Forks, N. Dak.—The outlook here is very promising; the recent rains having put new life into all branches of business.

Architect B. W. Fisk: For Burke Corbet, two-story frame residence, size 38 by 50 feet; cost \$10,000. For Judge Curless, two-story dwelling, size 36 by 46 feet; frame, with hot water heat; cost \$6,000. For J. E. Clifford, two-story frame dwelling, size 34 by 36 feet; cost \$4,000. Also for the Hon. Alex. McKinnon, at Croakston, Minnesota, a three-story block, size 50 by 100 feet; pressed brick and Portage stone; cost \$20,000; contracts not let.

Grand Rapids, Mich.—Architect B. L. Gilbert, of New York. For Dr. Charles Hazeltine, a stone and frame residence; cost about \$15,000.

Architect T. R. Williamson, of Philadelphia: For the Fuller estate, a six-story business block; pressed brick and stone; estimated cost \$50,000.

Architect G. O. Fairfield: For W. A. Bakey, a frame dwelling; cost \$10,000.

Jackson, Mich.—Architects Johnson & Archer: For L. H. Field, a brick and frame residence; cost \$10,000.

Pittsburgh, Pa.—Architects Longfellow, Alden & Harlow, of Boston, have plans for alterations and additions to Farmers' Deposit and National Bank; contract not let. For J. J. Vandergrift, an office block, size 60 by 110 feet, granite.

Architects Bickel & Brennan: For Edward Kelly, four four-story store buildings with pressed brick fronts; cost \$23,000.

Rochester, N. Y.—Architect J. G. Cutler is preparing plans for a stone and timbered residence for H. C. Brewster, to be built on corner East avenue and Bowen street; the sanitary and electric work will all be of the very best, and the house will be finished in hardwood cabinet work; cost \$23,000. Also plans for alterations to Mr. R. A. Seeley's house at Lake View Park; cost \$8,000. A frame house for George B. Watkins; to cost \$7,000. A stone and frame residence, to be built in Watertown, New York, for Mr. B. L. Taylor; cost \$20,000. Two frame houses for J. G. and J. W. Cutler; cost \$8,000 each.

Architect A. E. French: For Dr. F. D. Wheeler, a two-story residence, size 32 by 64 feet, brick and stone; cost \$8,000.

Architects Jay Fay and O. W. Dryer: Plans for a block of four flats for Mrs. Sophia Davis; to be four stories high, of stone and brick; cost \$9,000. Double house for Mr. Charles Sherman, frame; to cost about \$6,000.

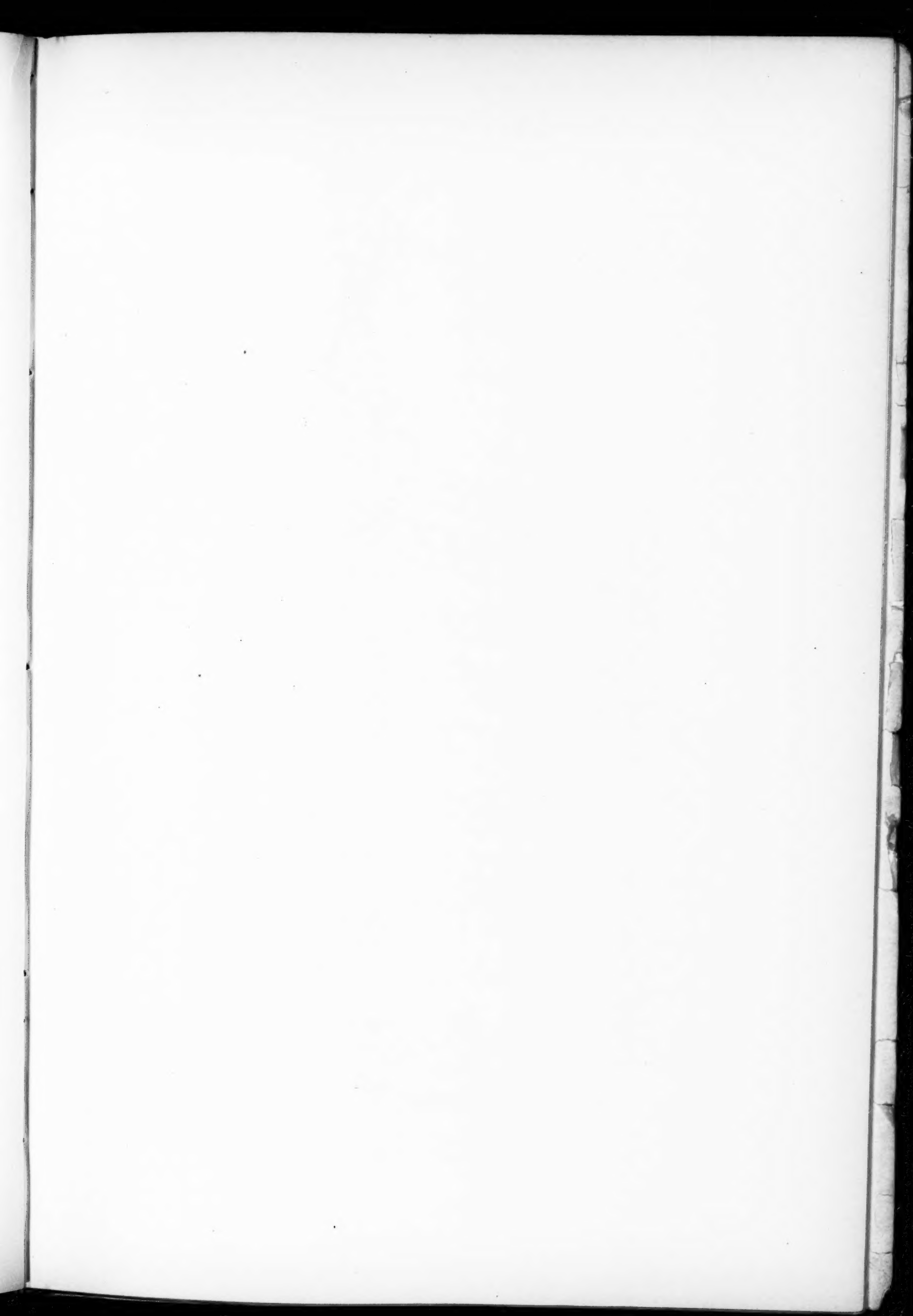
Architect Otto Block: Plans for new front to the Lutheran Evangelical Church; will contain vestibule, library, galleries, stairs, etc.; to be built of stone, brick and terra-cotta; cost \$6,000. Plans for St. Stanislaus Church, size 40 by 80 feet, frame, seating capacity 375; cost \$10,000. Frame house for J. B. Alexander; cost \$5,000. Frame house for Mrs. Erbe; cost \$8,000. Roman Catholic School at Charlotte, New York, additions 34 by 54 feet, two schoolrooms and an assembly hall; cost \$5,000. Frame house for Frederick Schaffner; cost \$5,000.

St. Louis, Mo.—Architect G. G. Baldwin has prepared plans for a German church to be built here this season.

Somerset, Ky.—Architects Johnson & Archer: For the city board, an eight-room brick schoolhouse; cost \$19,000; also a four-room brick schoolhouse; cost \$7,000.

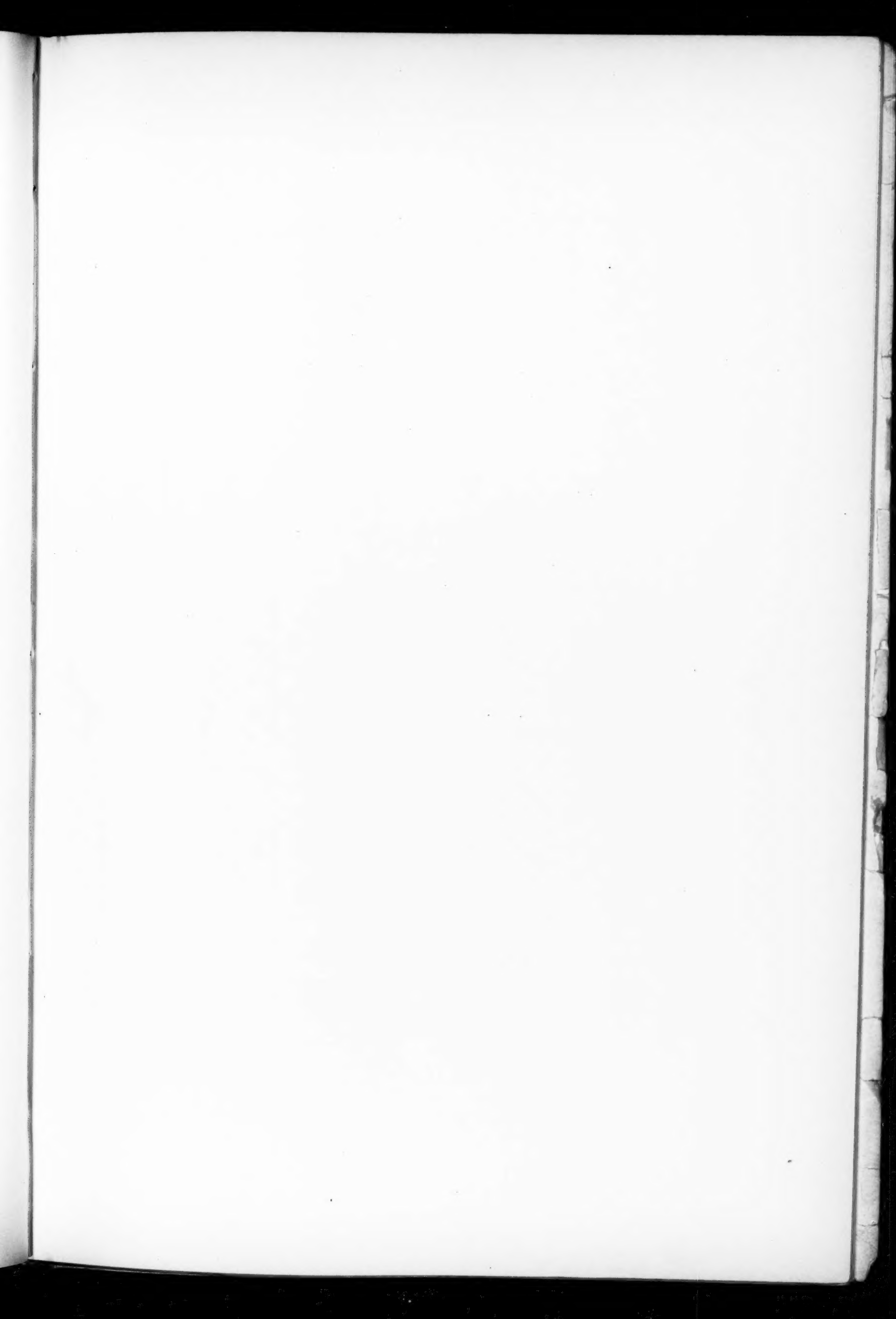
St. Louis, Mo.—Architects Bothe & Raterman: For the St. Louis Bowling Association, a two-story brick club house; cost \$8,000. Rev. H. Hirschstein will erect a two-story brick church and schoolhouse; cost \$5,900.

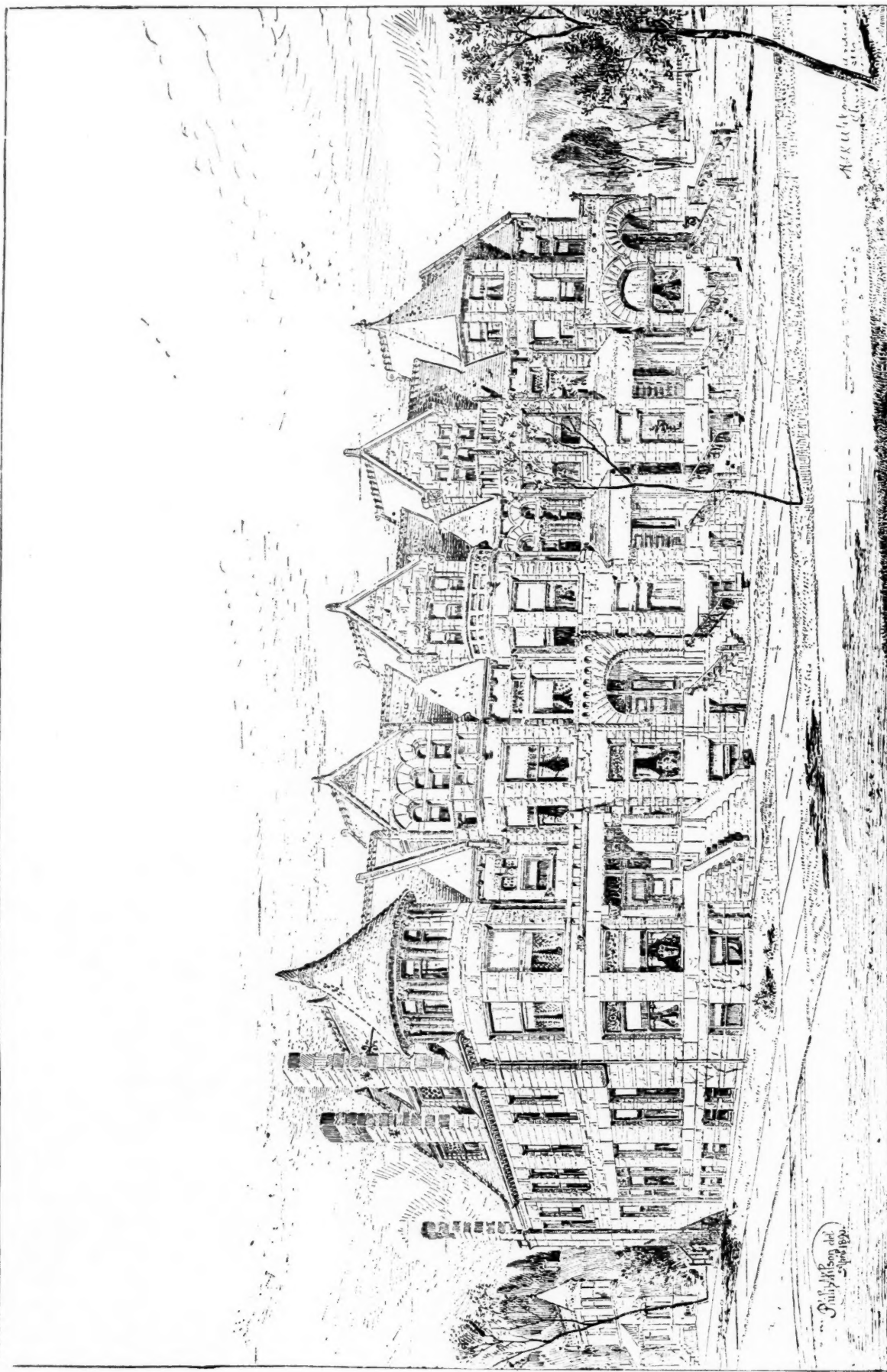
Tacoma, Wash.—Architects Proctor & Dennis: For John B. Hudson, a store building, brick and stone; cost \$45,000.



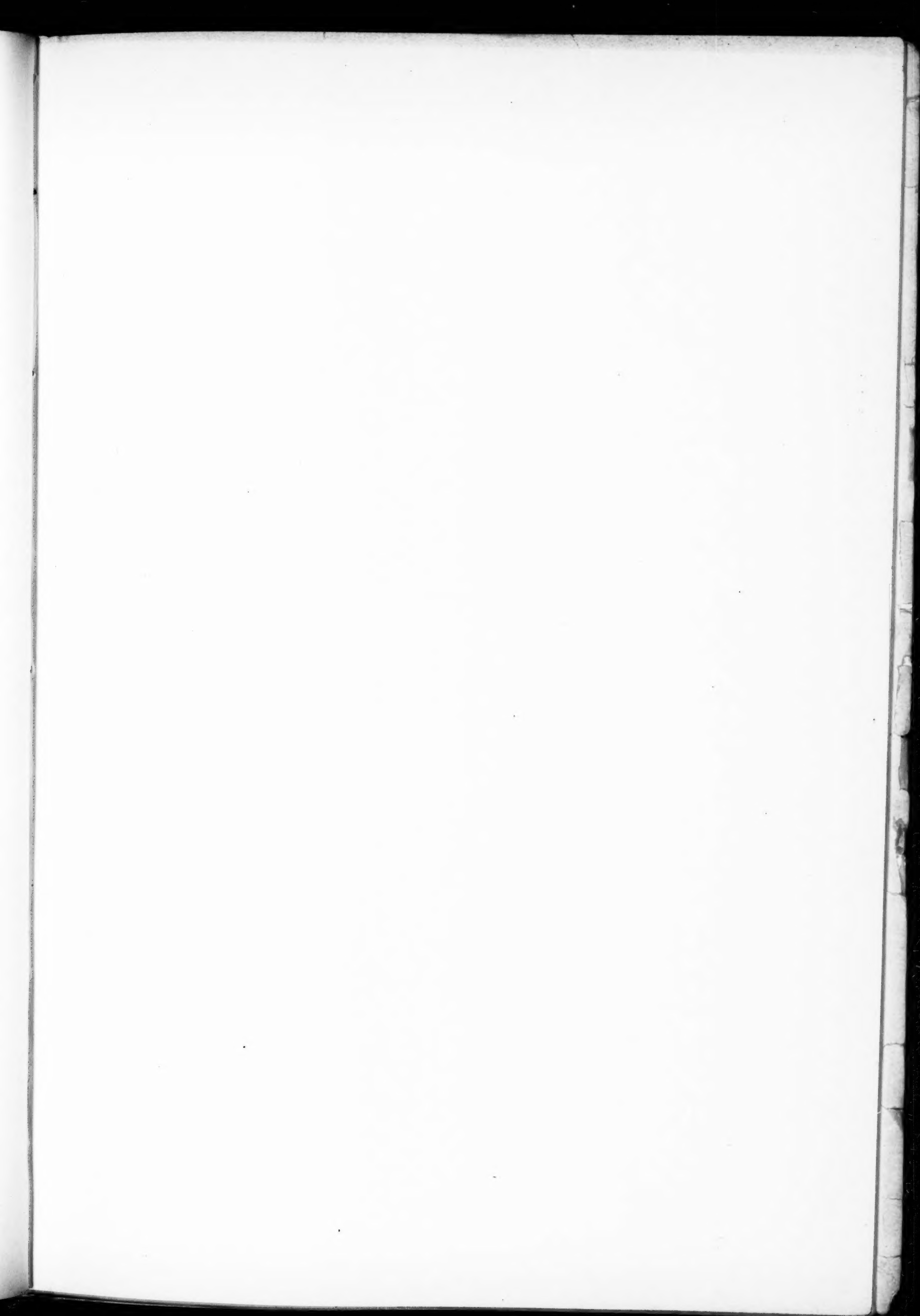


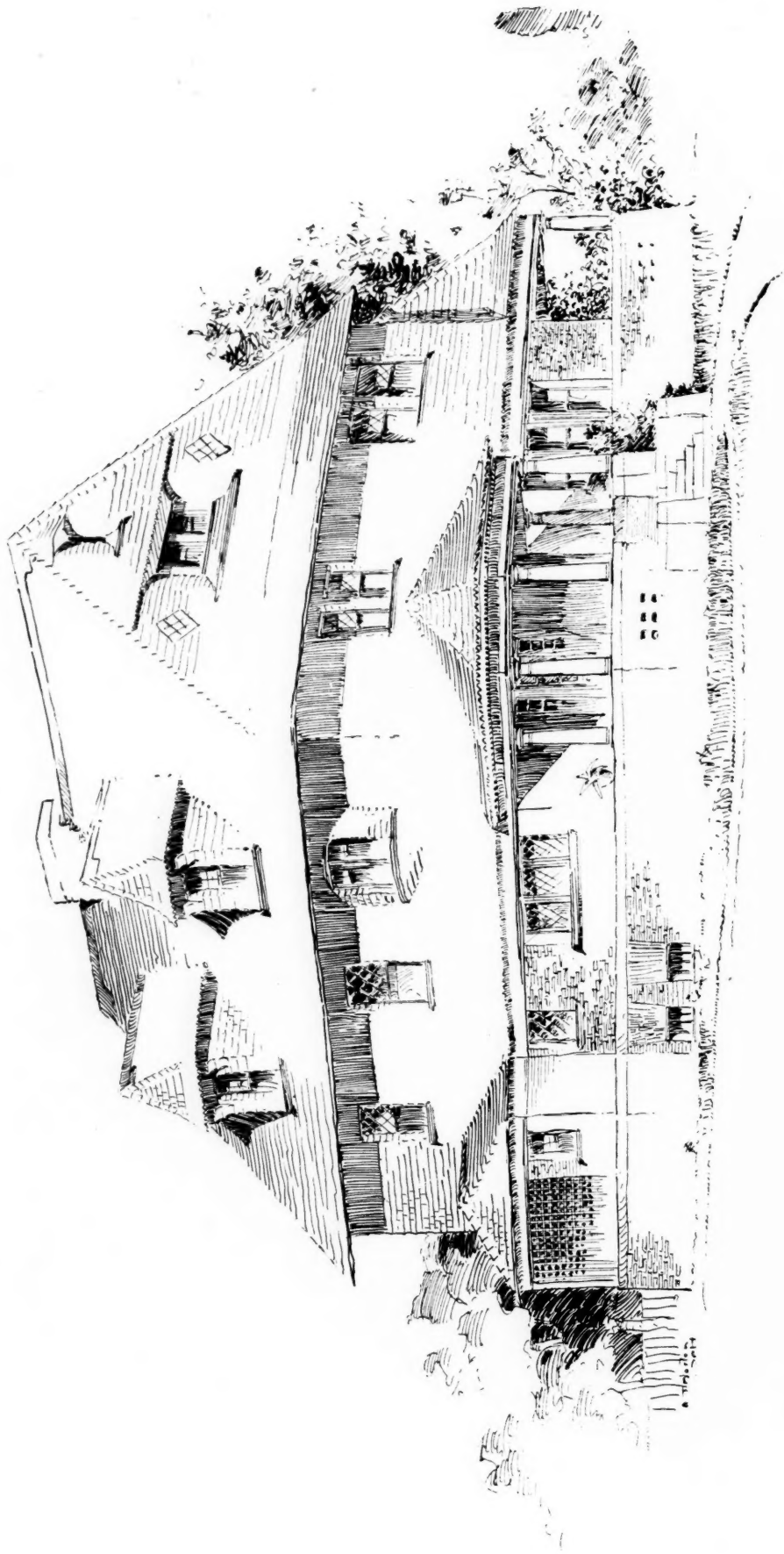
THE NEW CAREW BUILDING
COR OF VINE & 45TH STS.



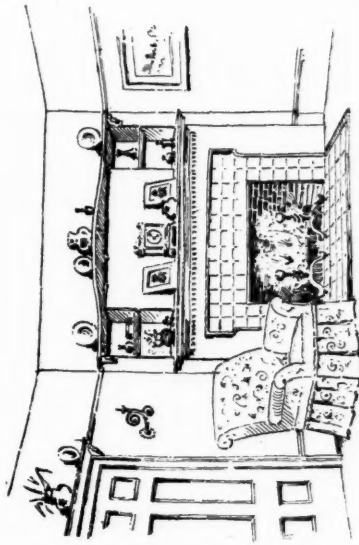


BLOCK OF RESIDENCES FOR H. R. WILSON, CHICAGO.
H. R. WILSON, ARCHITECT.

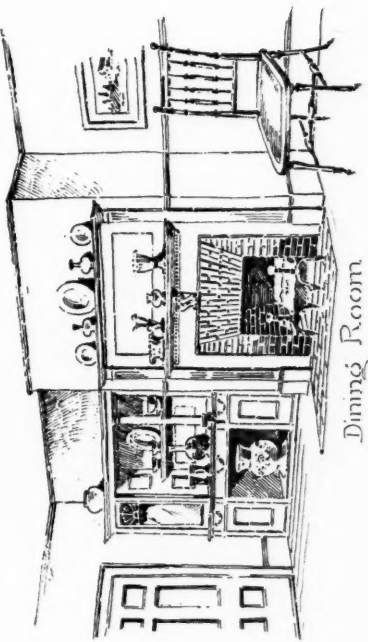




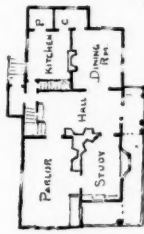
HOUSE FOR MR. D. PLEYTE - DENVER.
Variation by Sterner Architects



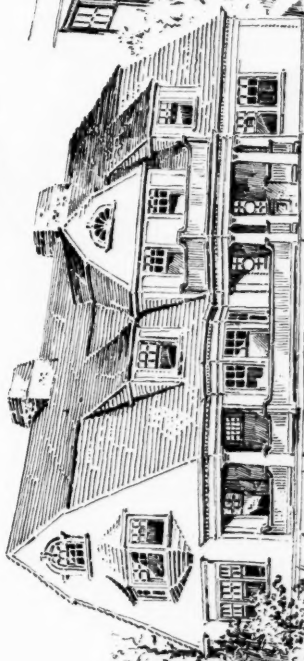
Study



Dining Room



First Story

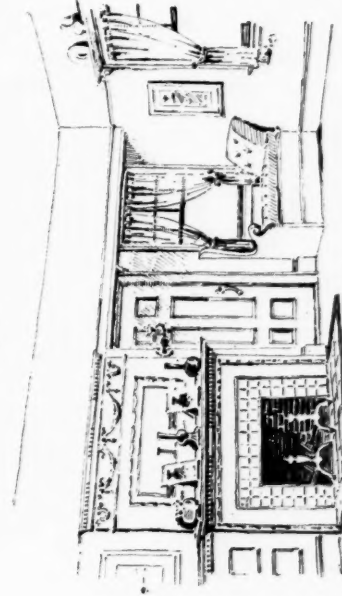


South East View

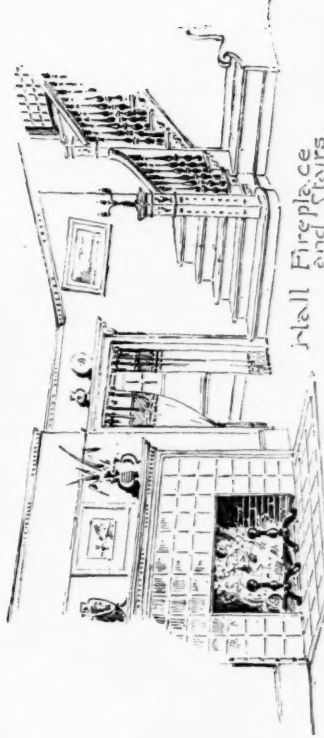


Study Book case

South West View



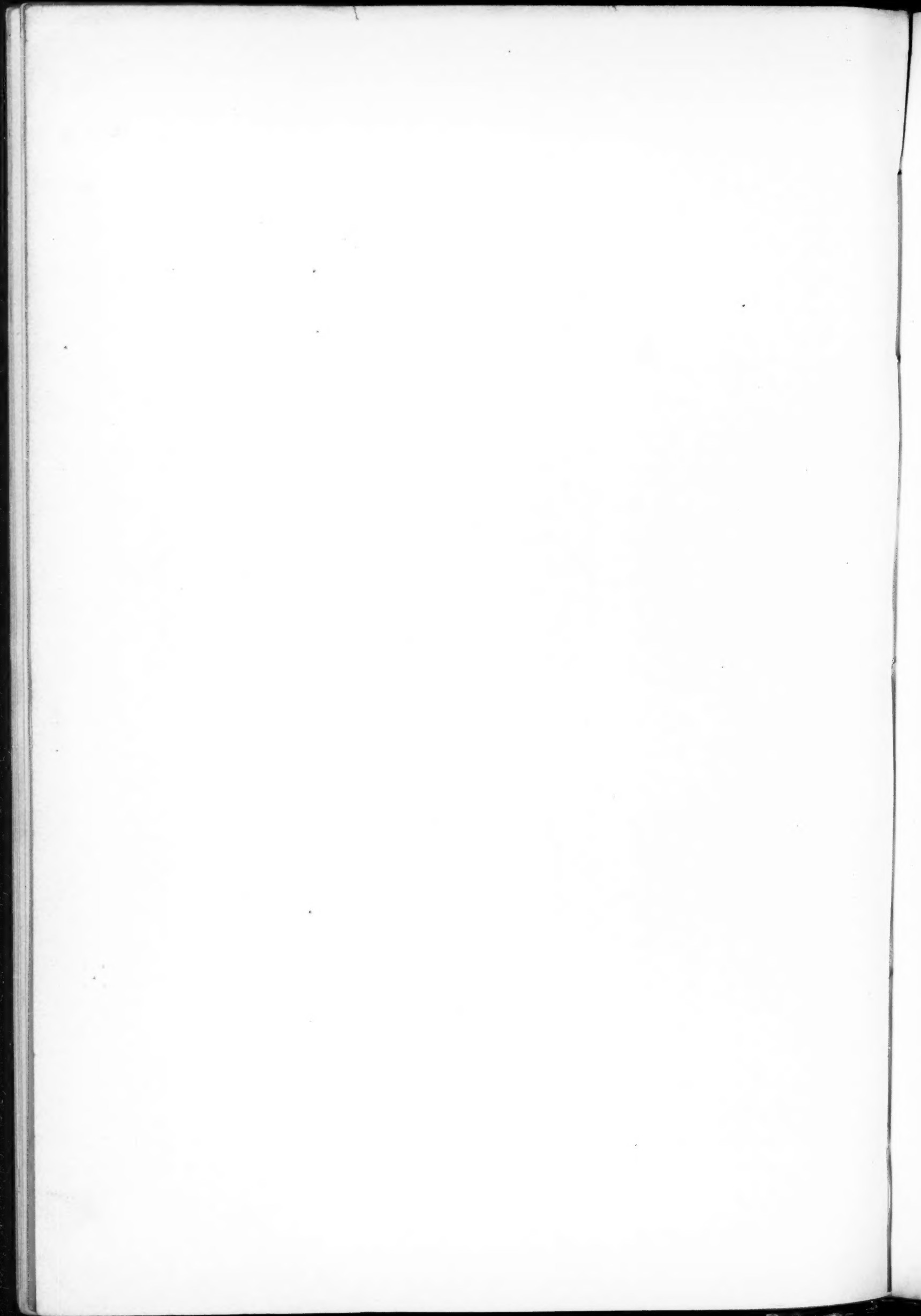
Parlor

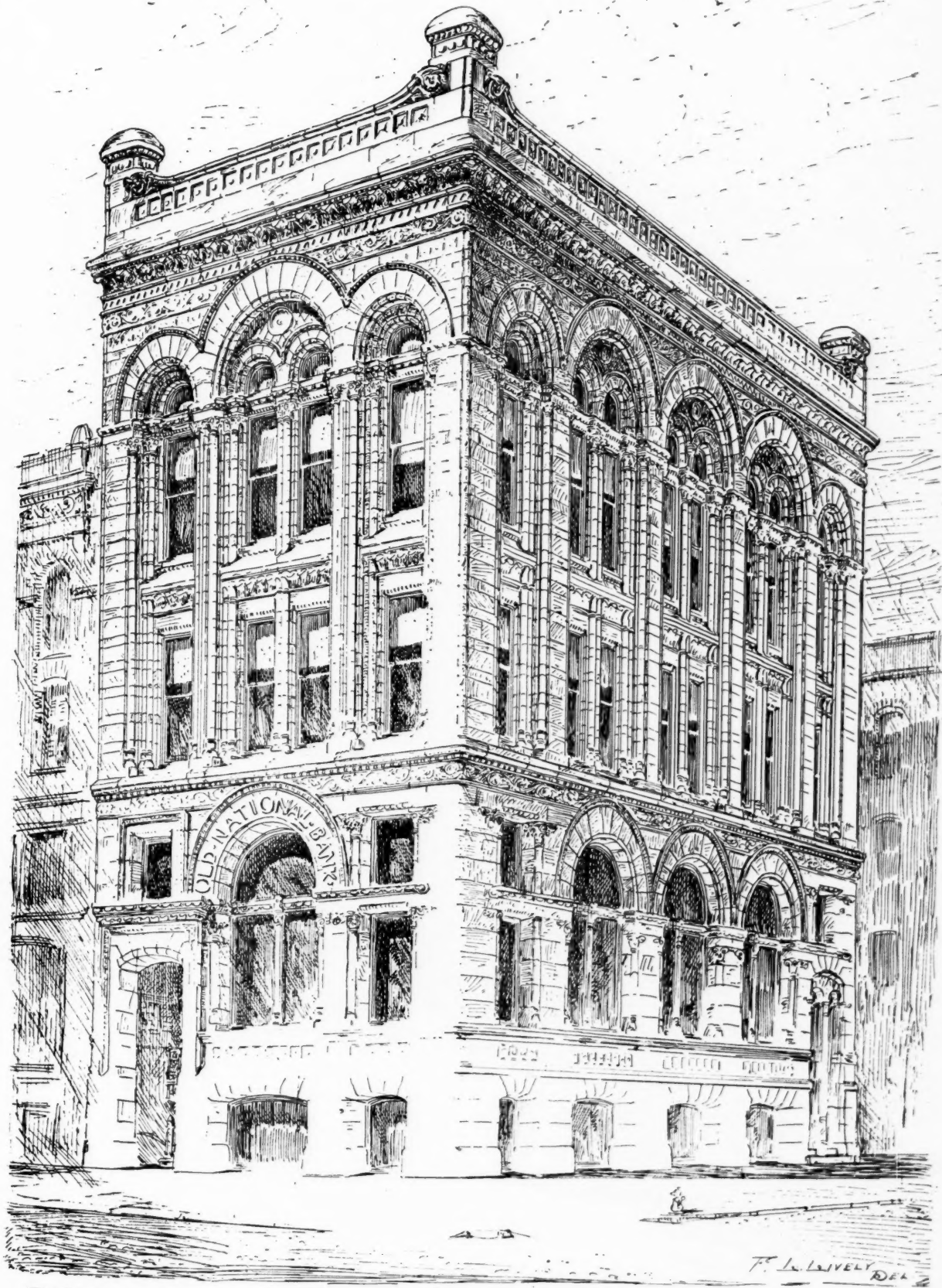


Hall Fireplace and Stairs

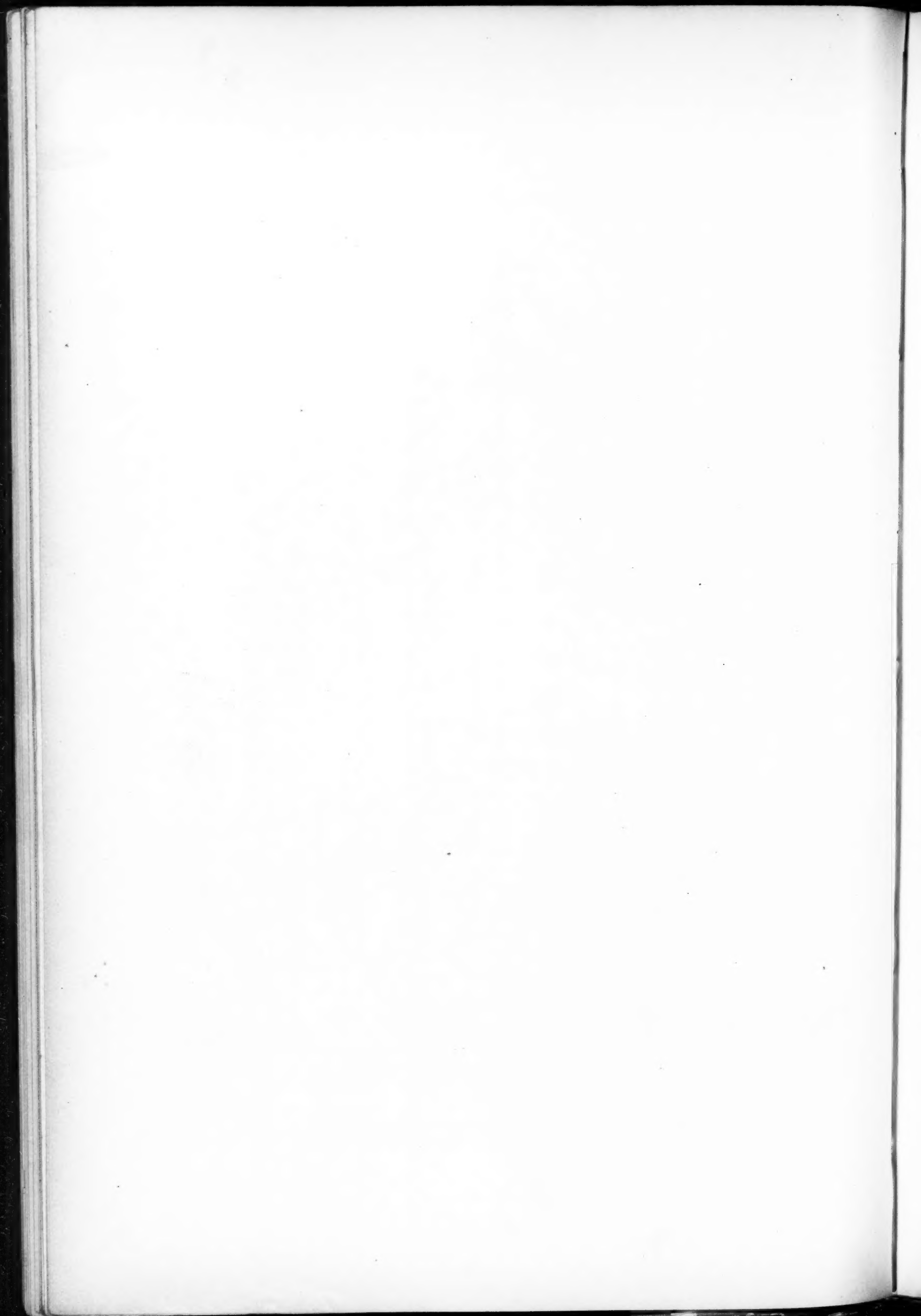
Sketches of House

for W. H. RIDEING - JAMAICA PLAIN - MASS..
Sanford Phipps - Architect. Boston.

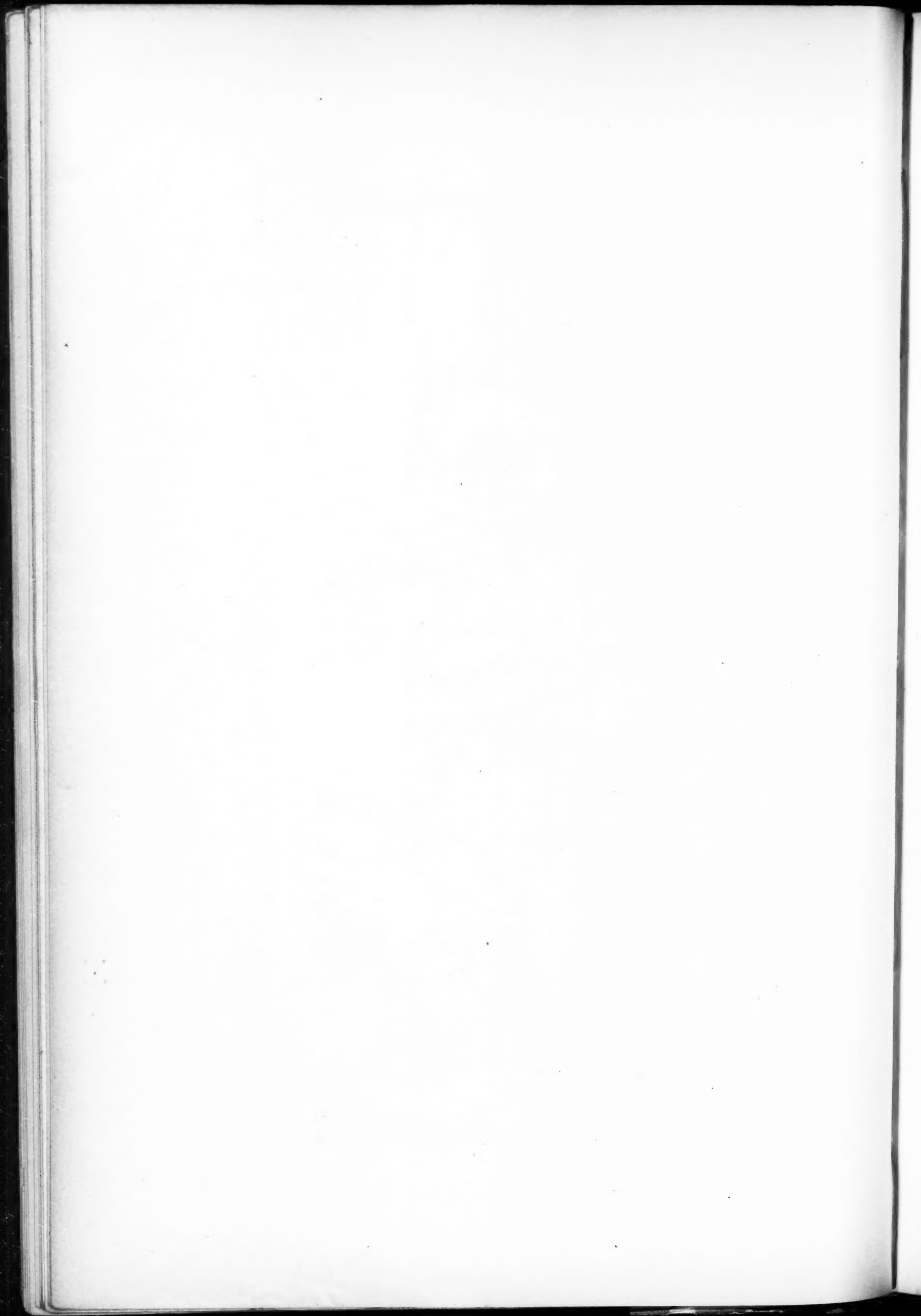




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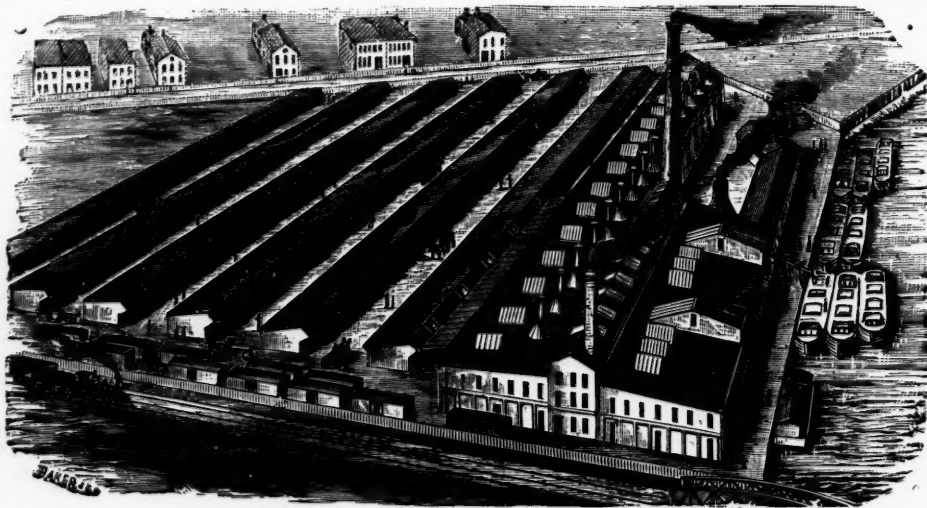


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