

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXVI.

OCTOBER, 1895.

No. 8



A Monthly Journal Devoted to
ARCHITECTURE,
CONSTRUCTION, DECORATION AND FURNISHING
IN THE WEST.

PUBLISHED BY THE INLAND PUBLISHING CO.,
19 Tribune Building, Chicago, Ill.

L. MULLER, Jr., Manager. ROBERT CRAIK MCLEAN, Editor.

SPECIAL CONTRIBUTORS:

DANKMAR ADLER,	D. H. BURNHAM,	W. L. B. JENNEY,
HENRY VAN BRUNT,	P. B. WIGHT,	IRVING K. POND,
LOUIS H. SULLIVAN,	ALLEN B. POND,	J. R. WILLETT.
WILLIAM S. MACHARG.	C. E. ILLSLEY.	

TERMS: Regular number, \$5 a year; Photogravure edition, \$10 a year. Single copies, Regular number, 50c.; Photogravure edition (including 7 photogravures), \$1. Advance payment required.

The columns and illustration pages of THE INLAND ARCHITECT are open to all alike, merit and availability only determining what shall be published. Contributions appropriate to its pages are always desired.

AMERICAN INSTITUTE OF ARCHITECTS.

OFFICERS FOR 1895:

PRESIDENT	DANIEL H. BURNHAM, Chicago, Ill.
SECRETARY	ALFRED STONE, Providence, R. I.
TREASURER	SAMUEL A. TREAT, Chicago, Ill.

VICE-PRESIDENTS:

FIRST VICE-PRESIDENT	*GEORGE B. POST, New York, N. Y.
SECOND VICE-PRESIDENT	*WILLIAM S. EAMES, St. Louis, Mo.

BOARD OF DIRECTORS:

For three years.

*Louis H. Sullivan, Chicago, Ill.	Charles L. Cummings, Boston, Mass.
George C. Mason, Jr., Philadelphia, Pa.	E. I. Nickerson, Providence, R. I.
Theodore Carl Link, St. Louis, Mo.	W. L. B. Jenney, Chicago, Ill.
Samuel Hannaford, Cincinnati, Ohio.	Wilson Eyre, Philadelphia, Pa.

For two years.

E. H. Kendall, New York, N. Y.	G. A. Frederick, Baltimore, Md.
Cass Gilbert, St. Paul, Minn.	Henry Van Brunt, Kansas City, Mo.
C. F. Schweinfurth, Cleveland, Ohio.	Jeremiah O'Rourke, Orange, N. J.
*Thomas Hastings, New York, N. Y.	Robert Stead, Washington, D. C.

For one year.

Theophilus P. Chandler, Jr., Phila., Pa.	Joseph F. Baumann, Knoxville, Tenn.
George W. Rapp, Cincinnati, Ohio.	A. F. Rosenheim, St. Louis, Mo.
William G. Preston, Boston, Mass.	R. W. Gibson, New York, N. Y.
W. W. Clay, Chicago, Ill.	C. H. Johnson, St. Paul, Minn.

*These with President, Secretary and Treasurer ex-officio, form Executive Committee.

STANDING COMMITTEES FOR 1895:

Committee on Foreign Correspondence.—Richard M. Hunt, chairman, New York, N. Y.; William Le Baron Jenney, Chicago, Ill.; R. S. Peabody, Boston, Mass.; C. F. McKim, New York, N. Y.; Henry Van Brunt, Kansas City, Mo.

Committee on Education.—Henry Van Brunt, chairman, Kansas City, Mo.; Professor William R. Ware, New York, N. Y.; Professor N. Clifford Ricker, Champaign, Ill.; A. W. Longfellow, Boston, Mass.; Theophilus P. Chandler, Jr., Philadelphia, Pa.

Committee on Uniform Contract.—Samuel A. Treat, Chicago, Ill.; Alfred Stone, Providence, R. I.; George W. Rapp, Cincinnati, Ohio.

Committee upon Conservation of Public Buildings.—Richard Upjohn, chairman, New York, N. Y.; Presidents of the several Chapters.

Committee on Publication and Library.—W. L. B. Jenney, Chicago, Ill.; R. W. Gibson, New York, N. Y.; Theo. C. Link, St. Louis, Mo.; Henry Van Brunt, Kansas City, Mo.; Cass Gilbert, St. Paul, Minn.

NOTE.—Officers elected enter upon their term of office January 1, and continue until December 31, unless re-elected, except in the case of Directors for two and three years.

Convention Month for Architects and Builders.

The annual conventions of the two national organizations representative of the architectural and building interests of the country will be held simultaneously on the 15th of the present month. But that of the American Institute of Architects will be at St. Louis, while that of the National Association of Builders will be at Baltimore. The convention of the Institute will be the twenty-ninth, while that of the Builders will be the ninth. There is every prospect that the time of both conventions will be largely taken up with the consideration of amendments to their respective constitutions and by-laws, for notices have been sent out calling for radical changes in both. It is unfortunate that bodies which meet but once a year should have so much business of this nature to perform as to have little time for the reading and discussion of professional papers, or the consideration of business ethics which most concern the welfare of their members and the large constituencies which they represent.

Proposed Amendments to Institute By-Laws.

It is too late now to offer any suggestions in relation to the proposed amendments to the by-laws of the Institute. The members have already voted by letter ballot upon a sweeping amendment to the constitution which proposes to abolish the present large board of directors and substitute a small executive committee. Upon the success or failure of this amendment will depend the necessity of considering some of the proposed changes in the by-laws. Another amendment, which will, in any case, be acted upon, provides for the representation of Chapters on the committee appointed at each convention for nominating the "regular ticket" of officers for the ensuing year. This appears to be a wise measure. An amendment is also offered which provides that practicing architects may apply and become Fellows of the Institute without first becoming members of any Chapter. This is all very well where there are no Chapters, but it will allow a body of architects in any city where there is a Chapter to come into the Institute and form a local clique in opposition to the authorized local organization which is the representative body of the Institute. It would thereby be put in the power of the directors to destroy the local influence of any Chapter. In line with this is another amendment which proposes to allow the directors to organize two Chapters in the same district, or a second one where one is already established, with the condition that the existing Chapter shall be previously "consulted" by the Institute. What this means it is not easy to see; after consulting them, what then? There would be nothing to prevent the directors from establishing an opposition or rival Chapter in the face of a protest.

National Association of Builders.

The convention of the National Association of Builders at hospitable Baltimore will have on its first day an address by Robert D. Andrews, F. A. I. A., of Boston, on "The Union of Building Trades' Schools with Schools of Architectural Design." This is the only paper announced. The proposed amendments to the constitution includes every article except the first.

CONVENTION HALLS.

BY DANKMAR ADLER, ARCHITECT.
(Concluded.)

THE necessity for affording opportunity for seeing the convention to as many spectators as possible, brings the convention proper into the center of the hall, surrounded by rising banks of seats for spectators, arranged as nearly as can be on the lines of the Scott Russell isacoustic curve. It would be most desirable, in the interest of good acoustic effect, to construct a ceiling, or sounding board, as low as is possible, over the space occupied by the delegates, and to flare this upward in all directions toward the spectators. But this is generally impracticable and may, even if attempted, defeat its own purpose. For an uncomfortable audience is an unruly audience, and an unruly audience cannot hear anything but the noises produced by itself. These conventions are held during hot weather. The temporary character of the hall prevents the installation of a comprehensive and effective system of mechanical ventilation. Hence there exists a necessity for lofty ceilings as a protection from the effects of the sun beating upon the roof, and as an aid to natural ventilation. The general conditions, then, being not at all conducive to good acoustic effects, the comfort of the audience must be depended upon as an important auxiliary to the acoustic success of the hall. As isacoustic lines are almost identical with good light lines an approximation to their attainment in banking the seats enables everyone in the audience to see everyone on the floor of the convention proper, and, by relieving the spectator from straining and fidgeting in the effort to see, permits concentration of the faculties upon the effort to hear. Again, people will come and go during sessions, and thus annoy each other. If disturbances from this cause are minimized by placing the aisles near each other—say, averaging not more than twelve seats apart—the noise and disturbance due to the coming and going of people will be greatly reduced and the audience kept in better temper, and hence in better condition to hear and understand the speeches.

In fact, keeping the audience in good temper is all important. A good system of designating sections, numbering seats and marking approaches is, therefore, of the utmost value, as it gets people to their seats promptly and without unnecessary effort or friction. With this end in view, I make every aisle a section designated by a letter, and that letter conspicuously marked on tickets, coupons and, above all things, upon the approaches which lead to the aisles or sections. It is well to begin the separation already at the entrances to the hall and to mark each of these with the letters of the aisles to be reached through it. Seat numbers of each section should go from each aisle midway to the next aisle. The seat numbers must be plainly marked on the seats in such manner that they can be read when the seats are occupied. It is well to write the first and last numbers of each row of seats upon the floor at its junction with aisle. The ushers should assist in marking the seats and floors. This will familiarize them with their seat numbers and will enable them to show people to their seats promptly, and therefore unflurried and in contented frame of mind. To prevent noise, confusion, and possible accidents, the chairs should be securely fastened to each other and to the floor, but attention must be paid to the length of the nails used and to the manner in which they are driven, with a view to preventing injury to the clothes and persons of those who occupy the seats.

There should be no standing room. The large corps of ushers, messengers, assistant sergeants-at-arms, etc., which is part of every convention, is in itself fully as large an unseated audience as any hall should be called upon to accommodate. If there is any part of the hall which is not occupied by seats or the necessary aisles, it must be cut off by partitions extending to the ceiling. All aisles should have a covering of matting, as also all stairs within hearing distance of the auditorium.

Stairs must be wide. An allowance of $1\frac{1}{2}$ to 2 feet per every 100 persons using each flight is reasonable. Stairs wider than five feet should have intermediate rails. All rails should be very strong, so as to form a support in case of panic. Stairs should not be too steep, and should have many broad landings and no winders. In building temporary stairs care must be exercised not to change heights of risers or widths of treads in any one flight, and particular attention must be paid to the nailing of treads and risers, so they may not get loose under the feet of the audience.

While windows and skylights can be depended upon for day illumination, electric lights will be required for the night sessions. It is quite important that every possible effort be made to protect

the eyes of the participants and spectators of the convention from excessive glare of electric lights and from the glare of sunlight passing through skylights and windows in south and west walls.

The ventilation of a temporary convention hall must necessarily be crude and rudimentary and will have to depend chiefly on windows and skylights. It is well to leave openings in the risers for the passage of air, the space under the bankings being enclosed in such manner that no one can get in under the audience. This is a precautionary measure, also, against the accumulation of rubbish, against incendiarism, etc., and against mischievous or criminal meddling with the supports of the raised seats. Of course, all building débris and rubbish must be carefully removed before the erection of the inclosing partitions is begun.

The study and preparation of the drawings for structures of this kind must not be slighted. They require much more care and attention than do the drawings of ordinary buildings. On the general plans every seat, every table, every platform and every step must be drawn, and simultaneous with this process must be the development of the sight lines, which should be drawn to the number of at least three for every section, and the arrangement of seats and steppings must be made to correspond with the sight lines as nearly as possible. As before stated, the sight lines and the lines of the Scott Russell isacoustic curve are almost identical.

Still greater care must be bestowed upon the construction drawings. An effort must be made to attain uniformity of structural members, but circumstances will probably make necessary the adoption of quite a number of typical systems of framing and of many odd and exceptional bents and members. Each typical and every exceptional form and combination should be fully illustrated by drawings drawn to rather large scale—say one-fourth inch to the foot. The position and size of every stick of timber and the relations to each other of the various members of the structure, as well as all methods of fastening, bracing and tying, should be so clearly indicated on the drawing that misunderstanding by the contractor or by workmen of the architect's intentions may be entirely avoided—albeit sufficient care in working out diagrams of sections in every possible direction and on every possible line of variation of structure will clarify the architect's ideas and will prevent many an error of judgment. In all cases joists and girders should be laid on top of supporting members, and nails, spikes and bolts should be used freely, but as little as possible as supports, and chiefly to keep the various structural members in position. The positions and dimensions of nails, spikes and bolts should be shown on the drawings.

The factor of safety used for work of this kind should be much larger than would be necessary for a permanent structure, and a framework built of a smaller number of heavy posts and girders is preferable in all cases to the use of many small studs and plates. In fact, the latter should only be used where the height between supports is less than about four feet. If posts or girders are built up of smaller pieces, these should be bolted to each other and the bolts should be used rather lavishly.

The architect's supervision of the construction of a temporary convention hall must be constant and thorough. Work of this kind is usually done with a rush, and the material generally remains the property of the contractor, and is intended to be removed and used again. This makes him reluctant to spoil the timber by excessive nailing, and calls for constant attention from the architect, who must also be ever alert to prevent the use of improper material, which in the general rush would not otherwise be sorted out and rejected by the contractor.

Finally, the supervision of construction of a convention hall demands unusual attention from its architect because of the many emergencies which are apt to arise and call for immediate decision and action by someone in authority and one accustomed to shouldering responsibilities. The work is for the public, and is being closely watched and criticised by the press, while members of local and national managing committees may modify their ideas and requirements many times during the progress of the work, and must be promptly met by the architect with a judicious and prudent firmness, and yet with a facility of invention and a fertility of resource in meeting irresistible demands and emergencies which is rarely possessed by an ordinary superintendent or foreman.

In the last days, and especially during the last hours of preparation, the architect will find that he ought to be almost omnipresent, if his care of the hall and his solicitude for the comfort of its occupants are to be rewarded by success. And, after the

opening of the convention, I have found it necessary to inspect after each session the condition of the fastenings of seats, the stairways, and all other parts of the hall which were liable to suffer injury or derangement, and have never felt my responsibility ended until after the close of the convention.

THE ALL-AROUND ARCHITECT.

BY C. H. BLACKALL, ARCHITECT.

"It is an honorable employment and worthy of glory for him who creates for future centuries the monuments which will be the admiration of posterity. It is for you to direct the masons, the sculptors, the bronze founders, the plasterers and stucco workers, and the mosaic workers. You must teach them wherein they are ignorant and must solve for them the difficulties which they encounter. In a word, it is to your enlightened intelligence that the army of men who labor under your direction must have recourse in order that nothing shall be confused or reprehensible in their toils. Consider what prodigious knowledge is required of you in order properly to direct so many varied artisans."—From the instructions given by King Theodoric to his architect.

THE enormous extension of the field which a successful architect is required to cover in his daily practice has seemed to give cause for a subdivision of professional work to an extent which, while a natural result of existing conditions, might easily lead to a serious misconception of what is the proper scope of the architect's immediate acquaintance with, and control of, his work. Everyone is inclined to magnify his own calling, and quite rightly and naturally, but it is to be doubted if any profession is as exacting and absorbing of soul and body as that of architecture. There is simply no limit to the amount of study, preparation, hard, grinding work and serious thought that an architect can put into his professional affairs; but with the multiplication of the architect's functions there has come to be a very considerable difference of opinion as to the necessary attributes of our profession, and many consider the architect's functions in a much more limited light than did Theodoric. With the introduction of electricity, complicated plumbing, elaborate machinery, extensive systems of heating and ventilation, intricate constructive details, expensive and scientifically accurate foundations, it has seemed at times as if the proper position for the architect is to be simply a leader among specialists, those who hold this view claiming that, if one is able to plan a building wisely, to design it successfully and to see that his instructions are carried out in execution, he can then safely intrust all of the strictly scientific details to those who make a specialty of doing only one department of the work which enters into a large public building. In other words, the architect need not be the creator of the building in all its functions, but is to be simply the master mind which gives assent to things of which he is often profoundly ignorant.

The architecture of today, while intensely modern in many of its manifestations, and in nearly all of its practical details, is nevertheless very largely retrospective. We have borrowed our architecture from the past instead of creating it new, and the process of borrowing is so much easier than creating that it is not strange so many of us are willing to leave special evolution to the specialists and content ourselves with liberal borrowing, meanwhile flattering ourselves with the belief that, after all, architecture is an art, and science, machinery and business details, though they may be bone and sinew, are not the real fabric. That this position is in opposition to all the teachings of past art must be evident to every student of the history of architecture. There has never been a time when architects might be so much and are so little as at present, and it may also be said that in no country are the architect's real powers and functions so restricted as in America. We are just fairly emerging from the dry barrenness of what someone has very aptly called the vernacular period of our national art, when there was nothing but dry bones, with no thought of real life and beauty to clothe them. The country has been profoundly awakened to an appreciation of the artistic possibilities of architecture, and has manifested this, not only by the works of architects themselves, but by the spirit in which our professional efforts have been met by that extremely sensitive but often fickle censor which we designate collectively as public opinion. We are trying to be artistic and are not making such a very bad success of it, even putting it at the worst; but in the process it is to be questioned whether an architect is doing wisely to take the attitude that he can leave any part of his work to

specialists. I would not be understood as saying that an architect should do all of the work himself—should make every drawing, should calculate every beam, should determine every current of air, or the value of every pound of steam—for, while this would be the ideal condition and would undoubtedly lead to better buildings by developing the individual, still no one can ignore the commercial element which obliges the architect, if he is to earn his living, to draw around him assistants who shall share his work, shall formulate his ideas and put them into proper shape for execution. But there is a great difference between designing a building through one's assistants, retaining meanwhile a firm hand upon the whole, and the other course of designing only a small portion and abandoning the balance without reserve to those whom we are willing to acknowledge know more than we do about a detail, though they may be entirely out of key with the general idea. The true architect may be less scientifically exact than the specialist, while really knowing and appreciating far more, in an architectural sense, and I can hardly believe it will be possible to rise to the independent plane of artistic thought which has characterized the great creative epochs of the past without a thorough and practical knowledge of every detail of the building on the part of the one who undertakes to design it. It is not enough to make our buildings merely visibly artistic. That is the vitally essential condition without which there is no hope, for no matter how well constructed and thoroughly planned an edifice may be, it does not become architecture until it is adorned; but, on the other hand, we know by the experience of our sires that the adornment which is accompanied by coherency in vital functions gives rise to the art which is permanent, and which has a lasting effect upon the creator and upon those who study it.

It may be almost impossible to draw the line as to how far the architect shall carry his scientific attainments. Surely he should never go to the extent of interfering with proper imaginative treatment of his designs. But the danger, especially with our younger men who do not appreciate vital necessities so keenly as those who have suffered by neglecting them, is that, when architecture is looked upon simply as pure art, a feeling arises that science may be ignored, not merely in practice, but in principle, and that not only can an architect be pardoned for not figuring his own trusses, determining his own foundations, or properly devising heating surfaces, but also that he need not know anything about them at all and can safely abandon the whole thought of such things to specialists. I firmly believe that this is wrong. The excuse is sometimes made that in the ordinary scope of human life it is not possible for an architect to learn all of these things; that he cannot acquire all of this knowledge so as to put it in practical use; that it would be hopeless and absurd to undertake to do things himself when someone else could do them a great deal better. That may be with conditions as they are. But it should be recognized that not everyone is called to be an architect; that not merely because one loves to draw, or admires beauty, can he become a true artist; that he who wishes to rank first must undergo the preliminary pains; that a young man should not expect to leave college at twenty and start in business at twenty-one; that there are long years of patient, earnest toil required in order to master his profession. This does not imply that we must know more than the specialists, that we should never call in their help nor let them direct us; but it does follow that the architect who keeps a close watch upon every function of his work, who understands enough about all of its details to take hold and do them himself if necessary, who is not at a loss for procedure when his practical adviser is on a vacation or sick—in other words, who is the real head and center of a building, stands more chance of producing good architecture, and is more truly entitled to rank as an architect, than one who is willing to content himself with planning and designing, turning over the other details without a thought or murmur to a specialist. Furthermore, there is no evidence that this knowledge cannot be acquired by a man of sufficient capacity in the course of the fifteen or twenty years' training which ought to form a necessary part of every architect's education. The engineering problems involved in a large building are, after all, simple ones. Whether as applied to constructive details or to steam or power engineering, they are much similar in all cases, and, after half a dozen or more practical experiences with actual building operations, these engineering requirements are determined more often by judgment and what we vaguely call common sense than by mathematics or book learning.

I was much interested a short time since in conversation with a young man who was desirous of entering my office as a student. He was a graduate of one of our largest universities and had taken special honors in mathematics, carrying his investigations through a post-graduate course up into the higher realms of computative fancy where, as he said himself, he felt the chief object of study was to hopelessly tangle up a problem for the sake of clearly elucidating it. He told me he had given up pure mathematics, and had undertaken to study architectural construction, but to his surprise found that, after he had accurately figured out some portion of a structure, there would arise reasons or conditions which would seem to ignore the results of his mathematics and substitute therefor larger timbers, heavier steel, or, in some cases, even a smaller section of column. In other words, that there was a factor entering into the business calculations which was not purely mathematical and which seemed to be possible of acquirement only through long experience. It is so with nearly all the so-called practical branches of architecture. The amount of real book learning, of actual instruction in schools and classes that is required to master the details of steam heating, plumbing, electricity, structural steel work, or any other of the even extraordinary problems which arise, can be compressed into the compass of a very few years, so that there is ample opportunity, if the incipient architect will but take it, to master enough of the technical departments of architecture to enable him to successfully plan and direct the execution of every portion of the work which an architect has to do. Of course, he who has the largest experience is best able to do this successfully. The man whose work has been limited to wooden houses knows little of a twenty-story office building, and the draftsman whom kind friends start in business before he knows how to calculate a girder has no one but himself to blame if he finds himself unable alone to handle complicated structures, and it is a poor excuse for his limitations to say that the requirements of modern architecture render the employment of specialists imperative.

Now, no one can lay down the law for anyone else without endangering the safety of his own glass houses. We all make mistakes, artistically as well as practically — mistakes of judgment and mistakes of science — and it behooves every architect who is confronted with the construction of a large building to surround himself with all the checks and safeguards possible; to employ specialists to revise his work, to advise with him if necessary. In the multitude of counsels there is always safety, but there must be only one head cook if the broth is to be good, and that head must control everything, down to the minutest detail. Very likely much will escape us. It is almost sure that we will make mistakes and blunders, but growth is measured quite as much by intent as by achievement. We all want to be good architects, we all want to thoroughly understand our profession, and I believe that, while all architects are not equal to some architects, and that the capacities with which we are endowed by nature impose very decided limitations, it is quite within the limits of architectural education and certainly within the bounds of professional requirements, to know thoroughly in detail everything that goes into a building, to be what is sometimes termed an all-around architect, and whatever our success may be individually, the attempt to thoroughly understand our profession is sure to do more good to us and to the country at large than if we simply make up our minds to be a business head directing the many functions of a building by acquiescence rather than by deliberate intent.

There is another function of the architect which is scorned with contempt by the artist and is even looked at askance as savoring of unprofessionalism. Why should it not be a part of an architect's education to post himself upon real estate values and the financial operations usually a part of the creation of a public building? When a client comes to an architect for advice in regard to a building one of the first questions he is very apt to ask is, what will it cost, and it seems right for him to expect that the architect should be able to answer this with a very considerable degree of accuracy; should be sufficiently posted in the values of materials and should keep sufficient track of the prices of labor and manufactured articles to be able to give tangible, reliable figures, within certain limits, of what the building will cost and how quickly it can be built. The next question the client will ask is apt to be, what will it pay? And I see no reason why it should not be just as much a part of the architect's equipment to know the renting value of property, the price of land, the earning capacity of money, the rate at which mortgages can be placed, as

it is for him to know the carrying capacity of a beam or the strength of a foundation. Neither has to do with art. The business questions have simply to do with business success, and it seems unreasonable to deny that he should be able to completely advise his client as to location, purchase and renting capacity of a good investment. Architects' estimates are usually looked at with very slight favor by business men, and, in the rare cases where an architect's opinion is asked on such subjects, it must be admitted that the results do not justify any great faith in his judgment. I am speaking now, however, of conditions which might be, rather than of those which are, and, if the architect is to be thorough master of his art, by the same token should he be thorough master of his business and all its ramifications.

Now this leads directly to a further amplification of the architect's functions. Theodoric practically told his architect to be the master builder. Such a thing as a master builder was unknown in those days, and has only come about now by reason of the ignorance of the architect in practical details and the distrust by the owner of his architect's ability to control a varied set of mechanics. I believe the time is coming when the master builder, as such, will disappear, and the architect, as far as relates to the direction of work, to the making of contracts for material and the completion of the building within specified times, will very largely take his place; the builder, as such, being an employer of labor and a manufacturer rather than what he is now, a business agent. That such a result would be better for the building can hardly be doubted. The closer the architect is in touch with the mechanic, the better it is for both of them. The more the architect has to do with the execution of the work on the spot, the less likely he is to be misled in his judgment by mere office productions, and I hope the time will come when a client will employ his architect not merely to plan but to actually build his buildings, and will say to him just as Theodoric said to our worthy prototype, that he must do everything to be done about the building, and must have his hands and his eyes upon every detail both of design and execution; directly employing the men, telling them what to do, and being in constant touch with the actual operations. The whole responsibility of a building should rest, not upon the builder, but upon the architect. If the builder is at liberty to do his work in one way, and the architect feels it ought to be done in another, there is bound to be a certain amount of wasted time or wasted endeavor; while, if the architect is the director of everything, and tells not only what shall be done but how it shall be done, we will approach a condition of artistic development which, while similar to that which marked the Italian Renaissance, would be as much ahead of it in every respect as our modern implements and modern business methods are ahead of the limited scope afforded the builders of the middle ages. There are not lacking signs that something of the sort will come about. Some of the best architects in the country have been doing just this to a limited extent for some time. In the case of one very prominent building in the Southern States, the architects, who unquestionably stand at the head of the profession, made the contracts in their own name and superintended the work first and last more as builders than as architects, without, however, acting in any other capacity than as the adviser and active agent of the owner. In another building, involving a cost of several million dollars, in which a good deal of special construction was necessary, the architects found it advisable and obtained the sanction of their clients to what has practically amounted to educating the workmen under their own eyes, employing the labor, buying the material, and acting in nearly every respect as the master builder, with the exception that they were the representatives and agents of the owners, and their interests were to make the building exactly as the owner wanted it rather than to merely carry out a specific contract. Now, according to the code of ethics, which has been adopted by some architectural bodies in this country, such a procedure is unprofessional. But he is a brave man who will say that a course which is unprofessional today must necessarily be so for all time. And here again we come back to the vital question of the architect's capacity. To occupy the dual position of architectural adviser and master builder an architect must have a practical and thorough education to an extent for which very few of our young men are willing to give the time. He must not only be an all-around architect but an all-around constructor. Not that he need take up his chisel and his plane, but he surely ought to know when the chiseling is right and the planing complete.

If it be feared that such a condition of professional affairs would involve a derogation of artistic possibilities or a curtailment of the imaginative qualities which must enter into every great architectural work, the answer is: If we are to do our work at its best we architects must be content with less of it. It is rarely possible for one architect to handle many buildings at once and make them all successful. If the chief idea is to make money in the profession then the more specialists we have, the less the architect does himself; the more he delegates to others, the better man he is. But if we are sincerely trying to do the best that can be done, if we intend truly to be the creator of our works, then we must go slowly, we must take things by degrees, and we cannot expand ourselves over a great territory without becoming so shallow that the bare spots will appear where we least expect them. Under the existing commercial conditions no architect can financially afford to concentrate his thought and time upon a single building, for a commission of five per cent would in most cases fail to even pay expenses; but if an architect is to give his client such service as would be implied by doing the work of both architect and master builder, while at the same time acting altogether in the owner's interest, the latter can well afford to pay him fifteen per cent rather than five, and the result to both architect, owner and builder would be far more satisfactory. Indeed, this has been tried in a very few rare cases and has worked with perfect satisfaction, and the time may come when not only will architects feel that they must be all-around men, must know other things besides art, must be able to take hold and do the work as well as telling someone else how to do it, but besides this the public which hires architects will more fully appreciate than now that it pays to get a good man, that it pays to let him alone after he is employed, and that it pays to give him proper remuneration.

Aside, however, from any ideals which the future may have in store for the profession, we must grapple with the intense, competitive conditions of actual practice, which are tending every year toward more rather than fewer complications. It may be all right for us to subdivide our work and share our responsibility, but surely no harm can come from a knowledge of all details, and a thorough mental equipment for all structural and scientific, as well as artistic, emergencies, and, although our urgent desires for wealth and fame may prompt us to accept every commission that comes to us, is it not best to at least attempt to master the whole, and never admit our limitations even to ourselves, so that we may look on our buildings as rightly and truly our own in every conceptive detail, even though we thereby merit for our epitaph:

"He hath done more than he could"?

CONSTRUCTION IN ARCHITECTURAL DESIGN.

BY CONRAD H. B. SCHAEFER.

THE advance of mechanical methods in architecture insures the progress of ornamental practice. New things in construction make opportunities for new things in decorative design. Strange to say, however, the more conversant designers become with the classics the less adaptable they become to modern suggestions. It places the art between two limitations: The work of the vernacular artist who does not learn the beautiful system that is his heritage, and that of the scholastic artist who persistently refuses to ennoble it by adaption to modern contingencies.

One not indicating, by their handling of exteriors, features associated with outward life, may turn to the encyclopædia, learn when such improvements were first incorporated in buildings, and calculate how many centuries their work is behind the times. Constructional contrariness (as it at first seems) is an invaluable basis for enrichment.

Architect Richardson's improvement upon Romanesque ornamental precedents is not the backbone of his work. It is the expression of new peculiarities in plan and service that impart the distinguished character to his designs. It is not the supremacy of the Roman architectural style that is celebrated in the Columbian Exposition buildings. It is the adaptability of Greek detail to wonderfully advanced methods of building.

The architectural student has to accompany the developments of the hour with two endeavors: The assistance of the artisan in his efforts at improvement, and the artistic expression of that advancement. If this is not done, then the work is a failure. On the morrow it is a discovered failure, and, the next day after, a condemned failure. It is not classic because it is a veneered

expression of contemporary circumstances. Veneers are always short-lived. When ornamentation is confined to the expression of structural suggestion the result falls far short of what the wealth of ornamental motives indicate to be possible. This wealth so exceeds the capabilities of the average designer that the architectural embellishment is divided into many different styles. Their combination in one great order only depends upon proper architectural erudition. The latest constructive methods are preliminary experiences that introduce the architectural system of the approaching time. First in order, metal construction is very likely destined to exposure at critical points. Riveted portions will be made convenient for examination. It will increase the demand for ornamental ironwork. In order that this wholesome step may be taken the furniture manufacturer of the future may supply the market with fireproof furnishings.

The cheap and easily available materials are more valuable after they are fashioned under the direction of the designer than the more costly supplies niggardly decorated, the whole cost remaining the same in both cases. A city thereby becomes a better expression of its natural facilities, and the mass is not marred by the discordant obtrusion of unfamiliar substances. The rare and costly are not for familiar use.

COMMON SENSE AND FORMULÆ.

THE following extract from the "Transactions American Society Heating and Ventilating Engineers" (page 69) will be interesting to architects and also to heating engineers:

"Mr. Barron: I would like to say a few words if I may be allowed a little latitude. I cannot bind myself to talk closely to the title of this paper. But I think that what I say will apply to it, and also to Mr. Smith's and Mr. Jellett's remarks. I wish to say that my experience agrees with nearly everything Mr. Smith said about the coefficient of common sense, judgment, and all that, being superior to all formulæ, to all data that have been discovered. . . . I consider that my experience and judgment are far superior to formulæ, although I realize that the man of formulæ is the coming man. . . . I do not proportion radiating surface by any data or any formula, except the coefficient of common sense and judgment of experience. We know what radiators we have been putting in a certain class of buildings for years, and we lay out certain radiators for certain rooms. Of course, we know these radiators bear a certain proportion to the exposed walls and windows and all that sort of thing, but we lay the radiators and a good deal of work without any rules at all. Of course, we figure the cubic contents and we do not have many difficulties. . . ."

"Mr. Baldwin: The coefficient of common sense in the case of the new Pension Office brought forth some peculiar results. One contractor wanted to use 84,000 feet of surface. The Walworth Manufacturing Company used 24,000, got the contract and warmed the building. The quantity of surface proposed by the different contractors ranged from 24,000 to 84,000 square feet. I think that the Walworth people, in making their estimate, were helped by taking the outside of the building, and they had to look out for the skylights. But there a little data, founded on facts and condensation and cooling surfaces, got them the job."

"Mr. Barron: I hope Mr. Baldwin will pardon me for saying that I think the Walworth Manufacturing Company's coefficient of common sense was a very good one, and I think they used it there in connection with the data."

"Mr. Baldwin: But you realize that the cubic contents of the building had nothing to do with the amount of surface that went into it. The new Pension Building is a great barracks, as it is called, around which is a number of rooms, with a great open space in the center that goes to the roof. Now, taking the cubic contents and taking 1 to 100 it would call for 50,000 feet of heating surface. But, as a matter of fact, taking the outside surface of the building, taking the glass and the walls, 24,000 feet warmed it. That is the point I want to bring out. I remember in old times I worked for Blake & Higgins, thirty years ago, in New York, and I said to Mr. Blake at one time: 'How do you figure radiating surface?' 'Oh,' he said, 'you are too young in the business yet.' I thought at that time that Mr. Blake knew something that he did not want to tell me. One day, shortly afterward, I was going around with him and he said: 'Baldwin, put a 40 in that room, and a 60 in this room, and an 80 in that room.' And when we finished there were about 40,000 feet in the building. He said: 'We will use boilers 48 inches in diameter and 12 feet long.' I said: 'How do you get at the size of the boiler?' He rather smiled, and thought I had better wait a little while. Well, there is a great deal of that today." (Laughter.)

"Mr. Smith: Occasionally I get a new man who wants to know how to figure out the heating surface to be used. That is a question that staggers me every time, and I have always been obliged to plead to the fact that I was too busy just then. I have to lay out my work in just the same manner Mr. Blake did thirty years ago, by simply putting down so much here and so much there. The Walworth people had learned that cubic contents had nothing to do with the case mentioned by Mr. Baldwin, and that is a very valuable point for many young engineers to learn. For instance, you take a room that is 20 by 40 and you get your 800 square

feet of floor surface. Multiply 40 by 40 and you have got 1,600 feet, and you have doubled the cubic contents and you have increased your wall surface only about twenty feet on each surface, so that the proportion of heating surface would not run up in any such manner. It is wall surface that has to do with it. But I would like the man of figures to point out to Walworth any set of formulae by which, with that data alone, and without any element of common sense, they would have got down to that basis of 24,000 feet. I am quite willing to believe that the other man got his data from somebody's rules."

NOTES FROM OUR FRENCH EXCHANGES.*

The architects of the United States are not the only ones who have been recently interested in the adoption of a code of ethics. For the past year the French architects of the great *Société Centrale* have been struggling with the same subject, and at the recent annual convention a lengthy code of professional duties, as it is called, was unanimously adopted. This document is divided into three distinct heads, namely: I. Duties of architects toward themselves and their professional brethren. II. Duties of architects toward clients. III. Duties of architects toward contractors. The first group is one of especial interest, as being more in line with the questions under consideration at the last convention of the American Institute, and is in detail as follows:

1. Architect, as defined in the dictionary of the French academy, is, "The artist who designs buildings, determines their proportion, composition and decoration, and the person who also has them executed subject to his orders and certifies to the expenses." Consequently, the architect is at one and the same time an artist and a practical man. His duty is to conceive and study the design of a building, to direct and superintend its construction, and to verify and certify to the amounts of money expended.

2. He practices a liberal and not a commercial profession, and this profession is incompatible with that of contractor or material man.

He is paid solely by his commission, to the exclusion of all other sources of profit while working in his professional capacity.

3. If an architect has patented an article employed in construction of buildings he shall not exploit it himself, but sell the same to regular dealers, together with all rights of such exploitation.

4. An architect, being neither a merchant's nor a manufacturer's agent, is forbidden to do anything which would give him either discounts or commissions. He must abstain from advertising in public journals, by posters, or by any of the other methods of publicity usual in the commercial professions.

5. He is forbidden to canvass for work or clientage by means of discounts, commissions or deductions on regular fees which he shall make to any middleman. And, in general, all arrangements are forbidden which need be kept a secret from either an actual or prospective client.

6. In his relations with other architects plagiarism is forbidden, as well as the misuse of such rules as conscience prescribes for artists worthy of that name.

He shall not seek the work or clientage acquired by another architect, or, if called to take such clientage, owing to death or retirement of an old practitioner, it shall be the special care of such architect to be the guardian of the honor or interests of the other.

7. The position of professional "confrère" must be recognized and given to every architect honorably practicing the profession.

He shall as much as possible give preference to any business engagements with brother architects, and, when there is any consultation or business between several, such meeting shall be held at the office of the oldest.

8. When an architect employs in his office as draftsmen or clerks young men, who are thus receiving one part of their professional education, he shall give them the aid of his experience and in all ways treat them with the regard essential to fostering fraternal feelings in the profession.

THE EFFECT OF THE EARTHQUAKE UPON THE BUILDINGS OF FLORENCE.

The damages caused by the recent earthquake at Florence have been considerably exaggerated, and yet the effects have been such as to justly trouble all artists. The exaggerations of the newspapers have been almost exclusively relative to the buildings situated on the cathedral piazza. Here the damage has indeed been important, but not by any means so serious as for many buildings in the other parts of the city or its immediate suburbs.

As a matter of fact, all the cracks and breaks which are now seen in the interior of the cathedral have everyone been in existence for many years, although a few have been slightly increased by the late shock.

Documents still preserved in the archives of the church show that the vaults of the first two bays of the cathedral were not yet completed when the vaulting of the side aisles began to show cracks, and that, at a conference of the "Masters" held July 23, 1366, the cause was decided to be the poor setting of some of the columns. A little later cracks showed in the vaulting of the nave, and they tried to remedy these by marble bondstone. The one at the south had been broken for a long time, and this shock broke that one at the north, in a line with an arch beneath, where a great iron bar used as an anchor and tie was broken, so that the

width of this crack in its widest place is seven millimeters. The bar, which was about fifty feet in length, broke near one end, and then, bending under its own weight (of nearly 1,000 pounds), struck against a stone pier and broke at two other points. Thinking that, either on account of the quality of this iron or of some defective workmanship in forging the bar, the metal was not in its normal condition, the bar was submitted to the examination of a specialist, who has just made his report. According to this report there were some inequalities in the construction of the metal. All the surfaces of fracture were crystalline, but it does not necessarily follow that the bar had lost in its entire length the fibrous structure of iron, since the nature of a breakage is different according to the manner in which such fracture took place; although, if one considers that this iron has been doing work for nearly five centuries, it is very probable, if not altogether certain, that the primitive fibrous structure of the iron had become crystalline, to the great loss of its strength. From this the expert concludes that the bar is no longer in condition to do maximum work—in short, the bar is one of the "victims" of the earthquake.

People talk of the cracks in the base of the cupola, but they all have existed for a long time. In a report of 1695 we learn that in January, 1691, an examination was made, because it was reported that the existing cracks might have fatal consequences. It was then decided to measure the movement of these cracks by means of bands of iron and bronze, and the project was to also surround the cupola with three metal chains. This idea, however, was never carried out, owing to popular objection, which was strengthened by the opinion of several architects. Some of these metal bands put on at that time were broken soon after by an earthquake in 1701. Today, however, the cracks are more conspicuous, because of fallen plaster, than ever before, and also on the outside one can see witness of the terrible shock which the dome received by the fall and breakage of numerous tiles on the roof.

The damages to the façade are most insignificant, being confined to the falling of some small cubes of marble and a movement in some of the mosaics. The campanile resisted all shocks successfully, and the baptistry only had some slight dislocations of one of the north arches.

So much, then, for the buildings on the cathedral square; but, unfortunately, the damage does not stop here. The veritable disaster was at the monumental Certosa, in the Val d'Ema, three miles from the city, where an entire side of the cloister, with its seventeen columns, fell. In this were sixteen medallions containing busts of saints—very remarkable workmanship—by Della Robbia. Fortunately the fragments—all of which have been found, and even some of the medallions quite intact, under the mass of rubbish—will render a restoration possible, although the day after the disaster it was said that at least a portion was lost beyond any help. The Society of the Monuments of Tuscany has commenced work upon strengthening the least secure parts of the Certosa, but the actual studies for the restoration will require a very considerable expense.

A similar accident happened to several of the terra cottas of the National Museum. At San Miniato some considerable minor damage was done.

In the suburbs at least 120 churches have been more or less injured, and a very large number of country houses. It is unnecessary to say that on every hand work of demolition and also of reconstruction or repairs is being actively pushed, and, while the great monuments of the cathedral square have been but little injured, still the total damage caused has been very great, and can only be effaced by large expenditure of money and time.—*La Construction Moderne*.

FRESH PAINT SMELLS.

The deodorizing and rendering habitable of rooms freshly painted is not an operation easy to realize. The natural and, in fact, traditional method is to energetically ventilate by opening all the doors and windows, but this has the objection of being very slow and scarcely practicable in very damp or extremely cold weather. The following, however, is a very practical and simple method of obtaining the desired result. Take for each room from 100 to 120 grams of sulphuric acid. Divide into two equal parts and place at the two extremities of the room in bowls. The fumes from the acid destroy the odor from the paint. After a few hours, when this action of the acid has ceased, air the rooms, and they are then ready to live in.—*La Semaine du Batiment*.

THE PARTHENON IN DANGER.

The *Temps* has recently published some articles from its correspondent in Greece which give interesting information relative to the work which M. Magne is now engaged upon at Athens. His trip to Greece is in connection with the preservation of the Parthenon, and the Parthenon—be it said to the honor of the Greeks—has more followers than any political leader. The very day after his arrival he was invited to deliver a lecture upon the existing state of the Parthenon. Archaeologists of all nations and of classes, artists, savants, architects, etc., were present at this meeting, and every word of his was—one might say—emphasized by applause. M. Magne pointed out with almost mathematical precision the technical results of the admirable work he had done upon this monument before general attention had been called by the last earthquake to the dilapidation, or, rather, disintegration of such marbles of the peristyle as the English had left. A shiver ran through the audience when he pointed out the danger which threatened the chef d'œuvre of Ictinos—the irreparable

*Translated for THE INLAND ARCHITECT by W. A. Otis, architect.

loss to art should this peristyle fall, bringing with it the greater part of the bas-reliefs.

This lecture was extremely well timed, since the report of Herr Durm was not then known. This German architect had been invited by the Greek premier to give his opinion on account of the disagreement of the committee appointed to have charge of the work to be done on the Parthenon. Although this architect is highly spoken of, yet he has not been able to entirely efface an unfavorable impression from the minds of many, on account of his opinions upon the curved lines of the building, which have occupied the attention of the savants and architects for so many years, his idea being that these deviations from the straight lines are due entirely to settlements. It is due to him, however, to say that this opinion was formulated before he had ever seen the building.

In a visit to the building M. Magne showed the writer, from some scaffolds erected at the southwest, the ruinous condition of the architraves and capitals. At places the lintels have—so to speak—bent under the weight of the stone courses above, and great pieces are cracked out of the capitals, which only hang in place because of equilibrium established by some old settlement, and so delicately poised that a heavy thrust even with our canes would have started pieces of stone whose fall must inevitably have drawn down and destroyed the bas-reliefs of Phidias. The work of restoration and strengthening will now probably be at once undertaken, and undoubtedly soon be brought to a successful conclusion.—*La Semaine du Batiment*.

ASSOCIATION NOTES.

DETROIT ARCHITECTURAL SKETCH CLUB.

On Monday, September 16, thirty-five draftsmen met at the Detroit Museum of Art and effected a temporary organization of the Detroit Architectural Sketch Club, Emil Lorch being elected chairman, Alexander Blumberg, secretary; a committee, consisting of W. E. N. Hunter, R. Mildner and G. H. Ropes, being appointed on constitution and by-laws.

The report of this committee was adopted at last evening's meeting, and the following officers and directors elected: President, Emil Lorch; vice-president, G. H. Ropes; secretary, E. A. Schilling; treasurer R. Mildner. Directors—W. E. N. Hunter, F. G. Baxter, and Alexander Blumberg.

The object of the club and its proposed methods of study are like those of similar organizations elsewhere.

ILLINOIS CHAPTER A. I. A.

The annual dinner and meeting of the Chapter was held at its rooms in the Institute of Building Arts, 63 and 65 Washington street, Chicago, on September 16. Twenty-eight members were present, with President S. A. Treat in the chair. The annual report of the Chapter to the convention was read from the new blank recently prepared by the Institute, which makes it almost impossible to omit any of the necessary statistical statements. From this it appears that there were 81 members on September 30, 1894; that two have been elected, two have resigned, two have lapsed, none have died, and that there are now 79 members. The time covered by the report was eleven months, the annual meeting having been changed to September at the request of the Institute. There had been eight regular meetings, at one of which, January 8, the Board of Directors of the American Institute of Architects had been entertained at dinner. Papers had been read by N. N. Waslekar, of Bombay, India, on the "Architecture, Religion, and Politics of India," by R. E. Pierce on "Distribution of Electricity in Buildings," and W. E. Carr on "Passenger Elevators." During the year the Chapter's meeting room and library had been damaged by water from a fire in the upper part of the building and had been entirely refurnished, the entire loss having been covered by insurance. The report of the treasurer was presented by Mr. Hallberg and referred to an auditing committee. This showed cash received from former treasurer, \$575.48; receipts, \$8,010.22; total, \$8,585.70. Expenditures, \$7,869.67. Cash on hand, \$716.03. The report covered eleven months. The report of the executive committee on the Institute of Building Arts was read by Mr. Beaumont. The financial part was referred to the same auditing committee. The report shows that the receipts for eleven months were \$7,604.38, and the expenditures were \$7,444.85. The excess of receipts over expenditures was \$159.53. The accounts and bills receivable over accounts payable are \$1,744.56. The total excess of receipts over running expenses, including accounts and bills receivable from the commencement, has been \$4,166.60.

A committee of three was, on motion of F. W. Perkins, appointed to prepare suitable resolutions on the death of the late Richard Morris Hunt. The committee consisted of P. B. Wight, N. S. Patton and W. W. Clay.

The following were elected as officers for the ensuing year: President, George Beaumont; vice-presidents, Normand S. Patton and Peter B. Wight; secretary, Dwight H. Perkins; treasurer, L. G. Hallberg. Mr. Patton read a report of the standing committee on buildings and grounds, reciting the transactions of the Chicago Municipal Improvement League, of which it is an integral part. The report showed that the committee from the Chapter had prepared during the year a complete plan for the improvement of the Lake Front Park, on land to be recovered from Lake Michigan by filling; the plan had been referred to the several committees comprising the league for consideration, and to Frederick Law Olmsted for criticism. It was expected that, after these had been reported back, a revised plan would be prepared and tendered to

the city of Chicago as a contribution of the Chapter for the public welfare. It was not expected that the plan would be adopted as a whole, but it would put on record a comprehensive scheme that may be the foundation of what may be done when the work is taken up in earnest. Since the preparation of the plan the mayor of Chicago has negotiated a contract with the Illinois Central Railroad Company, subject to the action of the common council of Chicago, which may make the whole scheme feasible. A large scale copy was exhibited. The report elicited much interested discussion, after which Mr. Charles R. Adams offered the following resolution, which was adopted: "Resolved, that while thanking the committee who have taken a great deal of trouble to prepare and explain their plan for architecturally beautifying the lake front, and inasmuch as the committee have been corresponding with Mr. Olmsted, whose opinion is considered valuable in the premises, that the committee be requested to continue their work and report at the next meeting of the Chapter."

The jury of award for the Chapter gold medal for 1895 did not present its report, none of the members being present. It was announced in the catalogue at the time of the exhibition of the Chicago Architectural Club that the award had been made to Elmer C. Jensen. It is expected that the Chapter will be well represented at the annual convention of the American Institute of Architects to be held at St. Louis, October 15-17. An effort is being made by President Beaumont to secure reduced railroad rates from Chicago. Appreciation should be shown the St. Louis Chapter for its elaborate preparations for the entertainment of guests. The meeting adjourned at a late hour.

CORRESPONDENCE.

GALVESTON, September 23, 1895.

Editor of THE INLAND ARCHITECT:

DEAR SIR,—I take the liberty of inclosing to you copies of clauses 19 and 20 of the will of the late Henry Rosenberg, who died in this city in May, 1893. As these follow in regular order the Y. M. C. A., for which the executors are now about entering into contract, we have thought that the publication of these two bequests might prove of interest to those of your readers who may contemplate entering into competition for these works. If such is your own view, you are at liberty to so use the data inclosed. We send you also for your own information a memorandum of other public bequests to this city, noting the progress made in erecting the buildings provided for.

I am very respectfully,

A. J. WALKER.

XIX.—I give fifty thousand dollars (\$50,000) for the erection of an appropriate monument, in the city of Galveston, to the memory of the heroes of the Texas revolution of 1836. The execution of this bequest is charged upon my executors, who will adopt plans and have the monument erected under their immediate supervision.

NOTE.—This monument is intended to commemorate the events, incidents and the individuals participating therein in the war of independence between Texas and Mexico. The histories of Texas by Yoakam, Thrall, and by John Henry Brown (recently published) furnish all this data complete. It will be necessary for the sculptor to familiarize himself with some of these works.

XX.—I give thirty thousand dollars (\$30,000) for the erection of not less than ten drinking fountains, for man and beast, in various portions of the city of Galveston, the localities to be selected by my executors. This bequest, however, is conditioned upon the proviso that the city of Galveston shall obtain an abundant supply of good drinking water within five years after my death; failing in thus obtaining such supply of good drinking water, then I direct that, after the expiration of the time herein limited, one-half of said thirty thousand dollars shall be given to the Orphans' Asylum, mentioned in the fourteenth clause of this will, and the other half thereof to the Woman's Home, mentioned in the seventeenth clause of this will.

NOTE.—The completion of Galveston's new water system in August, 1895, affords an abundant supply of good water, and renders this bequest effective.

OTHER PUBLIC BEQUESTS OF THE LATE HENRY ROSENBERG TO THE CITY OF GALVESTON.

(Died May, 1893.)

XIV.—\$30,000 for erection of Protestant Orphans' Home. Three-story structure, gray brick, with towers and gables. Now near completion, and will be occupied October 1, 1895. Alfred Müller, architect.

XV.—\$30,000 for erection of Grace Episcopal church. Hard Palo Pinto limestone, imposing tower. Complete and occupied October 10, 1895. N. J. Clayton & Co., architects.

XVII.—\$30,000 for erection of Letitia Rosenberg Woman's Home. Three stories, towers, gables, etc.; red brick, white brick trimmed. Approaching completion and will be occupied November 1, 1895. Alfred Müller, architect.

XVIII.—\$65,000 for Y. M. C. A. building. Plans adopted, and bids for its erection until September 30. C. W. Bulger, architect.

XXI.—Public Library.—Residuary Will secures remainder of the estate in building equipment and endowment.

A. J. WALKER, } Executors,
W. J. FREDRICH, }
Galveston, Texas.

NEW PUBLICATIONS.

THE MECHANICAL ENGINEER'S POCKETBOOK. By William Kent. New York: John Wiley & Sons.

The author of this book aspires to be for mechanical engineers what "Trautwine" is to the civil engineers, and it is fair to say that he may be said to have succeeded. As a matter of course the greater part of the book will be of little or no use to architects; nevertheless, there is a considerable quantity of information given at various points that sometimes it is very desirable that the architect should be able to refer to, and the author has given the most recent information on several points of use to him. Ignoring the ordinary rules and tables, we will consider only those which are of interest to the architect. Under the heading of "Strength of Materials" various rules are given, and the latest information and views—of course, in a compressed way. We see Merriman's rules for suddenly applied forces and shocks are given, also the same writer's rules for combined stresses. Very often such notebooks as this avoid such subjects. There is a quotation given from the building ordinance of Chicago; the symbol "S" is used as the maximum permissible load, and the equation for finding the value is given, but it is not stated what denomination S is to be in, whether to be in pounds, tons, etc.; this, however, is the fault of the law itself, for we think it is correctly quoted. Pounds presumably are meant, but it should be definitely stated in the law. There are some thirty pages describing fans and blowers, also heating and ventilation, and there is also a variety of information regarding boilers which is interesting. Under the heading of "Chimneys" it is said: "Chimneys above 150 feet in height are very costly, and their increased cost is rarely justified by increased efficiency. In recent practice it has become somewhat common to build two or more smaller chimneys instead of one large one. A notable example is the Spreckels sugar refinery in Philadelphia, where five separate chimneys are used for one boiler plant of 7,500 H.-P. The five chimneys are said to have cost several thousand dollars less than a single chimney of their combined capacity would have cost. Very tall chimneys have been characterized by one writer as 'monuments to the folly of their builders.' This is very true, and it is well known to many engineers." There is also a section regarding the pulleys and beltings, which is sometimes useful to architects having to erect factories; and also some forty odd pages regarding electrical engineering, some of which are instructive. The index appears to be quite full, and yet it might be fuller; thus, if one was looking for the Chicago building law, he could find no trace of it in the index; at least, we could not find it, for it is not given under the head of "Chicago," nor of "Building," nor of "Law," nor of "Stress." A good index is of great value to any book, and especially to a handbook like this; however, we do not mean to find fault with the book, for it is a most excellent work and a credit in every respect to its author. It is a monument of industry and intelligence.

JAMES R. WILLETT.

OUR ILLUSTRATIONS.

Manufacturing Building for the Western Electric Company, Chicago. Treat & Foltz, architects.

Residence of George H. Taylor, Chicago. Treat & Foltz, architects.

Building for the Bell estate, Cincinnati, Ohio. James W. McLaughlin, architect.

James Street School, Auburn, New York. Julius A. Schweinfurth, architect, Boston.

Examples of Louis XVI. Furniture. Sketched by Stephen M. Wirts.

Staircase, Hotel Lallemand, Bruges, France. Birch B. Long, Delaware.

Century Building, St. Louis, Missouri. Raeder, Coffin & Crocker, architects, Chicago.

Apartment Building, Richmond, Virginia. M. J. Dimmock, architect.

House, Detroit, Michigan.

Building for Johns Hopkins University, Philadelphia, Pennsylvania.

Office Building for Thomas A. Davies, Chicago. Jenney & Mundie, architects. Building situated on Dearborn street, south of Van Buren street, to be a first-class fireproof office building, using steel columns, floor beams, etc., and steel beam foundation; the building to be twelve stories in height, in accordance with present building ordinance, but is constructed with the intention of three additional stories to be added in future; entrance of marble and mosaic floors; corridors also finished in marble and mosaic. Three electric passenger elevators will be put in for service in this building. The exterior will be of dressed Bedford stone for the first three stories, with yellow buff brick and white terracotta trimmings for the work above. The building will be ready for occupancy by May 1st next.

Photogravure Plate: The Olney Art Gallery, Cleveland, Ohio. Coburn, Barnum & Benes, architects.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure Edition.

Residence of Alfred Hoyt Granger, Euclid Heights, Cleveland, Ohio. Alfred Hoyt Granger, architect. Two exterior views are given, and view in living room.

Residence of F. E. Abbott, North Logan avenue, Cleveland, Ohio. Alfred Hoyt Granger, architect.

Residence of George W. Morgan, Euclid and Lincoln avenues, Cleveland, Ohio. Coburn & Barnum, architects.

Clubhouse of Chicago Athletic Association, Chicago. Henry Ives Cobb, architect.

Residence of George W. Maher, Kenilworth, Illinois. George W. Maher, architect, Chicago.

RECENT LEGAL DECISIONS.

MECHANICS' LIENS FOR MATERIAL FURNISHED FOR SEVERAL BUILDINGS.

Where a contractor has under a single contract furnished labor and materials for the construction of several houses, on different lots, he may file a general lien for all the work and material against all the houses and lots. In such case, he having placed the labor and material, may prove the amount which entered into each building, and obtain separate liens.—Williams vs. Judd-Wells Company, Supreme Court of Iowa, 59 N. W. Rep., 271.

WHAT CONSTITUTES USE OF PARTY WALLS IN COMMON.

Where a wooden warehouse is framed against a brick wall, built one-half on each lot, though no joists or other timbers are let into the wall, yet, if the ends of the sides and the roof are attached thereto in a permanent manner, and the wall used as one side of the inclosure, there is a use in common which entitles the owner of the wall to recover from his neighbor for his use, and half the value of such party wall.—Deree, Wells & Co. vs. Weir Shugart Company, Supreme Court of Iowa, 59 N. W. Rep., 255.

WHEN COMMISSIONS ARE DUE.

Where a contract to furnish labor and materials in the erection of a house for certain commissions on the value thereof does not stipulate any time for the payment of the commissions, they do not become due until the performance of the contract; and therefore a judgment in an action brought during the continuance of the contract, for the value of the labor and materials furnished, will not bar a subsequent action for the commissions.—Van Keuren vs. Miller, Supreme Court, General Term, Second Department, 28 N. Y. Supp., 971.

CONSTRUCTION OF BUILDING CONTRACT AS TO ALTERATIONS.

A contract provided that the builder should forfeit \$10 for each day that the building remained unfinished after the time fixed by the agreement for its completion. It also provided that any change in the plans, "either in quantity or quality of the work," should be executed by the builder, "without holding the contract as violated or void in any other respect." During the progress of the work a change was made in the material for the front of the building from brick and granite to Indiana stone, with carved panels and frieze. The difficulty in procuring a prompt delivery of the stone caused delay in finishing the building, and the owners claimed to recoup the stipulated forfeit and set off the loss of rents. By the agreement the owners reserved the right at any time during the progress of the work to make any alterations in the plans and specifications, and it became the duty of the builder to carry them into effect. The provision that the changed plans should be executed without holding the contract as violated, or void in any other respect, should be read in connection with this reserved right. The words, "in any other respect," exclude the implication of any change in terms except such as would result from the alteration of the plans, but not such changes as would be the necessary consequence thereof. Alterations calling for more work and materials, might, of necessity, require more time for the completion of the building. They might be directed so near the end of the work as to make it impossible to complete the building within the time stipulated. In this case the building was where the material fixed for the front by the contract could be purchased in an open market and delivered ready for use in one day. The stone required by the alteration could be procured only at the quarries in Indiana, where an order had to await its turn; and, after delivery, it required weeks of skilled labor to fit it for use in the building. For such delay in the completion of the building as was the necessary consequence of the change of plans by the owners the builder was not answerable, and for it no forfeiture could be exacted. Lilly vs. Person (Supreme Court of Pennsylvania), 32 At. Rep. 23.

MECHANIC'S LIEN CANNOT BE APPLIED TO SCHOOL PROPERTY.

The right to a mechanic's lien has no existence, except by virtue of the statute. While a liberal construction should be given to its provisions, to the end that the purposes of its enactment may not be defeated, still its scope cannot be enlarged by attaching to the language employed a forced or unusual meaning. The rights and remedies of a sub-contractor are, to a certain extent, measured by those of the original contractor. The foundation of the right of either to a lien is the original contract, and, if that is not such as the statute contemplates, and cannot, therefore, be made the basis of a lien in favor of the original contractor, a contractor under him is entitled to none. The original contract must be made with the owner of the land upon which the building is erected, or with some person authorized to act for him, and the resultant lien is coextensive with his interest or claim in the property. An owner is one who has dominion over that which is the subject of the ownership. He has the right to make such use of it, consistent with the right of others, as he may see fit. The ownership may extend to the entire thing, or may be

limited to an interest in it; but, whatever is the subject of the ownership, it is held by the owner for his own individual benefit. For the purposes of the act, an assignable, transferable or conveyable interest or claim in the thing constitutes ownership, but the right to assign, transfer or convey resides in the person having the interest or claim, to be exercised at his pleasure, so that his relation to the interest or claim is that of "owner" under the general definition of the term. By the terms of the statute all school property within the district is held by the school board in trust for the school district, for the benefit of the school, and the school is a state institution. We do not think that either the school board or the school district is, within any definition of the term, the "owner" of the school property; and the provisions of the mechanic's lien law cannot be applied to public school buildings. But it does not follow that the lienor is without a remedy. He has recovered judgment against his immediate contractors. A school district is a quasi-corporation, and not subject to process in garnishment, but, if the board has money in its hands belonging to the contractors, and the lienor is unable to realize anything upon his judgment, the money can be reached by a proceeding in equity. A court of chancery will subject property and funds to the satisfaction of a judgment, when they cannot be reached by legal process, and the judgment cannot otherwise be satisfied. *Florman vs. School District No. 11, El Paso County, Court of Appeals of Colorado.* 40 Pac. Rep. 469.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Buffalo, N. Y.—State Architect Perry, at Albany, has about completed plans for a two-story brick and stone addition, 320 by 34 feet, to be built on the Buffalo State Insane Asylum. It is to be used as a hospital; estimated cost \$150,000; iron beams will be used in the framework; interior will be equipped with first-class plumbing, steam heat, lavatories, closets, etc. Dr. Arthur H. Hurd is superintendent of the asylum.

Architects Eckel & Ackerman: For George Weigel, a three-story brick business block; to be built on the corner of Walden avenue and Bowen street; dimensions 60 by 90 feet; cost \$18,000. For Thomas Templeton, three-story brick building for stores and flats; dimensions 50 by 80 feet; cost \$14,000; the building will be divided into two stores and four apartments; to be fitted with electric bells, hot-water heating apparatus, sanitary plumbing.

Architect W. H. Archer: For Dunkirk Free Academy, a three-story brick and stone addition; dimensions 132 by 80 feet; cost \$40,000. For St. Mark's church, Buffalo, a one-story frame and stone guildhouse; dimensions 32 by 100 feet; estimated cost \$5,000.

Architect F. W. Caulkins: A sixteen-room school building, three stories high; to be of stock brick with stone trimmings; to be built at the corner of Delavan avenue and Moselle street; estimated cost \$45,000. Board of public works will soon ask for bids for construction. R. G. Parsons is secretary to the board.

Architect August Esenwein: For Alfred Schoellkopf, a two-and-a-half-story brick and stone residence, 40 by 90 feet; to be built on Delaware avenue, near Allen street; estimated cost \$40,000; interior of house will be finished in hardwood; to be equipped with all modern improvements. Also plans for a three-story, sixteen-room school building, of large dimensions; to be built on the Mineral Spring road.

Architect F. H. Sovern: For Van Horn Ely, a three-story brick apartment house, 60 by 110 feet; to be built on the south side of Hudson street, opposite Plymouth avenue; will be equipped with electric bells, speaking tubes, gas and steam heat, gas fixtures, sanitary plumbing, etc.

Architect William M. Luther has prepared plans and will build for himself, at the southwest corner of East Balcom and Masten streets, a three-story brick apartment house, to cost \$30,000.

John W. Gibbs has had plans prepared for three two-story frame dwellings, 26 by 46 feet; to be built at Nos. 931, 933, and 937 Elmwood avenue; they will cost about \$6,000 each.

Architect George J. Metzger: For Philip Becker & Co., a six-story brick business building, 60 by 117 feet; to be built on the west side of Pearl street, between Eagle and Court streets; estimated cost about \$50,000. For Mrs. L. C. Wilson, Olean, a two-story frame dwelling; to be built on Union street, adjoining the Foran library; cost about \$10,000.

It is reported that a theater costing \$150,000 is to be built on Lafayette square. No local architect is working on the plans. If they are being prepared at all the work is being done in New York.

Burlington, Wis.—Architect J. G. Chandler, Racine, Wisconsin: For school board, a two-story and basement pressed brick and stone school; size, 122 by 85 feet; cost, \$55,000. For school board, Sparta, Wisconsin, a two-story and basement pressed brick and stone school; size, 90 by 108 feet; cost, \$20,000.

Chicago, Ill.—Architect Dwight H. Perkins: For Wm. E. Lawrence, a two-story basement and attic residence, 33 by 50 feet in size; to be erected at Riverside; it will be of frame construction with brick basement, have hardwood interior finish, mantels, electric fixtures, heating, etc.

Architect D. S. Pentecost: For Frederick L. Johnson, a two-story frame residence, 28 by 50 feet in size; to be erected at River Forest; it will be of frame, with stone basement, have mantels, electric fixtures, furnace, etc. Also, making plans for a two-story and basement flat building, 50 by 60 feet in size; to be erected at Adams street, near Kedzie avenue; it will be of buff Bedford stone front, with copper bays and cornice, have hardwood finish, the modern sanitary plumbing, mantels, gas fixtures, electric bells, speaking tubes, etc. Also, a building on West Polk street, to be of stone front and all improvements. Also, on Harvard street, a two-story frame flat.

Architect F. W. Kirkpatrick: For J. E. Patterson, a pretty two-story frame residence; to be erected at River Forest; it will have a stone basement, the modern sanitary improvements, electric lights, furnace, etc.

Architect J. M. Hoskins: For John J. Cresap, a three-story store and flat building, 25 by 85 feet in size; to be built at 1609 Harrison street; it will have a front of buff Bedford stone, the modern sanitary plumbing, gas fixtures, mantels, furnaces, etc.

Architect B. S. Elmendorf: For Frank Murphy, a two-story flat building, 26 by 64 feet in size; to be built at the southwest corner of Van Buren street and Homan avenue; it will have a stone front, hardwood finish, mantels, gas fixtures, sanitary plumbing, furnaces, etc. For G. F. Gilbert, a two-story and attic residence, 24 by 69 feet in size; to be erected at Jackson boulevard; the front will be of blue Bedford stone; will put in all the modern plumbing, gas fixtures, mantels, electric bells, speaking tubes, furnace, etc. For F. P. Finnegan, a three-story stone flat, at West Harrison and Fortieth streets; stone front, sanitary plumbing, mantels, gas fixtures, etc.

Architects Kelley & McMullen: For E. Abbott, a two-story basement and attic residence, 30 by 45 feet in size; to be erected at Chicago Heights; to be of frame construction with stone basement, have hardwood interior finish, mantels and sideboards, the modern plumbing, electric fixtures, furnace.

Architect Niels Buck: For John W. Jensen, a three-story store and flat building, 25 by 70 feet in size; to be erected at the corner of Congress street and California avenue; to be of stone and pressed brick front, have interior

finished in oak, the modern sanitary improvements, gas fixtures, mantels, furnaces, etc. For George W. Walker, two seven-room frame houses on Paulina street, near Montrose boulevard; to have brick basements, the modern plumbing, gas fixtures, furnaces, etc. For Henry Henderson, a two-story double house, on Perry street, Ashland addition to Ravenswood; to have a Bedford stone front, the modern plumbing, mantels, gas fixtures, electric bells, furnaces. Also, two-story residence, 28 by 54 feet in size; to be built at Logan square; to have a stone front, pressed brick sides, the best of sanitary improvements, mantels, gas fixtures, furnace, etc.

Architects Tuthill & Atcheson: For T. C. H. Wegeforth, three three-story residences, 60 by 60 feet in size; to be erected at Central Park avenue, near Monroe street. To have handsome buff Bedford stone fronts, hardwood interior finish, the best of modern open nickel-plated plumbing, mantels, consoles, gas and electric fixtures, furnaces, etc.

Architect Robert S. Smith: For John S. Rydell, a handsome buff Bedford stone front residence, to be erected at Michigan avenue between Fifty-first and Fifty-second streets. It will be three-story, 25 by 76 feet in size; have hardwood interior finish, mantels, sideboards, consoles, the best of modern sanitary improvements, furnace, etc.

Architects Hessenmueller & Meldahl: For J. W. Conover, a three-story and basement store and flat building, 50 by 120 feet in size; to be erected at Forty-seventh street and St. Lawrence avenue. The front will be of buff pressed brick with buff Bedford stone trimmings, the interior to be finished in oak and have the best of modern sanitary improvements, mantels, sideboards, consoles, electric and gas fixtures, electric light, electric bells, speaking tubes, steam heating. For A. H. Sweet, made plans for a handsome frame cottage 40 by 50 feet in size; to be erected at Longwood. It will have a stone basement, hardwood interior finish, the modern sanitary improvements, mantels, sideboards, consoles, furnace, etc. Also made drawings for a three-story and basement store and flat building, 25 by 65 feet in size; to be erected at Division street. It will have a buff Bedford stone front, interior to be finished in oak and Georgia pine, have the sanitary improvements, laundry fixtures, mantels, electric bells, speaking tubes, and steam heating.

Architects H. T. Kley & Co.: For Julius Paetzel, a two-story and basement store and flat building, 25 by 90 feet in size; to be erected at the corner of Grand avenue and Artesian avenue. It will have a pressed brick and stone front, the sanitary improvements, mantels, gas fixtures, bells, speaking tubes, etc. For Julius Klein, a two-story frame flat, 22 by 45 feet in size; to be built at North Humboldt street near Franklin avenue; will put in the sanitary improvements, gas fixtures, furnaces, etc. For Mr. T. H. Hoeft, a two-story-basement and attic flat building; to be built at 622 North Hoyne avenue. It will have a buff Bedford stone front, the best of sanitary improvements, gas fixtures, hardwood finish and mantels, sideboards, hot water or steam heating. For M. Herbst, they planned a three-story store and flat building 24 by 70 feet in size; to be erected at North avenue near Commercial street. To be of stone and pressed brick front, have the modern plumbing, mantels, furnaces.

Architects Ostling Brothers: For Mrs. Kate Christman, a four-story store and flat building, 76 by 100 feet in size; to be erected at Forty-sixth and State streets. It will be of pressed brick and stone front, the ordinary sanitary improvements, mantels, gas fixtures and steam heating.

Architect S. V. Shipman: For William Blair, a seven-story building at 430 Wabash avenue. It will be 75 by 173 feet in size; to be of pressed brick and stone front have the necessary plumbing, elevators, electric light, steam heating, etc.

Architects Wilson & Hawes: For Benjamin Mason, a three-story and basement residence, 25 by 75 feet in size; to be erected at Grand boulevard just south of Forty-third street. It will have a handsome front of brownstone, the interior to be finished in hardwoods and have mantels of special design, sideboards, consoles, the very best of sanitary improvements, gas and electric fixtures, speaking tubes, electric bells, marble and tile work, and steam heating.

Architect Cicero Hines: For Joseph Fish, a three-story residence, 30 by 80 feet in size; to be erected at Grand boulevard. It will have a handsome buff Bedford stone front, hardwood interior finish, mantels, sideboard and consoles, the best of open, nickel-plated sanitary plumbing, gas and electric fixtures, gas ranges and fireplaces, steam heating, etc. For Mr. M. Williams, a two-story flat building, 40 feet front; to be erected at Thirty-sixth and Parnell streets. It will have a pressed brick and stone front, the modern plumbing, gas fixtures, mantels, furnaces, etc.

Architects Pridmore & Stanhope: Made plans for a four-story and basement apartment house, 100 by 90 feet in size; to be erected at Forty-first street and Forest avenue for T. E. Wells. It will have a buff Bedford stone front, the modern sanitary improvements, electric light, hardwood interior finish, mantels and sideboards, gas ranges and fireplaces, steam heating, etc.

Architect W. K. Johnston: For Mr. James, a two-story residence 39 by 51 feet in size; to be erected at Highland Park. It will be of frame, with brick basement, have hardwood interior, mantels, gas fixtures, etc.

Architects Swift & Hall: Made plans for a two-story residence, 32 by 75 feet in size; to be erected at Madison avenue, between Forty-ninth and Fiftieth streets. It will be of rock-faced Bedford stone basement and of frame above, have hardwood interior finish, mantels, sideboards and consoles, the best of modern sanitary improvements, gas and electric fixtures, furnace, etc. Also made plans for a pretty two-story and basement residence, 33 by 65 feet in size; to be erected at Rogers Park. It will be of frame construction with stone basement, have hardwood finish, electric wiring, the best of modern plumbing, furnace, etc.

Architect George S. Kingsley: For C. M. White, a two-story and basement residence, 25 by 50 feet in size; to be built at Montrose boulevard, Buena Park. It will have a buff Bedford stone front, hardwood finish, the modern plumbing, mantels, gas fixtures, furnace.

Architects Hyde & Castner: For A. A. Moore, a two-story and basement residence, 37 by 57 feet in size; to be erected at Marshalltown, Iowa. It will be of frame with stone basement, have hardwood interior, mantels, gas and electric fixtures, furnace.

Architects D. H. Burnham & Co.: Made plans for a handsome two-story basement and attic residence, 48 by 70 feet in size; to be erected at the south-east corner of Michigan avenue and Thirty-third street for C. H. Schroeder. It will have two fronts of stone, hardwood interior finish, electric light, steam heating, etc. Cost, about \$50,000.

Architect L. G. Hallberg: For E. H. Fishbown, a two-story residence, to be built at Perry street near Roscoe. It will be of pressed brick and stone front, have the modern plumbing, furnace, etc. For Axel Peterson, a three-story flat building, 25 by 57 feet in size; to be built at Briar Place near Halsted street. It will have a stone front, copper bay and cornice, the sanitary plumbing, gas fixtures, mantels, laundry fixtures, steam heating, etc.

Architects Dinwiddie & Newberry: For Maurice Von Platten, twelve two-story houses, 240 feet frontage; to be erected at the northwest corner of Homan avenue and Fulton street. They will have pressed brick and stone fronts, all the sanitary improvements, gas fixtures, etc.

Architect W. J. Brookes: For George Koen, two three-story residences, 30 by 70 feet in size; to be erected at Kimbark avenue and Fifty-second street; they will have Bedford stone fronts, porches and steps, hardwood interior finish, the best of open plumbing, gas and electric fixtures, electric light, steam heating, etc.

Architect Robert Rae: For S. A. Barber, a four-story store and flat building, 50 by 123 feet in size; to be erected at Thirty-sixth and State streets; it will have pressed brick with Bedford stone trimmings, hardwood finish, the sanitary improvements, gas and electric fixtures, laundry fixtures, mantels, electric light, steam heating.

Architect George S. Bannister: For J. B. Bannister, a three-story flat building, 25 by 60 feet in size; to be built at Wharton avenue; it will have a buff Bedford stone front, the modern sanitary improvements, gas fixtures, mantels.

Architect W. A. Youmans: For W. J. Meskimen, a four-story apartment house, 44 by 75 feet in size; to be erected at Calumet avenue, near Thirtieth street; it will have a buff Bedford stone front, hardwood finish, mantels and sideboards, gas and electric fixtures and steam heating.

Architect Morrison H. Vail: For Peter Batzen, a two-story and basement flat building, 25 by 60 feet in size; to be built at Lincoln avenue near Wilson, Ravenswood. It will be of pressed brick and stone front, have all the modern

improvements, furnace, etc. Also made plans for two two-story residences to be built on Leland avenue and Wright street, Ravenswood. They will have pressed brick and stone fronts, copper cornice and bays, oak and pine interior finish, the modern plumbing, mantels, gas fixtures, furnaces.

Architect H. H. Richards: For George Safford, a two-story flat building, 25 by 60 feet in size; to be built at Englewood; the sanitary plumbing, mantels, gas fixtures, etc. Also, made plans for a three-story residence, 50 by 100 feet in size; to be erected at Drexel boulevard; it will have a handsome brown-stone front, Spanish tile roof, hardwood interior, mantels, sideboards and consoles, hot-water heating, electric light, etc. Also, a two-story brick barn, 35 by 50 feet. Also, made plans for a three-story store and flat building, 50 by 100 feet in size; to be erected at Wallace and Thirty-ninth streets; to have a stone front, Georgia pine finish, the modern sanitary plumbing, mantels, gas fixtures, steam heating, etc.

Architects Handy & Cady: For C. L. Hutchinson, a two-story store and flat building; to have two fronts, 79 and 76 feet respectively; to be erected at Eighteenth street and Canalport avenue; to be of pressed brick and stone, have the modern plumbing, mantels, gas fixtures.

Architect A. Strandel: For N. A. Nelson, a three-story apartment house, 45 by 70 feet in size; to be erected at Orchard street, near Wrightwood avenue; it will have a handsome buff Bedford stone front, hardwood interior finish, sideboards and mantels, gas fixtures, laundry fixtures, electric bells, speaking tubes, steam heating, etc.

Architects Huchl & Schmid: For R. G. Schmidt, a three-story flat building, 25 by 66 feet in size, to be erected at Barry avenue between Clark street and Evanston avenue; it will have a stone front, nickel-plated plumbing, marble entrance, oak interior finish, mantels and sideboards, gas fixtures, steam heating, etc.

Architects Church & Jobson: For W. H. Colvin, seventeen two-story residences; to be erected at the corner of Sixty-fifth street and Woodlawn avenue. They will have handsome fronts in various designs in pressed brick with stone trimmings, hardwood finish, mantels, gas fixtures, etc.

Architect Jules de Horvath: For A. Ginsberg, a three-story and basement apartment house, 25 by 75 feet in size, to be erected at Winchester avenue between Taylor and Polk streets; stone front, hardwood finish, mantels, gas fixtures, etc.

Architect Robert S. Smith: For John S. Rydell, a three-story residence, 25 by 74 feet in size, to be erected at 5147 Michigan avenue. It will have a very handsome front in buff Bedford stone and red slate roof; the interior to be finished in mahogany, birch and oak, have tile and marble work, specially designed sideboards, mantels and consoles, the best of open plumbing, electric light, hot-water heating, etc.; cost \$20,000. Also, two-story brick and stone barn to match, size 33 by 35 feet.

Architect George Shonberg: For J. H. Carmody, a two-story and basement flat building, 25 by 75 feet in size, to be built at Carlisle place. It will be of stone front, have the modern plumbing, etc. Also made plans for a two-story post office; to be of pressed brick and stone; to be built at Lockport, Illinois.

Architect C. E. Brush made the plans for the Northern Illinois State Normal School, to be erected at De Kalb. It will be a handsome building, two and three stories in height; to be of stone front, have hardwood finish, the modern sanitary improvements, electric light, steam heating, etc.

Architect C. A. Strandel: For N. E. Nelson, a three-story and basement flat building, 45 by 70 feet in size, to be erected at Orchard street, near Deming court. It will have a stone front, modern plumbing, etc. Also making plans for remodeling three-story building at 144 Oak street for M. Wetterberg; pressed brick and stone, galvanized iron bay, modern plumbing, mantels, gas fixtures, etc.

Architect George W. Mahr: For J. L. Cochran, three three-story residences, to be erected at Edgewater, to be of frame, stone basement, have all the modern plumbing, heating, etc. For E. G. Barrett, a handsome two-story residence, 45 by 40 feet in size, to be erected at Kenilworth; to be of frame with stone basement; have all the modern improvements, hot-water heating, electric light.

Architect W. T. Branitzky: For Robert Wettstein, a two-story residence, 32 by 50 feet in size, to be built at Austin; to be of frame with stone basement, have mantels, gas fixtures, furnace.

Architects Dinwiddie & Newberry: For A. E. Hall, two three-story residences at Sixty-fifth street and Greenwood avenue; stone fronts, hardwood finish, mantels, heating, etc.

Architects Raeder, Coffin & Crocker have begun work on the foundation for the Century building at St. Louis. It will be a very handsome structure; ten stories high, 228 feet front and 128 feet deep, fronting on three streets with an alley in the rear; it will be of Georgia marble on three sides, have mosaic floors, marble wainscoting, electric light plant, engines, boilers, dynamos, steam heating, eight elevators, the modern plumbing, etc. It will be of steel construction and thoroughly fireproof; it will be a theater and office building. The theater will have accommodation for 2,700 people and will be of the most modern construction, and will be finished probably this year or for the winter season. It will be the only fireproof theater in St. Louis.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall: There is an unusual dearth of building items this month, even though it is October, and near the end of the season. It is possible, however, that if we have an open fall there may be buildings started and completed ere the snow falls. Prices have been unusually low the entire season, and it is rather a mystery to me why more large buildings have not been erected. I am glad to say, nevertheless, that a very hopeful feeling, and not without cause, exists for next spring's work. There is a dearth of projects absolutely new in the building world. Many of the architects are yet out of the city and contractors are not looking forward to any rush of work for at least a month.

Something tangible is known at last in the Music Hall matter. At a special meeting of the trustees, called for Monday next at 3 o'clock, at the Queen City Club, the plans drawn by Architect Hannaford will be formally inspected, and arrangements made for the reception of bids. As is already known, the \$100,000 necessary to finish the work has now been insured, and it is a part of the architect's contract that the work is to be completed in time for the May festival.

Since the sale of the Smith building, on Walnut, by the sheriff, a week ago, all kinds of stories have been printed as to who was the purchaser, and what was to be done with it, but they have all been denied, at least in part. One authority says that the Atlas National Bank people were the parties, represented by Theodore Mayer, when it was knocked down to him at \$120,500. Absolute ignorance was professed when inquiry was made yesterday at the cashier's office. The Smith building was designed by Crapsey & Brown, of this city, built in 1884 or 1885, and cost \$75,000. It is eight stories high, has a frontage of 37 feet, and is 99 feet deep on Government alley.

The drawings of the new Bell block at Sixth and Vine streets will be completed by Architect McLaughlin this week, and be ready for bids sometime the coming week.

Architect A. O. Elzner will leave Sunday for Hot Springs, Virginia. Mr. Elzner is the architect for the Chesapeake & Ohio Railroad Company in the building of the new Homestead inn at that place, and other improvements thereabouts. Bids will be opened Monday for the work on the new Homestead, which will cost \$100,000, and it is to be ready for the spring opening.

Mr. Harry Hurlbut will erect a four-story store and flat building on the northeast corner of Court and Elm streets. Each is at work on drawings, but bids will not be taken on the work before January, it is thought. The building will take the place of some old ones to be dismantled soon, will have a frontage of 32 feet on Elm and 90 feet on Court, and will cost between \$12,000 and \$15,000.

Richter & Wessling have completed plans for a handsome pressed brick residence for William Van Hart, to be built on June street, near May, Walnut Hills; it will be Colonial in style, have eight rooms, two-and-a-half stories, and cost about \$5,500.

Mr. W. R. Crapsey, of Crapsey & Brown, is in Lafayette, Ind., where he yesterday let the contract for the building of the new Ninth Street Methodist church in that city; it will be of brick and stone, and will cost about \$25,000.

Architects Sweeney & Robinson report as follows: Norwood (Ohio) school-house; materials: pressed brick, slate roof, Acme plaster, hot-air furnace,

slate blackboards, closets, etc.; cost, \$30,000. For Nicholas Feckter, two frame residences, with slate and shingle roofs, grates, mantels, gas plumbing, etc.; cost, \$6,000. Flat for Mrs. Margaret Curry; materials: brick, tin roof, gas, grates, mantels, plumbing, etc.; size, 50 by 35 feet; three stories; \$4,800. Three houses, brick, cement and weatherboard, for Messrs. Hofinger & Hopkins, Cincinnati, to contain modern improvements; cost not given.

Mr. William Ewald (Price Hill), Cincinnati, will build a frame residence with modern improvements, to cost \$4,000.

Dayton, Ohio.—Architects Vincent & Gregg: For National Cash Register Company, a four-story and basement, steel and pressed brick business building; size 50 by 50 feet; cost \$50,000.

Detroit, Mich.—Architects Malcombson & Higginbotham: For board of education, Springwells, Mich., a twelve-room school building, buff brick with stone trimmings; cost, \$25,000. Have also plans for frame church to be built at Highland Park; cost, \$7,500.

Architect Gustave Mueller: For Robert Stock, a casino and dancing hall, to be erected on Jefferson avenue near Field avenue; cost, \$12,000.

Architects Mason & Rice: Have plans completed for a two-story brick residence to be built on Virginia avenue near Woodward avenue; cost, \$5,500. Same firm also has plans to remodel and alter Essex County (Ont.) courthouse; cost, \$20,000.

Architect Gordon W. Lloyd: For David Whitney, a stable, 36 by 56 feet, two stories; to be built of Ohio bluestone; cost, \$12,000.

Architect Harry L. Stevens: For Henry L. Jones, Jr., a two-story brick residence, stone trimmings and slate roof; cost, \$6,000. Same architect has also plans for a block of seven stone residences, 50 by 147 feet, to be built at corner of Abbott and Second streets; cost, \$18,000.

Architects John Scott & Co.: For H. C. Van Husan, remodeling a residence and an office building on Miami avenue; cost, \$7,500. Also for Dr. M. Wilson, a two-story store and frame residence; cost, \$5,500.

The company's engineer for the Detroit Citizen Street Railway Company: two street-car houses, 94 by 226 feet and 48 by 444 feet, one to be erected on Jefferson avenue and the other on Holden avenue; cost, \$20,000.

Architect E. French: A block of two-and-one-half-story brick residences, with stone trimmings, to be built on Commonwealth avenue; cost, \$9,000.

Architect Harry J. Kill: For John Teldon, a three-story brick hotel, to be built at Trenton, Mich.; cost, \$7,500. Same architect also has plans completed for a block of brick store and residence flats to be built on Hastings street for Jacob Greenstone; cost, \$5,500.

Architect Edward C. Van Leyen: For F. B. Sibley, stone and frame residence, to be erected at Trenton, Mich.; cost, \$5,000. Same architect, for Lincoln Abraham, a two-story frame residence and a barn, to be built on Seward avenue; cost, \$5,000. Also for John Van Loon, a three-story frame building with hall above, 58 by 70 feet, corner Myrtle and Fourteenth streets; cost, \$7,500.

Also for William R. Cole, a two-story brick residence, 35 by 60 feet to be erected near Mt. Clemens on the Clinton river; cost, \$5,500. Also for Fuller & Van Husan, three brick and stone residences, three stories high, to be built on Virginia avenue; cost, \$7,000 each.

Dubuque, Iowa.—Architect Thomas Carkeek: For John Ernsdorf Sons & Co., a five-story and basement brick business building, to be erected on Main and Jones streets, size 70 by 100 feet; cost \$18,000.

Independence, Mo.—Architect J. C. Williams, Kansas City, Mo.: For J. McCoy, a two-story and basement opera house and office building, to be erected on Maple avenue; size, 83 by 71 feet; cost, \$20,000.

Indianapolis, Ind.—Architect W. N. Bowman: For Parry Manufacturing Company, Indianapolis, Indiana, a five-story and basement brick and stone factory; size, 189 by 89 feet; cost, \$35,000.

Joliet, Ill.—Architect H. Boehme: For Howard Snap, a brick residence; cost, \$5,000. For Illinois state prison, a three-story brick hospital, to be erected in state prison walls; size, 48 by 114 feet; cost, \$25,000.

Jackson, Minn.—Architect F. W. Kinney: For board of education, a school building; cost \$25,000.

Knightstown, Ind.—Architects La Belle & Larmer: For the I. O. O. F., a three-story Bedford stone hall; size, 64 by 130 feet; cost, \$30,000.

Lincoln, Neb.—Architects Fisher & Lowrie: For University of Nebraska, a library; cost \$70,000.

Lockport, Ill.—Architect H. Boehme, Joliet, Illinois: For W. T. Meyers, four three-story brick store, office and flat buildings, to be erected on State street; size, 80 by 78 feet; cost, \$15,000. For L. Schiebe, a three-story brick store and flat building, will also be used for post office; size 48 by 60 feet; cost, \$7,000. For Spangler & Weier, a two-story brick store and flat building; size 40 by 70 feet; cost, \$9,000.

Logansport, Ind.—Architect J. C. Crain: For Masonic order, a brick and stone Masonic temple, four-story and basement, to be erected on Fourth street; size, 83 by 103 feet; cost, \$34,000.

Lorain, Ohio.—Architects Kramer & Wurmser: For committee, F. P. Bins et al., Lorain, Ohio, a cut stone church; cost, \$25,000.

Louisville, Ky.—Architects Maury & Dodd: For J. C. Hughes, a brick and stone residence, to be erected on St. James court; cost, \$5,000. For S. Jacobs, a brick and terra-cotta store and flats, to be erected on Market street between Seventh and Eighth streets; cost, \$5,000. For Patrick F. Walsh, a brick and redstone residence, to be erected on Third street and Magnolia avenue; cost, \$12,000. For Joe T. Burt, a brick residence, to be erected on Third street near B street; cost \$7,500. For Mrs. James Clarke, a brick and terra-cotta residence, to be erected on Third and St. Catherine streets; cost, \$7,500.

Milwaukee, Wis.—Architect W. D. Kimball: For William Becker, to be built in the spring at North Point, a residence; cost \$40,000; also a stable; cost, \$12,700.

Minneapolis, Minn.—Architect Warren H. Hayes: For Vandalia, Illinois, a pressed brick and stone church; 300 seatings besides Sunday-school and class rooms, size 60 by 100 feet; cost, \$10,000.

Oscalosa, Iowa.—Architects Kramer & Simonson, New York: For M. E. church, a one-and-a-half-story and basement brick and stone church, size 80 by 108 feet; cost \$30,000.

Owosso, Mich.—Architect Sidney J. Osgood, Grand Rapids, Michigan: For Owosso, Michigan, Baptist church; cost \$30,000.

South Bend, Ind.—Architects Parker & Austin: For South Bend Athletic club, a two-story brick and stone clubhouse; cost \$16,000.

Springfield, Ohio.—Architect Charles A. Cregar: St. John's German Evangelical Lutheran church, a two-and-a-half-story basement pressed brick and brownstone church; cost \$25,000.

St. Louis, Mo.—Architect J. L. Wees: For S. Bowman, a five-story and basement pressed brick and stone business college, to be erected on northwest corner Eleventh street and Franklin avenue; cost, \$40,000.

Architects C. W. H. Brown & Co.: For Dr. Robert J. O'Reilly, a two-story and basement buff Roman brick residence, size 50 by 73 feet; cost, \$25,000. Architect J. Conardi: For Bishop Kain, D.D., a stone church, being erected on Arsenal and Lynch streets; cost, \$200,000.

Architect A. M. Beinke: For Charles Braner, a three-story pressed and ornamental brick store and office building, size 26 by 76 feet; cost, \$12,000.

Architects C. W. H. Brenn & Son: For Dr. Robert J. O'Reilly, a brick and stucco residence and office, size 50 by 70 feet; cost, \$12,000.

Architect Charles K. Ramsay: For Ellis Wainwright, a two-story brick store and office building, size 70 by 109 feet; cost \$30,000.

Architects Greable & Webber: For W. R. Donaldson, a two-story and basement, pressed brick and stone residence, to be erected on Lindell, between Taylor and Euclid streets, size 64 by 64½ feet; cost, \$30,000.

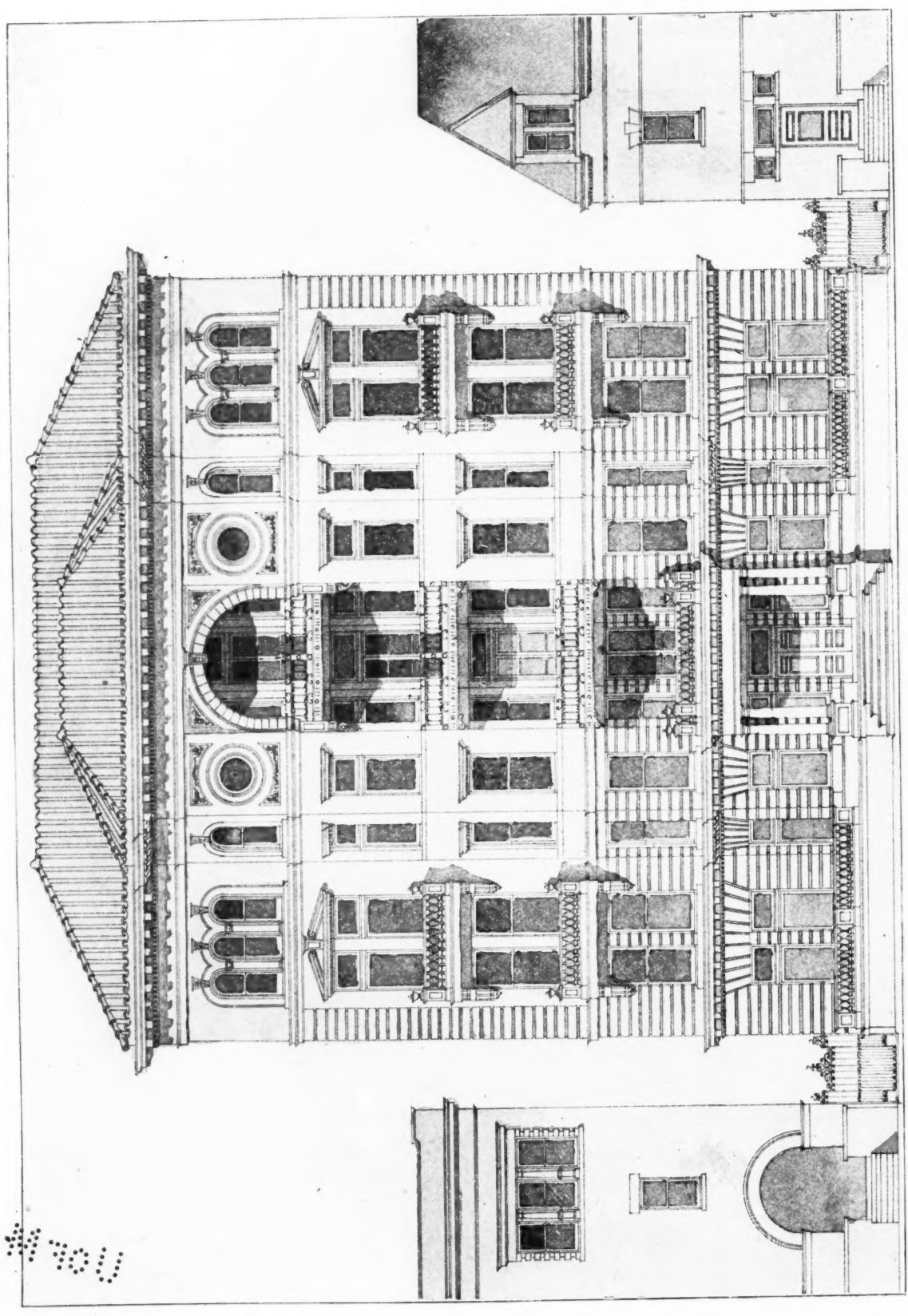
Toledo, Ohio.—Architect A. B. Sturges: For W. H. Currier, a six-story and basement brick and terra-cotta hall and piano warehouse, size 35 by 120 feet; cost \$35,000.

Warren, Ohio.—Architects La Belle & French, Marion, Indiana: For Trumbull county, a two-story and basement stone courthouse, size 93 by 187 feet; cost \$200,000.

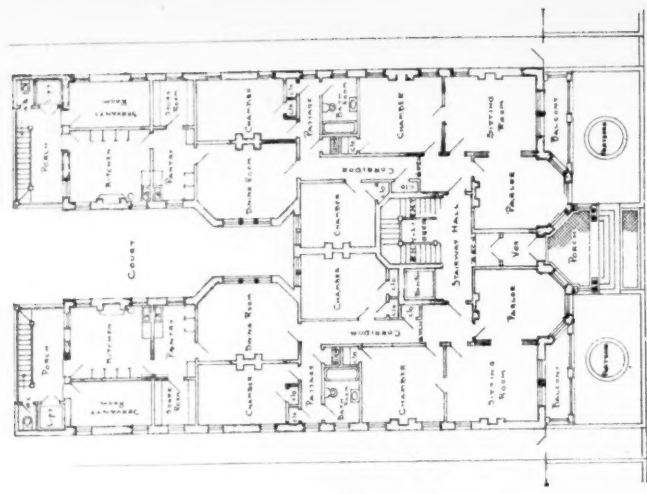


RESIDENCE IN DETROIT, MICHIGAN.

1058

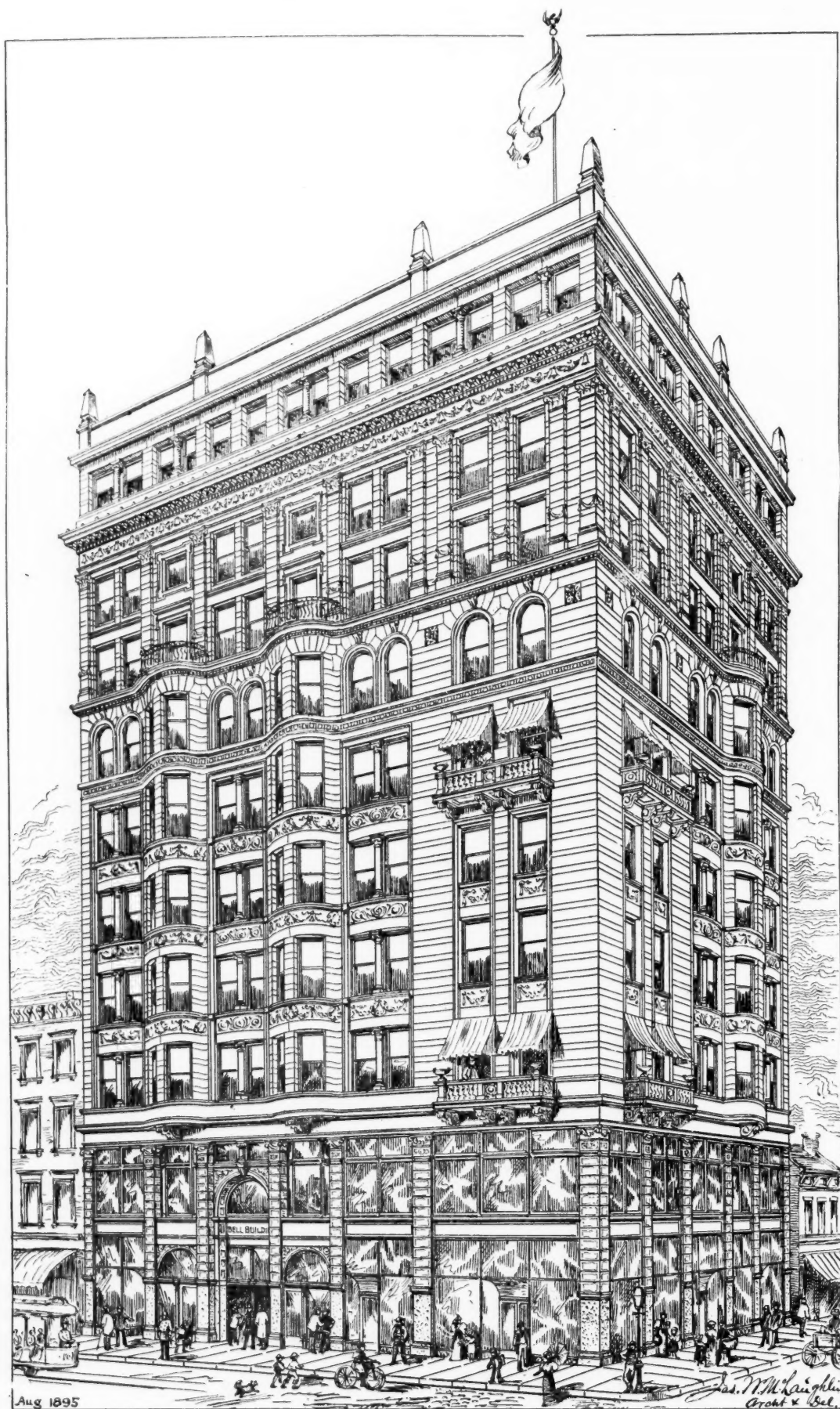


APARTMENT BUILDING, RICHMOND, VIRGINIA.
M. J. DIMMOCK, ARCHITECT.



PLAN.

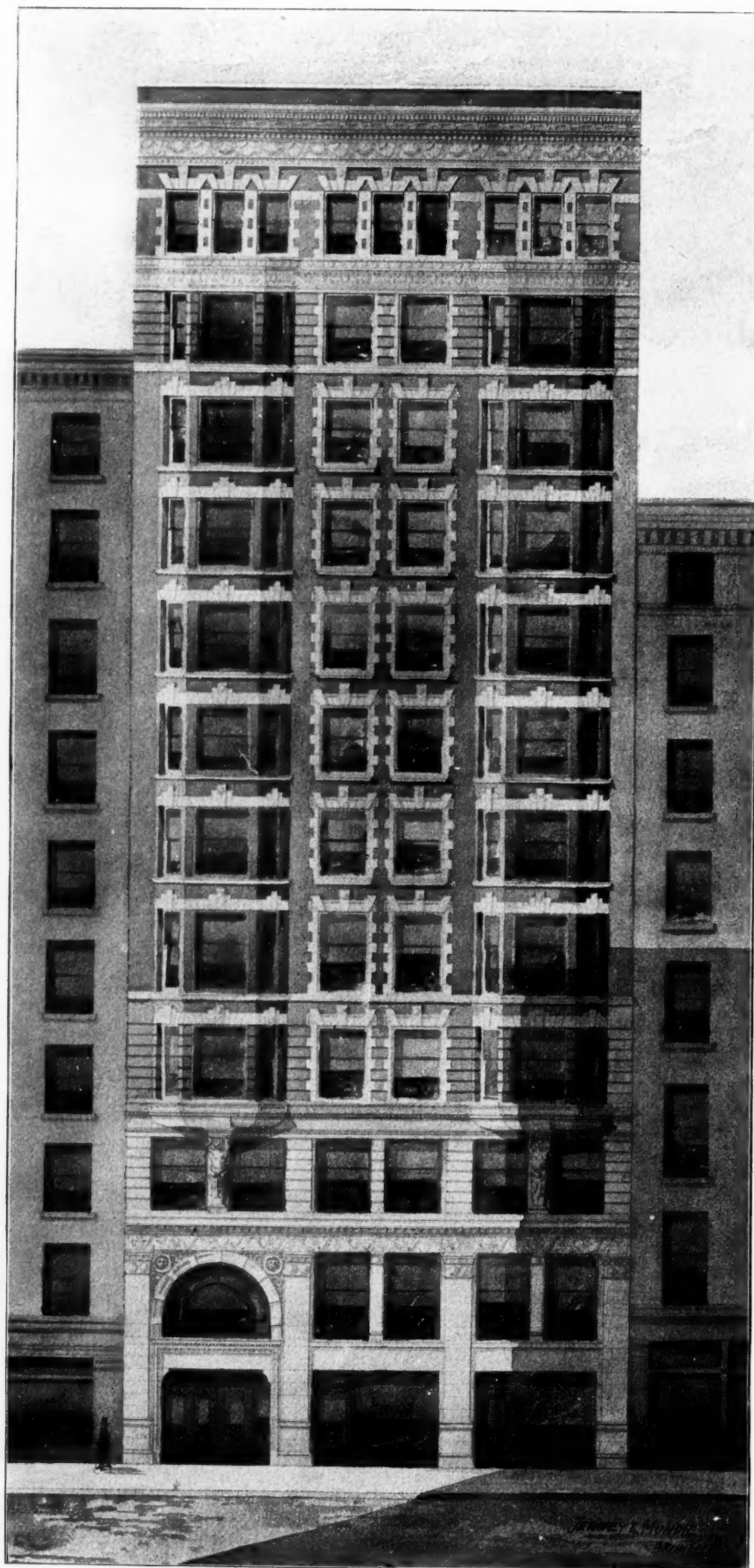
100



BUILDING FOR THE BELL ESTATE, CINCINNATI, OHIO.

JAS. W. McLAUGHLIN, ARCHITECT.

Vor



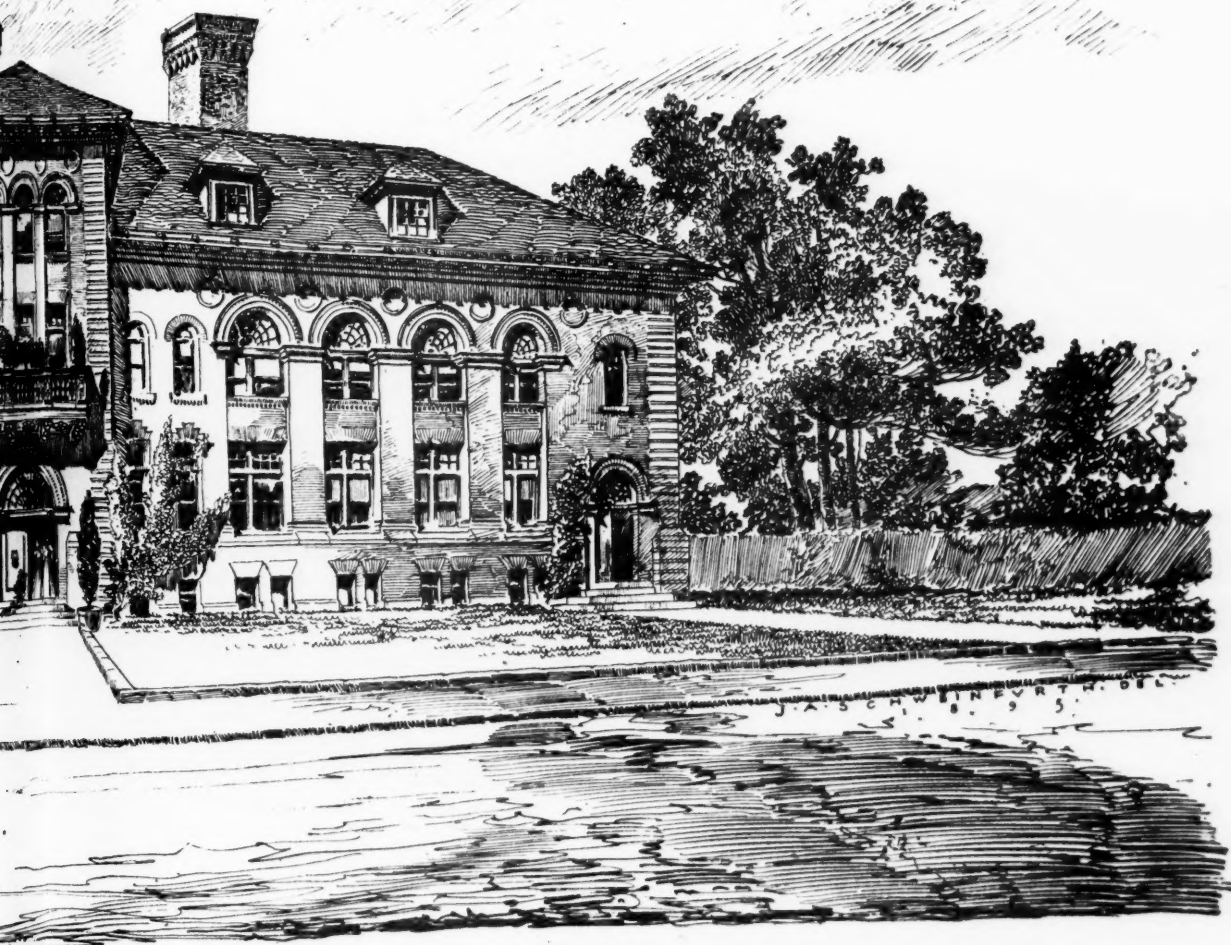
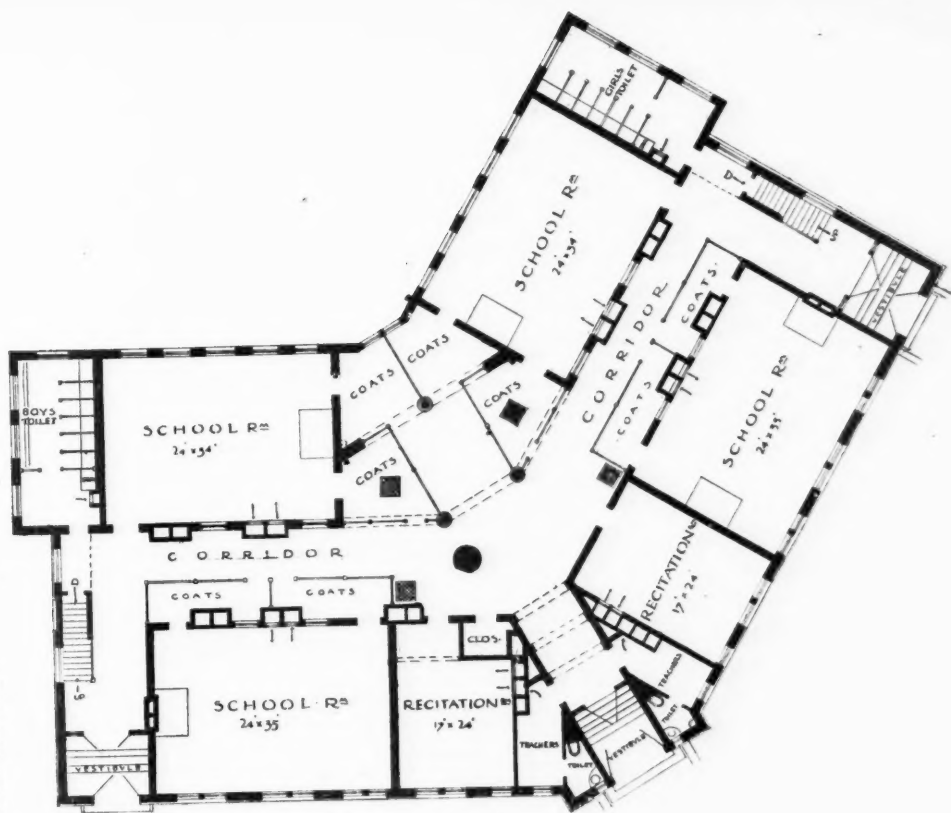
OFFICE BUILDING FOR THOMAS A. DAVIES, CHICAGO.

JENNEY & MUNDIE, ARCHITECTS.

JAMES STREET SCHOOL
·A V B V R N · N · Y ·
JVLIVS · A · SCHWEINFVRTH · ARCHT ·
· B O S T O N ·
· M D C C C X C V ·



UNIVERSITY OF CHICAGO
12 OCT 195

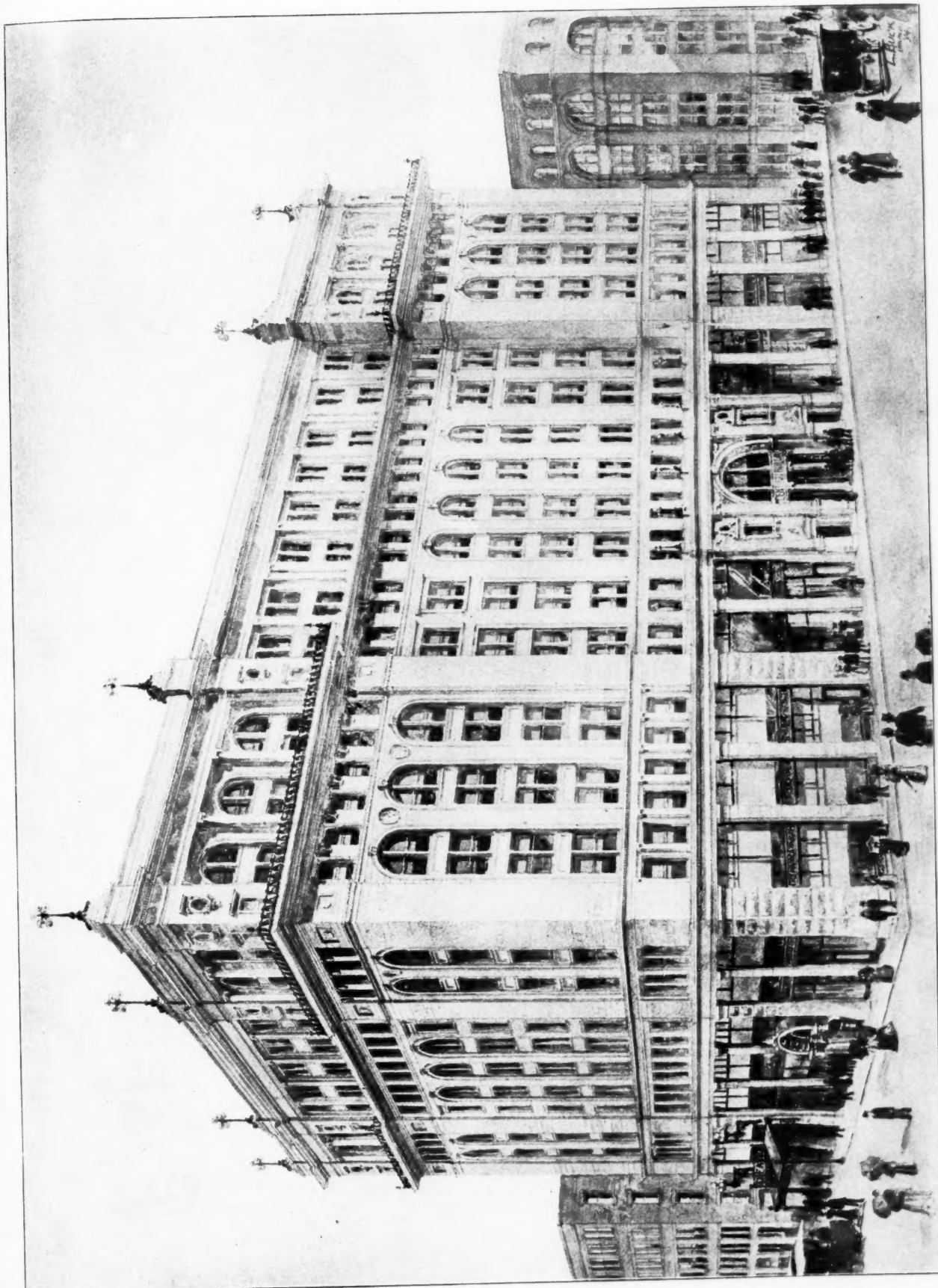




THE OLNEY ART GALLERY, CLEVELAND, OHIO.
COBURN, BARNDY & BENES, ARCHITECTS.

INLAND ARCHITECT PRESS.

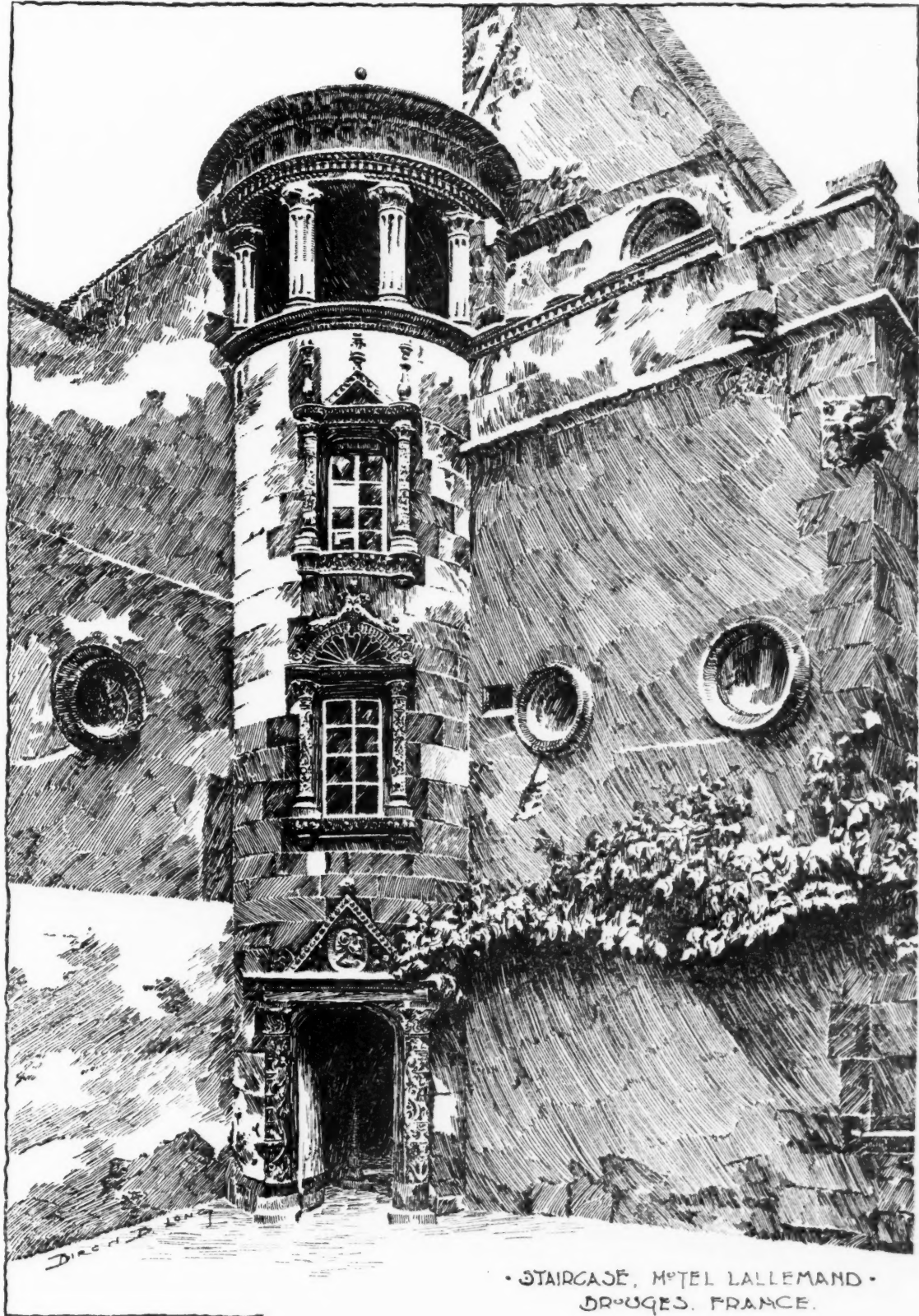
GENERAL
UNIVERSITY
12 OCT 1900



THE CENTURY BUILDING, ST. LOUIS, MISSOURI.

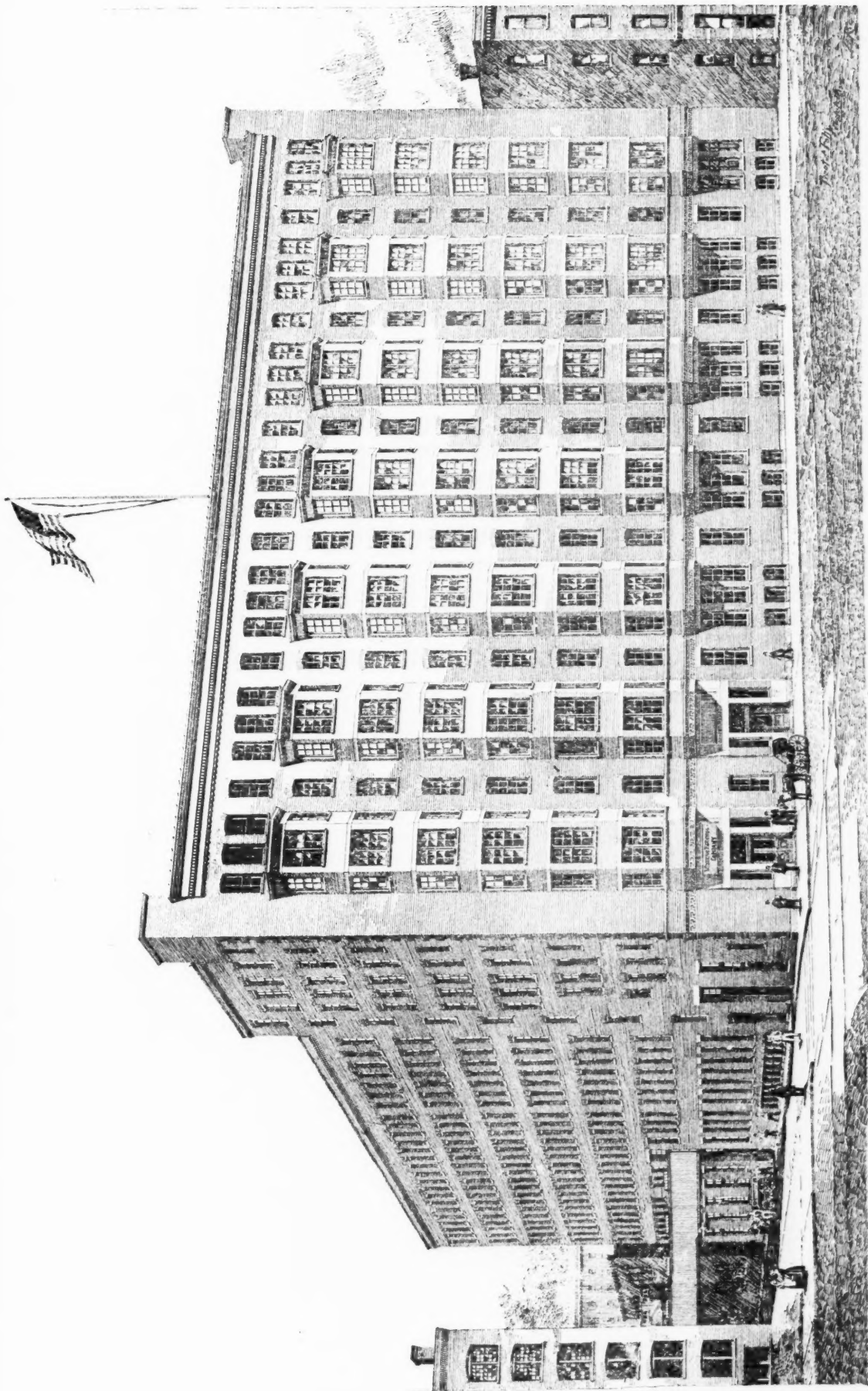
RAEDER, COFFIN & CROCKER, ARCHITECTS, CHICAGO.

GENERAL LIBRARY,
UNIV. OF MICH.
12 OCT 1895



• STAIRCASE, HOTEL LALLEMAND •
DROUGES, FRANCE.

GENERAL LIBRARY
UNIVERSITY OF ALBANY
12 OCT 1893



MANUFACTURING BUILDING FOR THE WESTERN ELECTRIC COMPANY, CHICAGO.

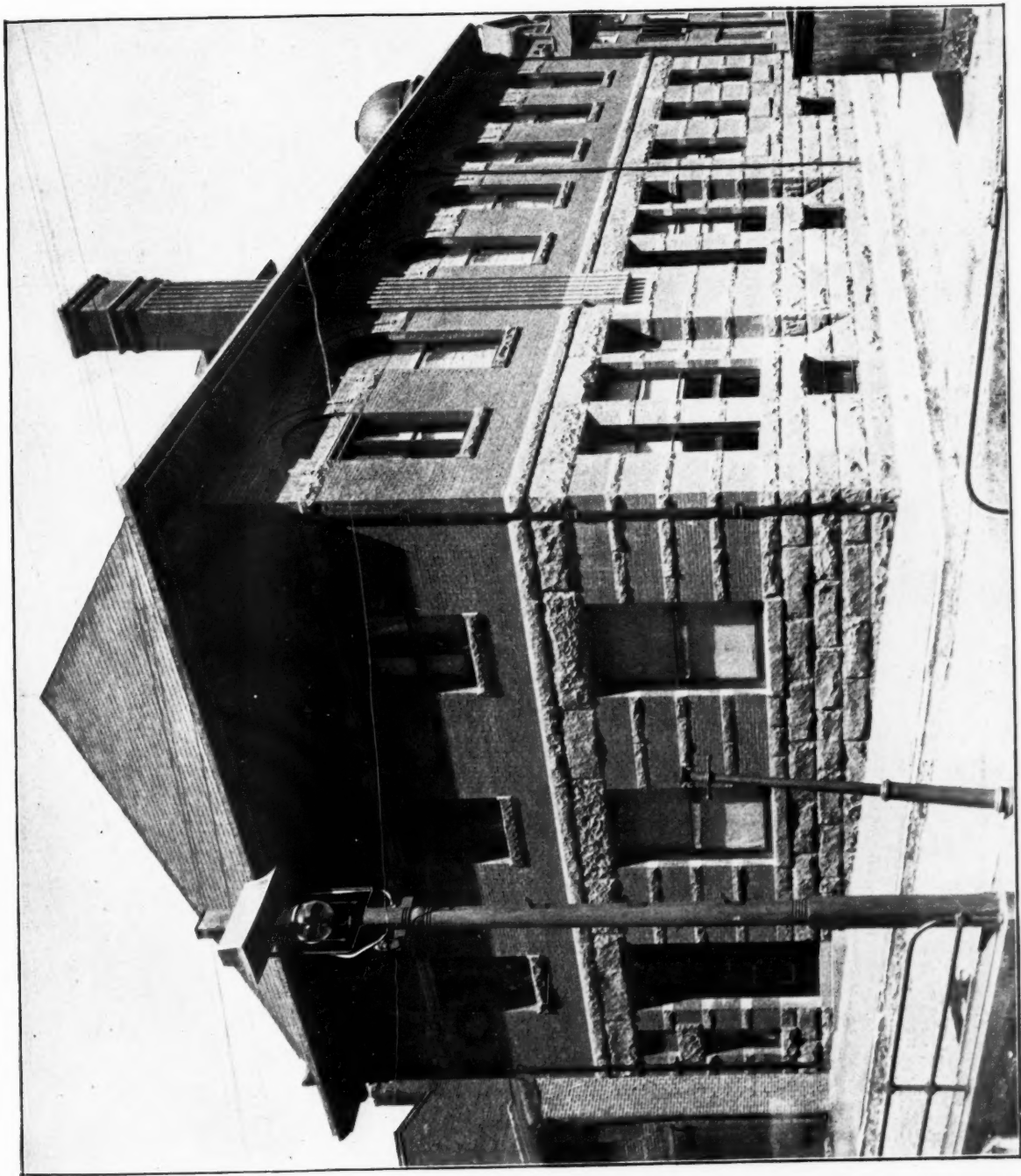
TREAT & FOLTZ, ARCHITECTS.

GENERAL LIBRARY,

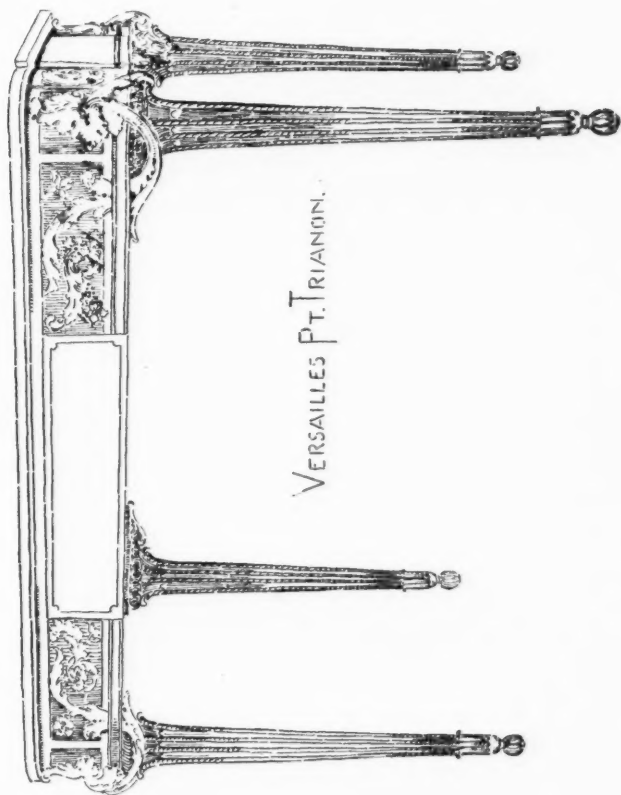
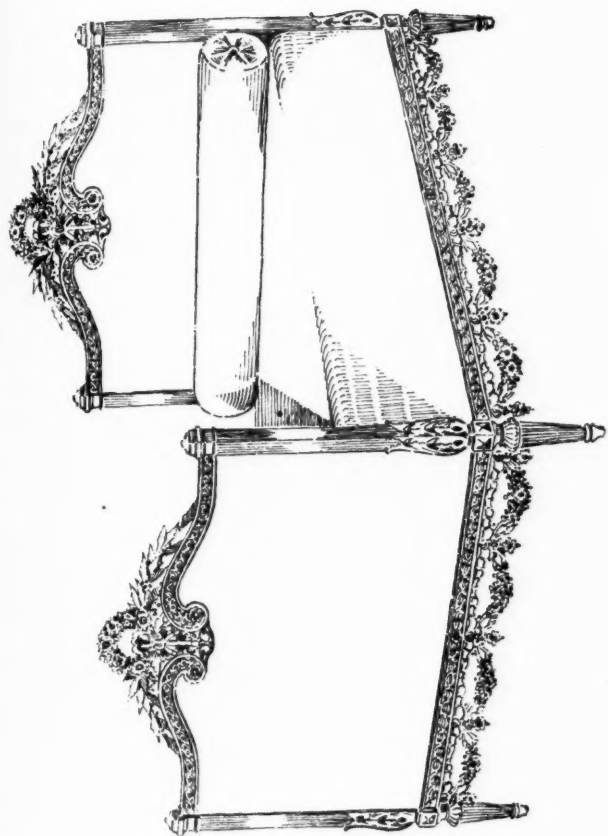
UNIV. OF MICH.

12 OCT 1895

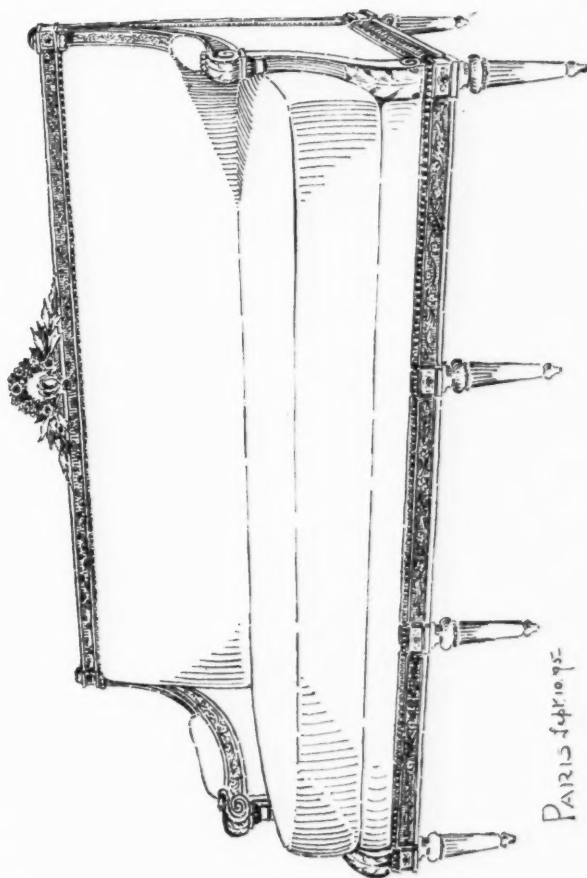
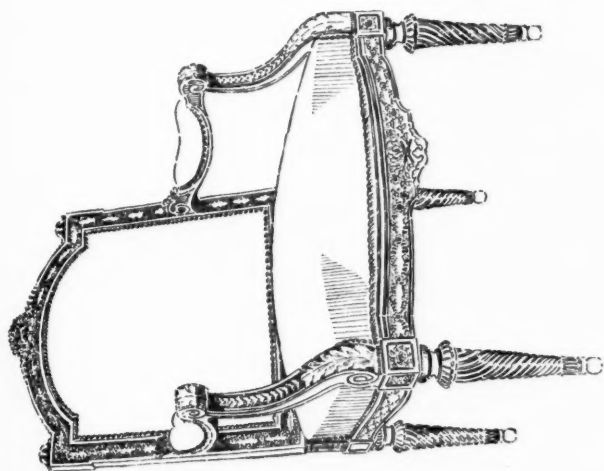
GENERAL LIBRARY,
UNIV. OF MICH.
12 OCT 1895



BUILDING FOR JOHNS HOPKINS UNIVERSITY, PHILADELPHIA, PENNSYLVANIA.



VERSAILLES P.T. RIANON.



PARIS 4410 952

EXAMPLES OF LOUIS XVI FURNITURE.
SKETCHED FROM THE ORIGINALS IN PARIS AND VERSAILLES BY STEPHEN M. WIRTS.