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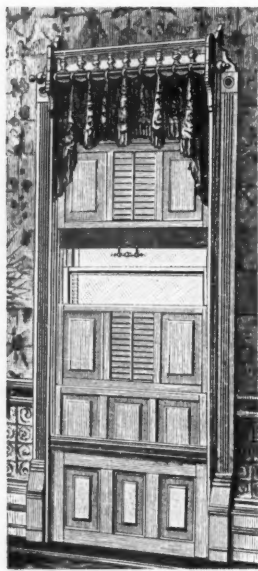
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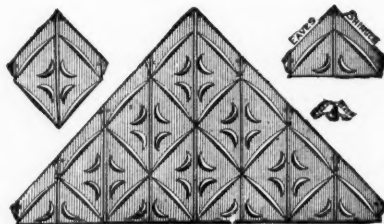
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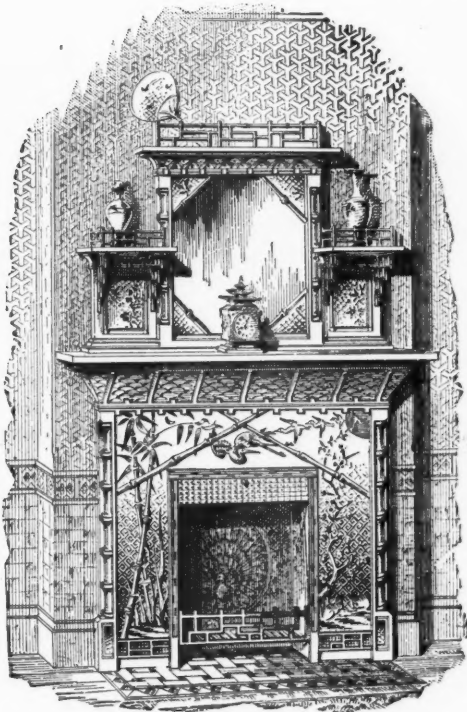
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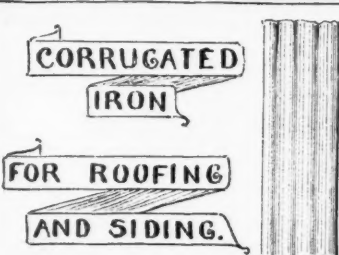
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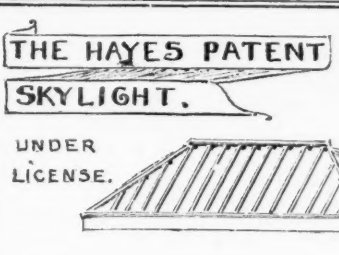
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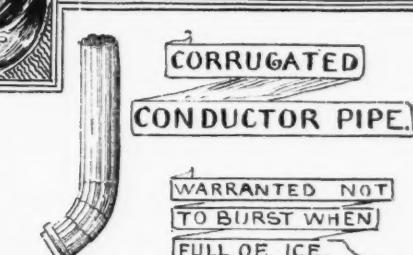
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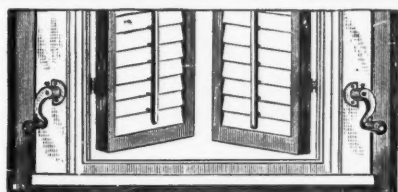
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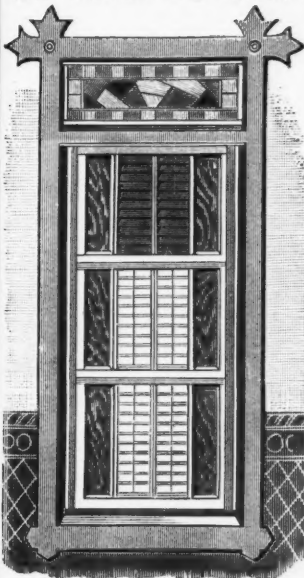
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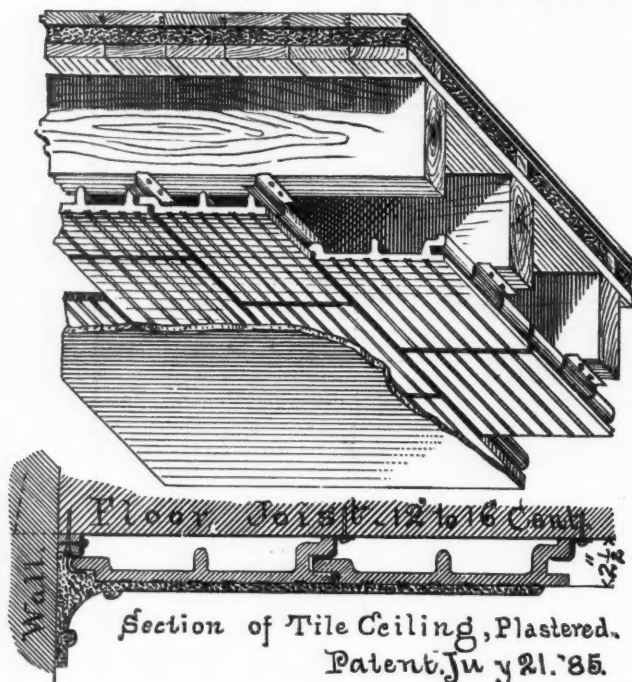
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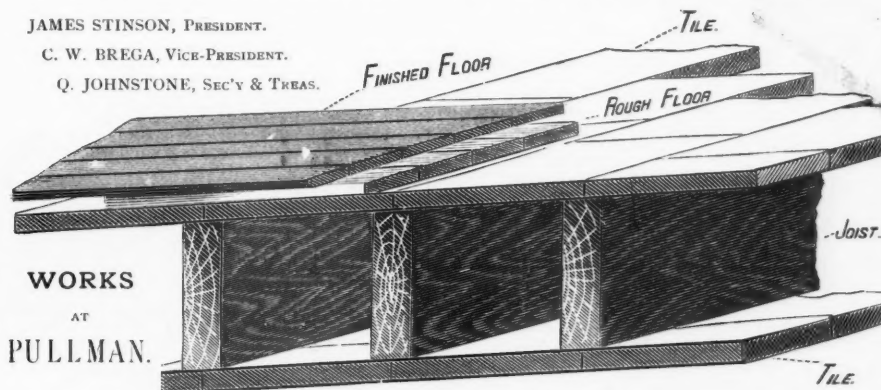
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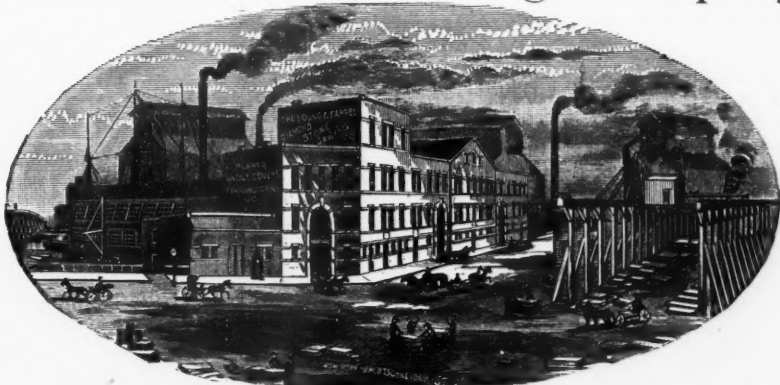
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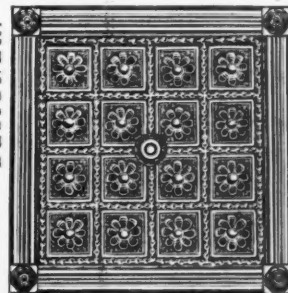
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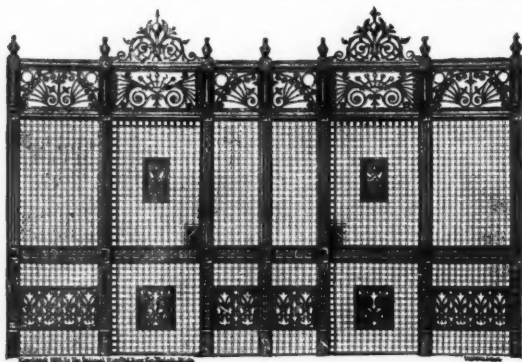
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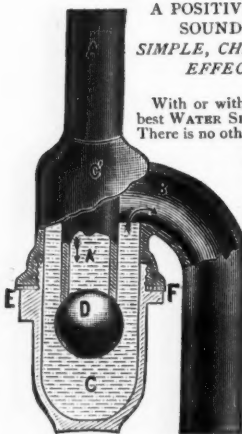
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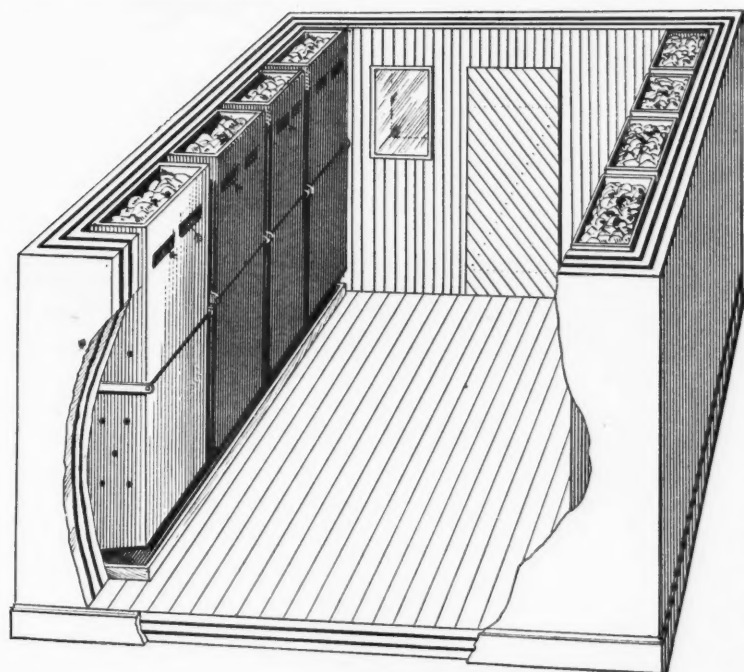
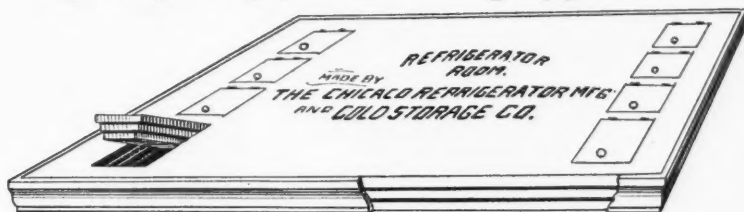
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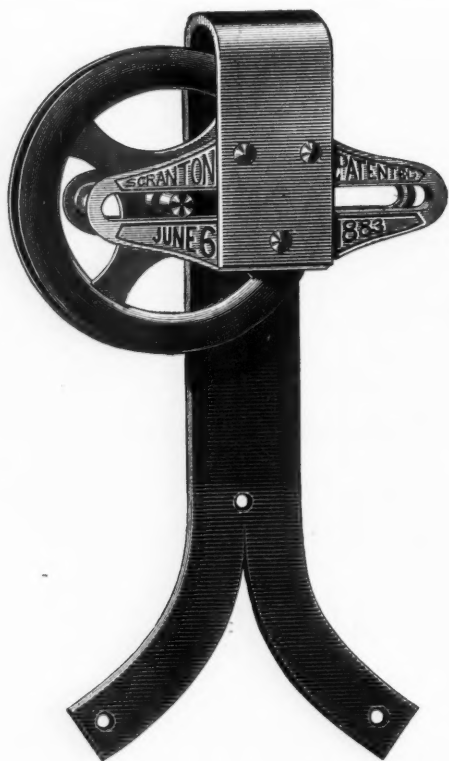
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Yours very truly,

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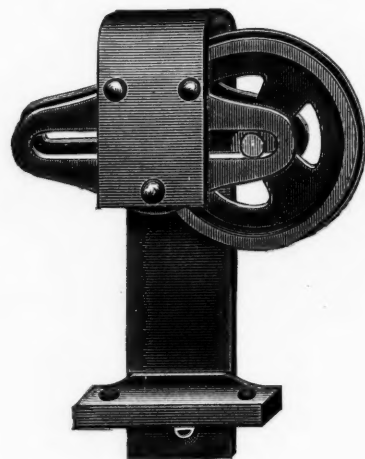
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PROPOSALS.

PROPOSALS.

The Board of State House Commissioners for the State of Kansas will receive competitive plans for the completion of the central portion of the State house at Topeka, Kansas, at their office in Capitol square, Topeka, Kansas, on the fourth day of January, 1887, at 4 o'clock p.m.; said plans to consist of first, second and mezzanine floor plans, south and east elevations and transverse and longitudinal sections, all to a scale of eight feet to an inch, size of plan to be governed by plans of basement story, already adopted, to be seen at the office of the Board, style of architecture to be in harmony with the wings already built.

The Board of State House Commissioners will employ such skilled assistants as they may deem advisable to sit with them as an awarding committee. The Board of Commissioners will pay \$3,000 for the best plans submitted and \$1,500 for the second best, the plans for which premiums are awarded will become the property of the State of Kansas, with the right to use the whole or any part or any modification thereof without further claim from the authors for compensation or employment. Carefully prepared estimates of the cost of erecting and finishing the building will be required to accompany each plan submitted.

The Board reserve the right to reject any and all plans submitted.

By order of the Board of State House Commissioners of the State of Kansas.

E. B. ALLEN, Secretary of the Board.

BOILERS.

[At Athens, Ohio.]

Bids will be received by the Trustees of the Athens Asylum for the Insane, at the office of the Superintendent of said Asylum, up to 12 o'clock noon, of Thursday, August 10, 1886, for the construction and setting complete of two steam boilers with sheet iron smoke stack, according to the plans and specifications on file in the office of Superintendent of said Asylum.

All bids must be accompanied by bond in the sum of ten per cent of the bid, that in case the work is awarded satisfactory, contract will be made within ten days thereafter for the faithful completion of the work.

The Trustees reserve the right to reject any or all bids.

By order of the Board of Trustees.

A. B. RICHARDSON, Secretary.

JOINER WORK.

[At Quincy, Ill.]

OFFICE OF THE SUPERVISING ARCHITECT,
TREASURY DEPARTMENT,
WASHINGTON, D. C., July 27, 1886.

Sealed Proposals will be received at this office until 2 p.m. on the 24th day of August, 1886, for furnishing, finishing, glazing and fixing in place all the joiner work, wood flooring, etc., required for the United States postoffice, etc., building at Quincy, Ill., in accordance with specification and drawings, copies of which and any additional information may be had on application at this office or the office of the Superintendent.

Bids must be accompanied by a certified check for \$500.

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[At Belfast, Me.]

OFFICE OF THE CUSTODIAN,
CUSTOM HOUSE, ETC.,
BELFAST, ME., July 26, 1886.

Sealed Proposals will be received at this office until 12 m. on the 31st day of August, 1886, for building complete a two-story addition to, and repairing the custom house building in this city, in accordance with drawings and specification, copies of which and any additional information may be obtained at this office.

J. M. BOARDMAN, Custodian.

SOLDIERS' AND SAILORS' MONUMENT.

[At Columbus, O.]

Designs for a soldiers', sailors' and marines' monument to be erected in Green Lawn Cemetery, at Columbus, O. (cost not to exceed nine thousand dollars), will be received at the office of the County Commissioners of Franklin county, Ohio, until 12 o'clock, noon, Wednesday, September 22, 1886.

All designs submitted shall be accompanied by full detail drawings and working plans, showing the exact manner of construction and inscriptions, and the ornaments, and also with full specifications designating all the different kinds of materials to be used, the exact method of construction, with probable cost. All drawing must be made on a scale of one-and-one-half inch to the foot, each design to be represented by perspective (or elevation) with plan, and, if necessary, sections on smaller scale. Each design to be signed by a motto, and the author's name forwarded under seal. The successful designer will be paid three per cent on contract price of monument for his designs, drawings, specifications and working plans, if let within his estimate. The lot on which the monument is to be erected is oblong, 50' by 100' in size. Board reserve the right to reject any or all designs.

By order of the Joint Board on Monument.

D. M. BEELSFORD, Secretary.

CAPITOL BUILDING.

[At Cheyenne, W. T.]

Bids for construction of capitol building in Cheyenne, Wyoming Territory, will be received at office of the Capitol Building Commission, in Cheyenne, at noon Wednesday, August 25, 1886. Plans, specifications, etc., of building are now on file at office of the commission, and at the architects' office.

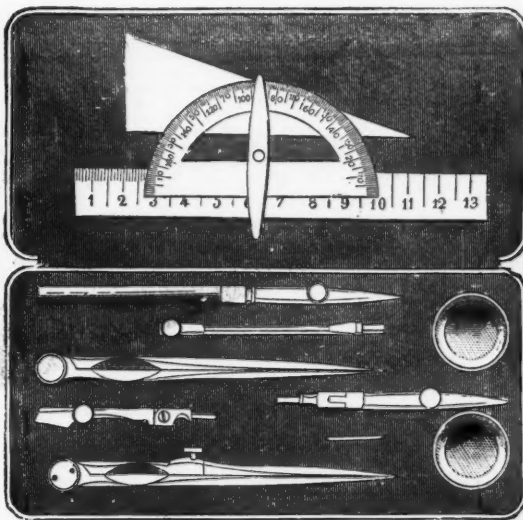
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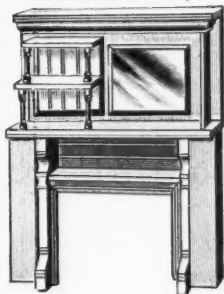
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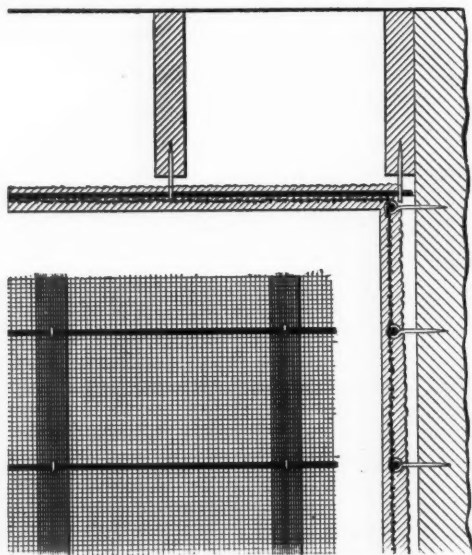
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The undersigned presents the following invention to consideration, and knows, from actual experience, that the application is as thoroughly fire-resisting as it is possible to build wood constructions. Being a practical mechanic of many years' experience, it is, with confidence in the knowledge of its efficiency, that the application is here presented for public consideration and use.

The improvement consists (see accompanying diagram), for ceilings, of a series of eye bolts, driven into the under edge of each joist, every nine inches apart, to a regularly gauged projection from the lower edge of the joist; through these eye bolts an extended iron rod, running at right angles to the joists, and firmly secured to same. Wire cloth, of a proper number of wire and size mesh, is securely wired upon the rods. A surface is thus formed for the reception of the mortar one inch or more below the lower edge of the joist. Side walls are constructed in a similar manner by driving the eye bolts into the studs or furring strips, and extending the wire cloth horizontally from end to end of wall, and the cloth secured the same as the ceiling.

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In the event of a fire within the room, it will protect the interior framework for a long time, and make it almost impossible for a fire to extend beyond the place it originated, and, holding it there, it is readily controlled and subdued.

Economy of construction is one of the valuable merits of building improvements, and the inventor of this application has attained this object. There is no reason why this method should not become a universal one, for it is within the reach of every house builder.

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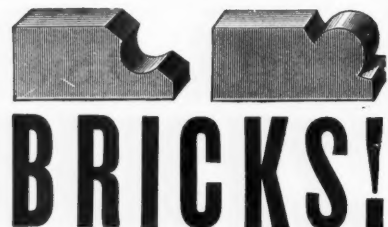


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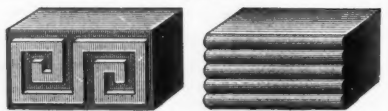
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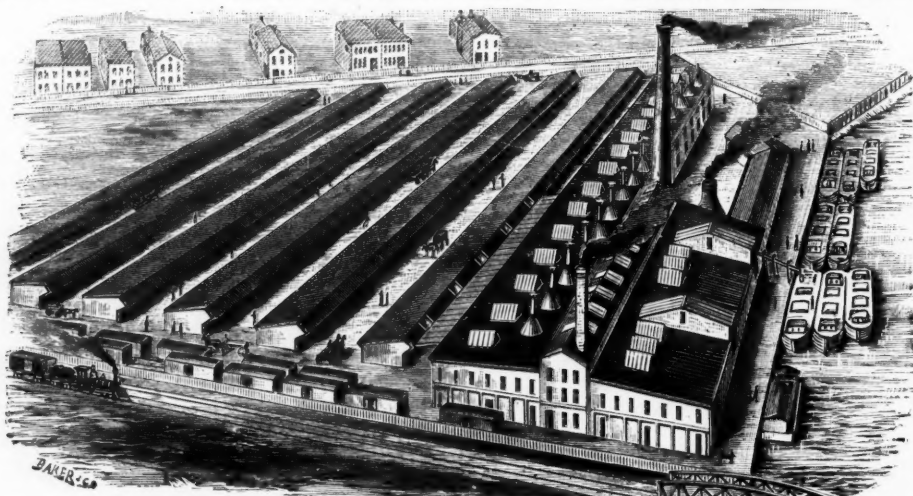
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THE successful termination of the competition for a chamber of commerce at Kansas City, of which we gave the general facts and details in our July issue, has interested the profession generally throughout the country, and those who have watched the solution of the competition problem in foreign countries will doubtless learn with satisfaction that the architects of at least one country can, while recognizing that competitions are a necessary evil, carry them through successfully with nothing but honor to those competing. True, the importance of the building is local and the sum involved insignificant, compared with that of many late European competitions, such as that for the law courts at London, but the same esprit was called for and has not been found wanting. The intelligent solution of the problem where the maximum of cost was laid down, and the best architecture the country can produce offered, without exceeding it, is certainly a work of the most careful training in the practical as well as in the æsthetical province of architectural work. We have sought, in showing the accepted design, as well as those highest adjudicated upon by the committee, to present with them a history of the competition, giving the plan upon which the competition was arranged, and have collected as far as possible all the facts in relation thereto.

THE instructions for the competition were drawn up in the spirit of the code adopted by the Western Association of Architects at their last meeting and were more fully outlined from a tract upon competitions prepared some ten years ago by Prof. W. R. Ware for the American Institute. The scheme for the management of the competition, as may be seen, differs from the code in several important particulars, mainly that of the appointing of expert judges. While in the former but one expert is employed, the code provides for three; one appointed by the building committee, one by the competing architects, and one by these two, each one of the jury to be an expert architect, in good standing, and not from the town where the building is to be erected. This, we think, will be found the better way, for while the judgment of the expert in the case under consideration has been universally praised and not a voice has been raised in dissent, this might not always be the case; with all the safeguards which might be thrown around the competing designs, there might be found some fancied ground for the charge of favoritism. But we are not disposed to criticize, for the terms upon which the designs were made, with the creditable result, places this so far in advance of and above many of the competitions, so-called, of the past, which have brought not only enormous expense without adequate return to those for whom buildings have been erected, but disrepute upon the architects, that we look upon it as the beginning of an architectural era when the costly structures called "public" will be the architectural glory of, instead of a by-word and disgrace to the country.

WHILE Professor Ware, in his report, says nothing definite in regard to the general architectural style followed in a number of the designs, he mentions that "sixteen were designed in some variety of Roman or Renaissance architecture, nine with a tolerably strict and nine with a somewhat free use of Romanesque or round-arched mediæval motives, and not a single one in the pointed Gothic style, either modern or mediæval, which twenty years ago, or even ten years ago,

was almost universal." This alone will show the rapid advancement we are making toward an American style of architecture, which, beautified and modernized by Richardson, and outlined in most of the recent work of our best architects, may prove ephemeral as did the Gothic, but in all likelihood, and we feel that it is safe to predict, will be the foundation, and as far as adaptation will serve, the main feature of our architectural creations of the future. Our main object in thus fully presenting this competition, a work that will occupy one and perhaps two future numbers to complete illustratively, is that the profession may see the practical result of a competition upon a professional code, and forsake and absolutely refuse to draw a line in a competition that has not a carefully prepared code like that of the Western Association for its government.

THE Exchange Building Committee of Kansas City adopted this method through well founded motives of economy and utility, realizing that the best building the architects of America could produce would cost no more than if the plans were obtained for nothing and the architect secured his pay through margins in the way of "loans" from the contractors, or in additions and extras, an experience that few cities, counties or states have not met with to their cost. Knowing what public sentiment has been and is, the low estimate put upon architectural services, and the refusal of the average business man to recognize this when he would not think of prosecuting a case in court, or go through a dangerous illness without the services of a skilled lawyer or physician, we cannot give too much credit to the president of the Exchange Association and his co-workers. They have not only done wisely for the body they represent, but have placed their city before the country in the light of intelligence and enterprise in a manner that should excite the envy and imitation of those both east and west whose architectural beauty will be of the future, that of the past being marked by the one word regret. We of the West should not draw invidious comparisons, but eastern journals have pointed to the vast dissimilarity between the action of these gentlemen and a like committee in charge of an important building project in Boston. We would only point to the general history of competitions in America, and leave the weight of argument for our practical exposition of that of the Kansas City Exchange Building, to prove to the profession and public alike the wisdom of a general adoption of the code of the Western Association wherever a competition is called for, not forgetting that it is largely due to the active association movement which has called the architects of the nation and of the states into closer fellowship and united action that this competition with its satisfactory results was brought about.

AS it is expected that the convention of the Western Association of Architects, which will convene at Chicago upon the third Wednesday of November next, will be attended by the majority of those practicing architecture in the United States, it is not too soon for the different committees to begin active preparation to complete the work placed in their charge. Particularly is this true in regard to those charged with the work of collecting drawings for an architectural exhibit in connection with the convention. This committee consists of those who were appointed to organize state associations, and they should at once set about the work consigned to them. The best way, perhaps, is to notify architects in regard to the matter, and for them to send their drawings direct to the secretary of the Western Association, Mr. John W. Root, Montauk block, Chicago, who should

have charge of all drawings admitted to the exhibit. This showing of architectural work should be as comprehensive as the country the association represents.

WHILE American architects are wrestling with the competition problem, it is always interesting to observe the experiences of foreign architects with the same questions, and the expedients to which they resort in dealing with it. It is well known that a grand competition is announced for the design of the proposed new façade to the cathedral of Milan, open to all the world. The following are the conditions of this great contest: The plans must be received between the 1st and 15th of August, 1887. The jury will consist of fifteen members, as follows: one commissioner, one priest to be selected by the archbishop of Milan, and four architects to be named by the Academy of Fine Arts of Milan, of whom one is to be an Italian architect, one a German, one French, and one English; then the city of Milan will appoint two members, of whom one is to be an architect and one an artist, either a painter or a sculptor; the Monument Commission of Milan will also appoint an architect on the jury; the Milan College of Architects and Engineers will select an architect or an engineer; the Lombard Institute of Science and Letters will be represented by one expert, and the competitors themselves will elect the remaining four jurymen, two of whom must be architects, one a painter, and one a sculptor. There would appear to be no reason for doubt as to the expertness of this proposed jury. There will be seven grand prizes in the Milan competition; one first prize of 40,000 francs, three second prizes of 5,000 francs each, and three third premiums of 3,000 francs each. Beside these will be an indefinite number of other prizes of 2,000 francs each to be awarded at the discretion of the jury. A charge is made of five francs for the diagram of the present condition of the cathedral, to which the new front is to be added. This may be obtained on application to Ulrich Hoepli, Libraire de la Com Galleria de Cristoforis, 59-63, Milan, Italy. For further information parties can address "L'Administration de l'oeuvre de la cathedrale de Milan."

THROUGH the Belgian architectural journal, *L'Emulation*, intelligence is received of the recent death of an eminent Belgian architect of wide reputation abroad, though comparatively little known on this continent, M. Eugene Carpentier, born at Courtrai in 1819, a pupil at the Academy of Brussels, where at the age of twenty-six he secured the highest prize for proficiency in architecture. He afterward entered the office of M. Dumont, architect, and under his direction superintended the restoration of the church of St. Hubert. In 1861 he was established in business for himself at Belœil and quickly rose to fame through his wonderful activity and his remarkable successes at the various expositions of the time, gaining in rapid succession a medal at the Brussels exposition of 1861, a third prize at the Paris salon in 1867, a medal at the London exposition in 1871, another medal at the Brussels exposition in 1872, yet another medal at the Vienna exposition of 1873, and still another at the grand Paris exposition of 1878. For sixteen years he was also a member of the commission for the preservation of architectural monuments. Beside his exposition work, M. Carpentier had an extensive practice of a high order, being intrusted with the restoration or construction of numerous churches and castles, beside schools, hospitals, and other important work. In church work particularly his originality and success have given an impetus to many imitators, and resulted in the formation of what might almost be termed a

new school of architecture. M. Carpentier was personally of a retiring disposition, unambitious of notoriety. He had numerous pupils, who, with those architects who best knew him or his works, deeply lament his loss.

THE Conservators' League of America, is the name of a new society, which is probably destined to play an important part in the future of our industrial organizations. Formed but a few months ago, its ramifications already extend through several states where branch societies are being organized and disseminating the principles of the organization. As all great movements are started by some need to supply, or usually some wrong to correct, this has grown out of the labor troubles, men of wisdom with a desire for the future good of their fellows having resolved to place in active operation an organization which has for its object the practical realization of the scheme of coöperation between capital and labor. Though the society in question has taken in a manner the form of a secret body, it is only such as far as is necessary for perfect and uninterrupted work. Its membership is drawn from all conditions of men, the only requisite being that the applicant for admission be intelligent and a lover of law and order. The foundation of the society can perhaps be best told by Article I of its constitution, which reads:

The purposes of the Conservators' League of America are: To protect the legitimate business of the country against all unlawful and injurious interference, and to promote a better understanding of the true relations existing between employer and employes, maintaining the rights of each, and adjusting their differences.

The recent so-called labor troubles have largely arisen from a vital misapprehension of the true relations existing between all classes of business, and to counteract these injurious results and to protect all business interests and thus promote the highest good of all, is the mission of this society.

THIS movement was set on foot by Judge Mark Bangs, who has called to his aid an advisory board, composed of leading business men of Chicago, such as Morris Selz, N. S. Bouton, Wm. E. Frost, Chas. H. Morse, J. M. W. Jones and J. Irving Pierce, who, through the supreme secretary, W. H. Van Ornum, of Chicago, are vigorously pushing the formation of councils throughout the cities of the country. We look upon this movement as not only one to which every citizen deserving of the name should ally himself, but lend his earnest support. While we have not such a work to perform as the Union League during the late war, the future good of this great country seems to demand some such organized effort toward the protection and preservation of our trade, and in this citizens of every section have a vital interest. There can be no class favoritism, no fostering of the interests of one class to the prejudice of those of another, but all working together, holding the great producing capacity of the country in a solid and unshaken mass. To no other class does this call apply more closely than to those connected with the building trades and we, in the interest of our country and in our desire for the permanence of their activity call upon our readers everywhere to give this organization and its purposes their most earnest consideration and support.

THE conversion of the Exposition Building at Milwaukee into an auditorium for the Saengerfest which has recently been executed in that city, is quite interesting to the profession in demonstrating that a hall built for entirely different purposes, and found by experience to be unfit for successful use as an auditorium, can be so transformed as to make it possible for

every one of an audience of ten thousand people to hear and enjoy not only choral and orchestral music, but the voices of soloists even in pianissimo passages. We shall in a future issue publish, by the permission of the architects, Messrs. Adler & Sullivan, of Chicago, plans and sections illustrating this work, as well as the similar work executed in the Exposition Building of Chicago, for the musical festivals of 1882 and 1884, the National Republican and Democratic conventions of 1884, and the opera festival of 1885.

BUILDERS and traders' exchanges are being organized in all large cities, those notable ones in Chicago, Cincinnati, New York, and Boston serving as a model and incentive. The latest to form are those located at Indianapolis, Indiana, and Dayton, Ohio. The exchange at the former city starts with about 150 members, comprising all the leading manufacturers and contractors. At the initiatory meeting, June 30, the officers elected were J. A. Buchanan, president; G. O. Eldridge, treasurer, and Wm. P. Jungdclaus, secretary. The prime objects of this association, which are similar to those of all others formed, are thus expressed by their constitution.

The collection and dissemination of statistics and information of value to any or all of the several trades engaged in the building business; the mutual improvement and advancement of all artisans and tradesmen in their several vocations, connected with said business; the peaceable settlement of matters in dispute between contractors, sub-contractors and employers; the advantage of a general place of meeting for the transaction of business; the establishment and enforcement of such lawful rules and methods of procedure as may be deemed for the best interests of the Association and its various members; and to do any and all things falling within the general scope of the business and procedures of such Associations.

The exchange at Dayton has a membership of 146, and is in a flourishing condition. John Rouser is president, Chas. W. Bell, secretary. No stronger influence for the good of the building trades and the protection of the public against all kinds of dishonest and unskillful work can be formed than that outlined by the constitutions of these exchanges. Like the association of architects, they comprise and are governed by the best and most reliable members, and bring into their work that close and honest competition which not only stimulates trade but gives to the public the best at the lowest figure.

THE constant attention and wise liberality with which the French people and government provide for thorough training of the young in artistic and industrial employments is a constant source of remark with intelligent foreigners interested in such matters, coupled with a never ending wonder that other nations are so slow to copy the example so long and successfully held before them. To take one example among many, a M. Mayer, of the department of the Seine, has proposed to donate to the state a sum which should yield an annual rental of 250 francs to be employed in providing prizes for those pupils of the department schools who excel in designing for the decoration of porcelain ware. The government after mature consideration has accepted this endowment and will hereafter institute annual competitions open to pupils of the national school of decorative arts, the national school of design for girls, and the municipal drawing schools of the department of the Seine. The decisions will be made and the prizes awarded by the minister of public instruction and of the fine arts. Thus these children of a wise and far-sighted government are not only born, surrounded on every side by art of the greatest variety and value, with museums, libraries, paintings and statuary, but their minds are carefully formed, and their tastes cultivated by painstaking instruction, while prizes of honor and of intrinsic value annually reward and stimulate the diligent. We are indebted to the *Gazette des Architectes* for the facts above stated.

The Exchange Building Association of Kansas City.

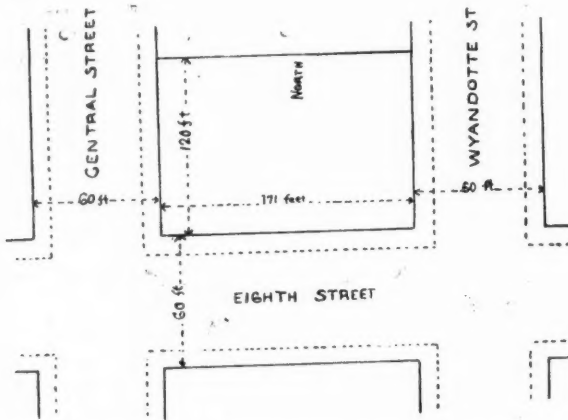
COMPETITION.

THE Exchange Building Association of Kansas City, Missouri, are proposing presently to erect a building for themselves and for other tenants, at an expense not to exceed \$400,000, and have appointed a building committee with full powers to select an architect to carry on the work. This committee has invited Messrs. Burnham & Root, of Chicago, Geo. B. Post, of New York, and Peabody & Stearns, of Boston, to each prepare a sketch or preliminary design for the proposed structure, for which they will be paid the sum of \$500 each. Notice has also been given, through the public prints, that the committee will receive and entertain designs by other architects not so invited.

All designs must be made in conformity with the following instructions:

INSTRUCTIONS.

The land belonging to the Exchange Building Association is, as appears from the accompanying diagram, a rectangular lot, bounded on the north by a party line, and having on the east a front of 120 feet upon Wyandotte street, a similar frontage on Central street to the west, and on the south a front of 171 feet upon Eighth street. Wyandotte street is about 7 feet lower than Central street, and descends about 4 feet to the north in the width of the lot. All these streets are 60 feet wide, including the sidewalks, and are to be considered as equally important, one with another.



This property is near the business center of the town, and the buildings in the neighborhood will probably range from 50 to 80 feet in height. The prevailing winds in summer are from the South, and in winter from the North, so that great extremes of temperature are experienced. In all seasons the southern exposure is the most desirable.

The soil is a thick bed of clay, lying upon limestone. There is no difficulty in getting a good foundation and good drainage. The water supply is abundant, and in respect to labor and materials, the facilities for executing good work do not differ greatly from those in other cities.

The external walls of the building are to be of face-brick and cut-stone (either sandstone or limestone), or terra-cotta. The entire structure, including the roof, is to be made as safe against fire as possible, either by the use of brick and iron, or concrete, or by means of some "slow-burning" construction, as may be determined hereafter by the committee in consultation with the architect.

The building is to be five stories in height, besides the basement, and is to have an entrance from each of the three streets, the principal entrance, if any, being upon Eighth street.

The first story above the basement will contain two banks. On the same story and in the basement, will be accommodations for railroad offices, etc. A restaurant with kitchen, etc., will be put either here or in the top story. The rest of the building except what is occupied by the Board of Trade will be taken up with small business offices. In these the windows must have square heads, and must run as near the ceiling as possible.

The banks at present occupy:

- A banking-room about 22 feet by 55 feet.
- A directors' room about 16 feet by 22 feet.
- A president's room about 10 feet by 14 feet.
- A cashier's room about 8 feet by 9 feet.

More ample accommodation than this is desired, together with a dressing-room and coatroom for clerks, etc.

The banking-room must be well lighted behind the counters, and have safes two stories in height, about 8 feet by 15 feet inside, with doors at the end.

The Exchange Building Association require:

- A large hall about 60 feet by 100 feet.
- A directors' room about 20 feet by 20 feet.
- A president's room about 10 feet by 15 feet.
- An inspector's room about 15 feet by 20 feet.
- A small hall about 30 feet by 60 feet.
- A reading-room.
- A secretary's room.
- A clerk's room.
- A telegraph office opening into the large hall.

If otherwise desirable the large hall may occupy the fourth and fifth stories, the other rooms of the Board of Trade being on the fourth story.

The rest of the building is to consist of large and small offices ranging in size from about 15 feet by 20 feet to about 15 feet by 10 feet and 10 feet high, in suites of various sizes, and so arranged that they can be shut off or thrown together to suit tenants.

There are to be four elevators placed near together running from the basement to the roof, the wells running up above the roof.

The building is to be heated by steam, and proper space must be provided for boilers, coal, etc. Besides proper provision for ventilating the halls, passages, etc., all the principal offices at least must be provided with open grates.

Ample provision must be made for public and private water closets, sinks, lavatories, coatrooms, and other closets, including bedrooms and closets for janitors and watchmen. No provision is needed for a janitor's family.

It is understood that tenants will furnish portable safes for daily use, and the floors and walls will be made strong enough to carry them. But besides this, many tenants will require considerable storage room for valuable papers, and large fireproof vaults must be provided. These may be grouped in each story, forming a continuous stack, or may be accommodated in the basement, like a "safe deposit vault," as may prove most expedient. In this case accommodation must be provided for outside depositors, with proper entrances, offices, etc.

The following drawings, and these only, will be furnished by each competitor. They will be accompanied by a brief memorandum, copied with a type-writing machine, explaining any points in the design not obvious from an inspection of the drawings:

- Plans of the different stories, and of the basement.
- Three elevations.
- Two sections.
- A perspective.

These will all be drawn to a uniform scale of 1-16 of an inch to the foot, and finished in line with India ink with the drawing-pen. They are to be back-lined, and no shadows are to be cast. There is to be no brush-work except in blacking in the windows and the sections of the walls and floors. The lettering and figuring is to be plain and simple, like ordinary printing type, and is to be confined to the names and dimensions of the rooms, written in the middle of each, without explanatory comments, which are to be put by themselves, as has been said in a separate memorandum.

If the plans of two stories are identical, one may be omitted; and if two of the stories are exactly symmetrical in plan, half only of either need be shown.

The perspective also is to be drawn in line only, without figures, background or foreground, and without shading, even in the windows; the building to be set at an angle of 45° with the plane of the picture—the vanishing points being set thirty inches apart, and the nearest point of the building, which is to be the southeast corner, set twelve inches from the right-hand vanishing point. The horizon is to be taken at the level of the principal floor. The scale of the perspective is to be one-third as large again as that of the elevations, on the nearest corner, or 1-12 of an inch to the foot.

These drawings are to be made each upon a half sheet of imperial paper (or upon a sheet of tracing paper, not tracing cloth, mounted upon imperial paper), the paper being cut down to the dimensions of 13 inches by 20 inches, and surrounded with a single line for a border. Each drawing, and also the accompanying memorandum, is to be distinguished by a motto or cipher, and no handwriting, of any sort, is to be put upon either. A sealed envelope bearing the same cipher or motto, is to contain the name and address of the writer, and he may inclose with it any information in regard to his training, experience or present professional position, and his qualifications for carrying out the designs necessary to the completion of the work, or for conducting the work itself, to a conclusion, or for both, which he may desire to bring to the notice of the committee. The architects specially invited by the committee will please distinguish their designs by putting a circle an inch or two in diameter upon the back of the drawings. Before making a final choice the committee and their professional adviser will open the envelopes containing the names of the authors of the most approved designs, in order that, other things having been first considered, purely business considerations may have their proper weight.

These drawings are not to be framed, glazed, or even mounted on cardboard, but are to be sent flat, in a portfolio, expressage paid, on or before June 15, 1886, to Professor William R. Ware, Columbia College, New York, N. Y., whom the Exchange Building Association have appointed to act with the committee as their professional adviser. He will employ a competent person to throw out from consideration all drawings or sets of drawings not made in conformity with these printed instructions. The remainder he will examine and will select those he finds to be the best among them, at least three in number, which he will hand over to the committee with his comments and recommendation.

The committee, in consultation with their professional adviser, will assume the entire labor, responsibility and expense of making estimates for the work on the basis of the designs selected by them, employing a competent surveyor to that end.

The committee will forthwith appoint one of the selected competitors as architect of the building, if they find that, in their judgment and that of their adviser they are warranted in doing so. But if, as may happen, they find themselves unable to choose, upon the evidence before them, between two or more of these candidates, they will invite the competitors among whom their choice then lies, to present, under the instructions of the committee, such further explanations as the nature of the questions at issue may require, and, if they find it necessary to do so, will institute a second competition among them, for which a sufficient time will be allowed. The committee will then, after consultation with their professional adviser, select one of the competitors so invited, to be the architect of the building, and will execute an agreement with him for the customary professional compensation, for such services, as declared by the Western Architects' Association, and by the American Institute of Architects.

The committee reserve the right, in case their choice falls upon an architect who was not in the first instance invited to enter this competition, and whose experience and professional position do not, in their judgment, warrant them in putting the practical conduct of the work into his hands or upon one who, by reason of distance, does not wish to undertake it, to associate with him some experienced person, to be nominated by him, upon whose competency in this respect they can rely, paying to each the customary fees for his share of the work.

Each of the architects invited to take part in this second competition, should such a competition be instituted, will receive from the committee a sum not exceeding \$400 as compensation in full for these additional services, whether he is or is not among the number of those who have been specially invited by the committee to take part in the original competition. But unsuccessful competitors not so invited will not receive any remuneration.

In the case of the successful competitor, these payments will be considered as payments on account of his commissions as architect of the building.

All drawings will be returned to the competitors as soon as the committee has made its selection; and they will not be shown to the other competitors, nor to the public, without the consent of their several authors, previously obtained in writing. Nor shall anything shown in any of the rejected designs, or otherwise suggested by the unsuccessful competitors, which is original as to this competition, be adopted and made use of in the building, without the consent of its author and proper remuneration being made him; the amount thereof to be agreed upon between him and the committee, and in case of disagreement to be referred to their professional adviser.

Any information which the committee, or any member of the committee, or their professional adviser may find proper to communicate to any of the competitors, in answer to questions or suggestions, will be made in print, and will be simultaneously communicated to all the rest. Such questions or suggestions must be made before the 15th of May, and should be addressed to one of the undersigned, who will communicate with each other before replying.

The final action of the committee, and the report to them of their professional adviser, will be communicated to all the competitors.

EDWARD H. ALLEN,
President of the Exchange Building Association,
Kansas City, Missouri.
WILLIAM R. WARE,
School of Mines, Columbia College,
New York, N. Y.

BULLETIN NO. 1.

Mr. George B. Post, of New York; Messrs. Peabody & Stearns, of St. Louis, and Messrs. Burnham & Root, Chicago, have accepted the special invitation of the committee; Mr. H. H. Richardson, of Brookline, and Mr. A. B. Cross, of Kansas City, have declined.

The committee have decided not to issue any further special invitations.

They have also voted to rescind the provision of their instructions which requires the specially invited competitors to distinguish their drawings by marking a circle upon them, desiring to make no discrimination between them and the others.

April 24, 1886.

E. H. ALLEN,
W. R. WARE.

BULLETIN NO. 2.

Owing to recent changes in the grades, the southwest corner of the lot is now nine feet higher than the southeast corner, instead of seven feet, as stated in the *Instructions*. The northwest corner is six feet lower than the southwest corner, and the northeast corner four feet lower than on the southeast, as before.

The sidewalks are twelve feet wide. There are no restrictions in regard to occupying space under the sidewalks, and no city regulations of any sort which it concerns the competitors to know.

It is left to the judgment of the competitors whether to bring the building up to the line of the sidewalks, or to set in back; and whether to put the heating apparatus in the basement itself, or in a sub-basement.

The small hall is for general purposes.

The telegraph offices are to be outside the large hall, but opening into it.

It is the function of the inspector to inspect grain; his office will be one of the board's offices, and should be near the secretary's office.

The Exchange Building Association, and the Board of Trade, mentioned in the *Instructions*, are the same thing.

By *back-lining* is meant the same thing as *black-lining*, or *shade-lining*.

No further bulletins will be issued.

May 25, 1886.

EDWARD H. ALLEN,
WILLIAM R. WARE.

EXPERT AND COMMITTEE REPORTS.

NOTE.

In view of a generally expressed desire on the part both of architects and of others, to see the drawings sent in in competition for the Kansas City Exchange, I shall be glad to receive from the several competitors permission to send them presently to Kansas City, to the care of the Kansas City Society of Architects, and later in the season to the New York Chapter of the American Institute of Architects, and elsewhere, if requested, at my discretion. But this would probably involve keeping them in hand until the middle or end of October.

If the several competitors will kindly send me a line giving or withholding this permission, I will either return the drawings at once, or retain them for this purpose, as I may in each instance be instructed. In the latter case I will take the liberty of adding to the motto or device by which each design is distinguished, the name of its author.

Except for the delay caused by this suggestion the drawings would have been returned a week ago.

A number of the competitors have done me the honor to ask me to give them my opinion of their work in some detail, and to explain in what respects it was not acceptable to the committee and myself. I hope they will not think it discourteous if I take this method of replying,

or if I say, that as it is impossible for me, with the time at my command, to comply with all these invitations, I beg them kindly to allow me to decline them all.

New York, July 20, 1886.

WILLIAM R. WARE.

COMMITTEE'S REPORT.

In fulfillment of the promise made in the printed *Instructions* issued to the competitors, we present for their information this account of the results of the Competition.

Fifty-three designs for the Exchange Building were sent in on the 15th of June. Of these, ten admitted light and air by means of several small areas or wells, twenty-five mainly by a large area at the back, six by a large area at the front, the building occupying three sides of an open court, and nine by a large court in the middle of the building which in two of the designs was covered by a skylight.

The large hall for the Board of Trade occupied in one design the basement, the first, second and third floors; in three, the first, second and third floors; in eighteen, the second and third floors; in seven the second, third and fourth floors; in two, the second, third, fourth and fifth floors; in one, the third and fourth floors; in twenty, the fourth and fifth floors, and in one, the fifth floor only.

In twenty-one, the large hall was in the middle of the front; in eighteen, at the end, upon a side street; in eight, it faced the front and side street; three were upon large courts in the rear; one upon the courtyard in the middle of the front, one extended the whole length of the front, and one was in the middle of the rear.

In thirty-one of these designs the safes were distributed in stacks throughout the building; in eleven, they were concentrated in the basement; in ten, they were shown in the basement and first floor, and in one, on the first floor.

The restaurant, in thirty-two designs, was placed in the basement; in eighteen, at the top of the building, and in three, upon the first floor.

In respect to style and external treatment sixteen were designed in some variety of Roman or Renaissance architecture, nine with a tolerably strict, and nine with a somewhat free use of Romanesque or round-arched mediæval motives, and not a single one in the pointed Gothic style, either modern or mediæval which, twenty years ago, or even ten years ago, was almost universal. There were seventeen designs, two or three of great merit, in which it was difficult to detect any special historical influence.

On opening the seals, it appeared that in two cases two sets of drawings came from the same hands, in another three, and in another four. The result serves, however, rather to commend the course of the successful competitors, who made numerous duplicate designs for their own use, as a means of study, submitting to the Committee only the one they believed to be the best.

The provisions of the printed instructions proved to have been carefully complied with in every case, except that in one design the building had windows on the north side, where the plan furnished showed a party wall, and one design showed a building of eight or nine stories, disguised as mezzanines, instead of five or six. These were accordingly thrown out of consideration at the start, as were also some drawings of details which accompanied another of the designs.

A list was then made of fourteen, which proved to have the best plans, and another of twenty-one, which had the most acceptable perspectives. Six designs were found upon both lists. To these six ten more were added from those of such marked excellence, in either respect as to deserve further consideration. These sixteen drawings were then critically compared with reference to the provisions made for the general convenience of the public and of the Board of Trade, for lighting and natural ventilation, for office room and rental, and for a suitable architectural character and expression, and the memoranda that accompanied them carefully read. They were then arranged in series under each of these heads, and those that stood highest on the greatest number of lists were then further considered on their general merits. Five of these were finally selected to send to the Building Committee as being on the whole distinctly superior to the rest, for one reason or another.

In estimating the area of the small offices, floor space more than twenty-two feet from the windows was not counted, and in estimating their value, those upon outer walls were considered twice as good as those upon inclosed courts and areas.

This work, in which the professional adviser of the association was aided both in the clerical labor it involved, and in the more difficult task of criticism and judgment by a number of his friends—the value of whose assistance he hereby gratefully acknowledges—occupied just a week. He then opened all the envelopes and reviewed his action in the light of the information they furnished, but without finding reason to change his mind. On Thursday, the 24th of June, the five selected designs were sent to the Building Committee in Kansas City for their final judgment, with a written report, containing some comments upon the designs, but without any special recommendations. These reached the committee on Monday morning, June 28. This paper is printed below.

After diligent and almost continuous study, the committee, on Wednesday, June 30, came to a unanimous opinion. This they reported to the Exchange Building Association in the following terms:

"After a careful and detailed examination of these designs, your committee rejected two as unsatisfactory, because in one instance the office rooms intended for renting contained too much floor space to admit of a satisfactory rental from the building, and in the other instance, too large a floor space was given to ante-rooms of little or no rental value. Of the remaining three, no one of which was entirely satisfactory, though each one contained very decided advantages of one character or another, the committee finally rejected one because the large hall of the Board of Trade was without windows in the side walls, being lighted and ventilated through the ceiling, which your committee was persuaded could not be satisfactory to the users of the hall. Of the two then left, your committee finally selected the one marked 'UTILLISSIMUS,' which was plainly the best of all for the lighting and ventilation of the offices, giving to the halls the best positions possible, and furnishing the largest number of offices for

rent in the best groupings for advantageous use, and on the whole, promising probably the largest returns of income, and admitting of the correction of all supposed defects with the least interference with the main features of the plan."

Upon being assured by their professional adviser, who had meantime been summoned from New York, that the alterations suggested could easily be made, and that the author of the plan in question was entirely deserving of their confidence, the committee formally voted to accept this design. The envelope containing the names of the five selected competitors being then opened, they found the selected design to be the work of Messrs. Burnham & Root, of Chicago, the other four, in the order of their preference by the committee, coming from Messrs. Edbrooke & Burnham, of Chicago; Messrs. Weston & Tuckerman, of New York; Mr. John L. Faxon, of Boston, and Mr. W. W. Clay, of Chicago.

Although only these five designs were submitted to the committee for consideration, all the perspectives were sent to them for their information, and to gratify a reasonable curiosity.

The committee took no steps toward determining the relative or absolute cost of the building shown, believing that this was largely within their own control, being determined by the special materials or methods of construction they might adopt. These points they could most profitably consider in consultation with the author of the selected plan.

The course of this competition has thrown some light upon several questions which, in discussions upon this subject, have been much debated. It has been questioned, for instance, whether it is desirable to have drawings made in perspective, the impression being a prevalent one that such drawings are likely to be misleading and deceptive, giving a much more favorable impression of a design than it deserves. However this may be with perspectives finished in water colors, the contrary seems to be conspicuously the case with drawings in line, such as were asked for in this instance. The perspectives have in this case served mainly to bring into prominence defects of design that were not noticeable in the elevations, only those designs that presented a plane surface, almost unbroken by recesses and projections, seeming to be secure against a very serious disparagement when thus presented. In other cases, the composition of wall and window, plain and decorated surfaces, which in elevation looked all right, would often, when put into perspective, fall into shapeless disorder. Such drawings seem, then, especially where the point of view is taken as near the building as in this case was necessary, rather to bring out the latent defects of a design than to invest it with fictitious merits.

It has been a matter of debate, also, whether the practice of concealing the identity of competitors under a fictitious name was of any value, the opinion obtaining that it was always easy to penetrate the disguise. The contrary has been the case, however, in this instance, the most confident convictions of half-a-dozen tolerably experienced architects having been ludicrously set at naught when the real authors of these designs became known. Only one or two correct guesses were made at all, and these took the form rather of surmise than of definite recognition.

This *incognito* has, moreover, proved to be of great practical convenience in judging the designs. Although, as was distinctly set forth in the paper of *Instructions*, the committee intended to be guided in their final choice by personal and other business considerations, as well as by the relative merit of the designs submitted, they were very glad in examining the five sets of designs that came before them, as their professional adviser had been in selecting these five, to keep the two questions apart, and to be able to discuss the drawings solely upon their merits, leaving other matters to be considered when their time came. It was felt that to have entertained both questions at once would have been greatly to complicate and embarrass the discussion.

Some light has also been thrown upon the vexed question whether the final choice among the competitors should lie with a building committee or with the experts whom they may bring into their counsels. It is certainly best that a committee should put the chief labors of examination and inspection into the hands of professional inspectors, if for no other reason than this, that in no other way can they so effectually inspire confidence and prove themselves to be above partisanship and intrigue, as by putting the exercise of favoritism out of their power. But it is not necessary to this end that they should have no voice in the selection, and questions may well arise, as in the case in hand, which demand for their solution an act of absolute and arbitrary choice which only the proprietors, or the committee representing them, are in a position to exercise. What relative importance to attach to rental, convenience and general architectural expression and character and what, on the whole, convenience will require, are not questions for a professional expert, but for his clients. In the present case, the professional adviser of the association was able to select five designs with a certain confidence that each was, on its own ground, superior to the remaining forty-eight. But the differences between these five were differences rather of kind than of degree, raising questions, as is shown in the committee's report to the Association, which only the owners could answer. It would have been impossible and improper, in this case at least, for any professional adviser to make their choice for them.

This competition has demonstrated, also, what there has been too much reason to doubt, that if proper regulations are made, it is possible to carry on such a contest and bring it to a conclusion without the exercise of any personal influence whatever on the part either of the judges or of the contestants. The committee and their adviser had, in this case, no knowledge or intimation of the authorship of any of the designs until after their judgment was formed. The competitors, also, with one or two insignificant exceptions, abstained absolutely from any attempts to exert any outside pressure upon them, and in these cases were signally discomfited.

The designs sent in have not been seen by the successful competitor nor by any persons except those mentioned above as having been specially invited to inspect them, and they will be forthwith returned to their owners, unless they otherwise direct.

EDWARD H. ALLEN.
WILLIAM R. WARE.

W. R. WARE'S REPORT.

Edward H. Allen, Esq., Chairman of the Building Committee of the Kansas City Exchange Building Association:

DEAR SIR,—In fulfillment of the task intrusted to me by the Exchange Building Association, I have examined the fifty-three designs for the Exchange Building which have been sent in to me, and herewith inclose to you, in accordance with the provisions of the printed instructions, those which I find to be the best among them, five in number, with the following comments:

These five designs are, in my judgment, distinctly to be preferred, for one reason or another, to any of the remaining forty-eight. Any one of them, if carried out substantially as shown in the sketches, would give the association an excellent and satisfactory building. This being so, it is for the committee to decide which, on the whole, best meets their wishes as promoting their own convenience, or as furnishing a good business investment, or as possessing a suitable architectural character.

I. The design designated by a *Corinthian Capital* offers the largest number of offices to be let for business purposes—one hundred and five in all, besides four railroad offices. Of these one hundred and five, eighty are upon external walls, and look into the streets, and twenty-five are lighted from an interior court. This court is, however, of exceptional size. The safes are concentrated in the basement, where the restaurant also is placed.

The large hall for the Board of Trade is on the second story, and is lighted entirely from the ceiling, being under the large court. This leaves the main part of the building for offices, which accounts for their exceptionally large number.

The exterior of the building is dignified and monumental, without affectations of any kind, and in general expression and character is entirely suited to the purpose for which it is designed.

II. The design marked *Utilissimus* is second in number of offices, having, besides eight railroad offices, ninety-eight smaller offices. All but six of these are upon external walls, and thirty of them are connected with secondary rooms in the rear. If these are counted separately, the total number of small offices is one hundred and fourteen.

In this design, besides the safes accumulated in the basement a considerable number are distributed through the building. The restaurant and most of the water closets are in the fifth story.

The large and small halls occupy the fourth and fifth floors in the northern wing of the building, and the offices connected with them the southern wing of the fourth floor.

Light and air are introduced into the interior of the building by a large court open to the street upon the south side. At the back of this court is an excellently designed tower; giving the building an effective and striking individuality. The rest of the design, however, seems to leave something to be desired in point of architectural character and expression.

III. The design marked with a *T-square and triangle* is the third in respect to the number of offices and the first in the amount of floor space given to them. Besides four large railroad offices, there are eighty-nine small offices, of which sixty are on external walls and twenty-seven on an area. Thirty-nine of these upon the outside walls are connected with twenty-three interior rooms. If these are counted as separate offices, the whole number amounts to one hundred and ten.

The restaurant is in the basement, and the safes are distributed in stacks through the building.

The large hall occupies the fourth and fifth stories at the east end, the offices attached to it, with the small hall, filling all the rest of the fourth story.

The exterior is treated in the Romanesque, or round-arched mediæval style now coming into vogue, and is, perhaps, more agreeable in itself and more suitable for a building of this kind than any of those designed in this manner. It is quite free from extravagance and eccentricity.

IV. The design marked *Anti-Cyclone* shows five railroad offices, all double, thirty-nine exterior offices, of which twenty are double, and seventeen on a court, of which twelve are double, making fifty in all. If the extra rooms are counted separately, the whole number amounts to eighty-eight.

A few safes are shown, distributed through the building. The rest are in the basement.

The large hall occupies the second, third and fourth stories at the west end, the offices attached to it and the small hall being in the second story.

The external aspect of this design, though not following the prescriptions of any special historical style, presents a simple and dignified architectural composition, eminently adapted to the important place this structure is meant to take among the public buildings of the city.

This is one of the few designs submitted which appears as well in perspective as in elevation. The tower with which it is adorned is unusually well composed, simple and elegant. It is to be noticed, also, that the two external courts on the rear, though not so wide as they well might be, not only give light and air to the rear offices and water closets, but serve to detach the building from the rest of the block, to the great advantage of its appearance—making it virtually an isolated structure.

V. The scheme marked with a *pair of compasses and a carpenter's square*, gives five railroad offices and sixty-one others, all single, of which forty-seven are exterior, nine on a small area, and five on an interior well.

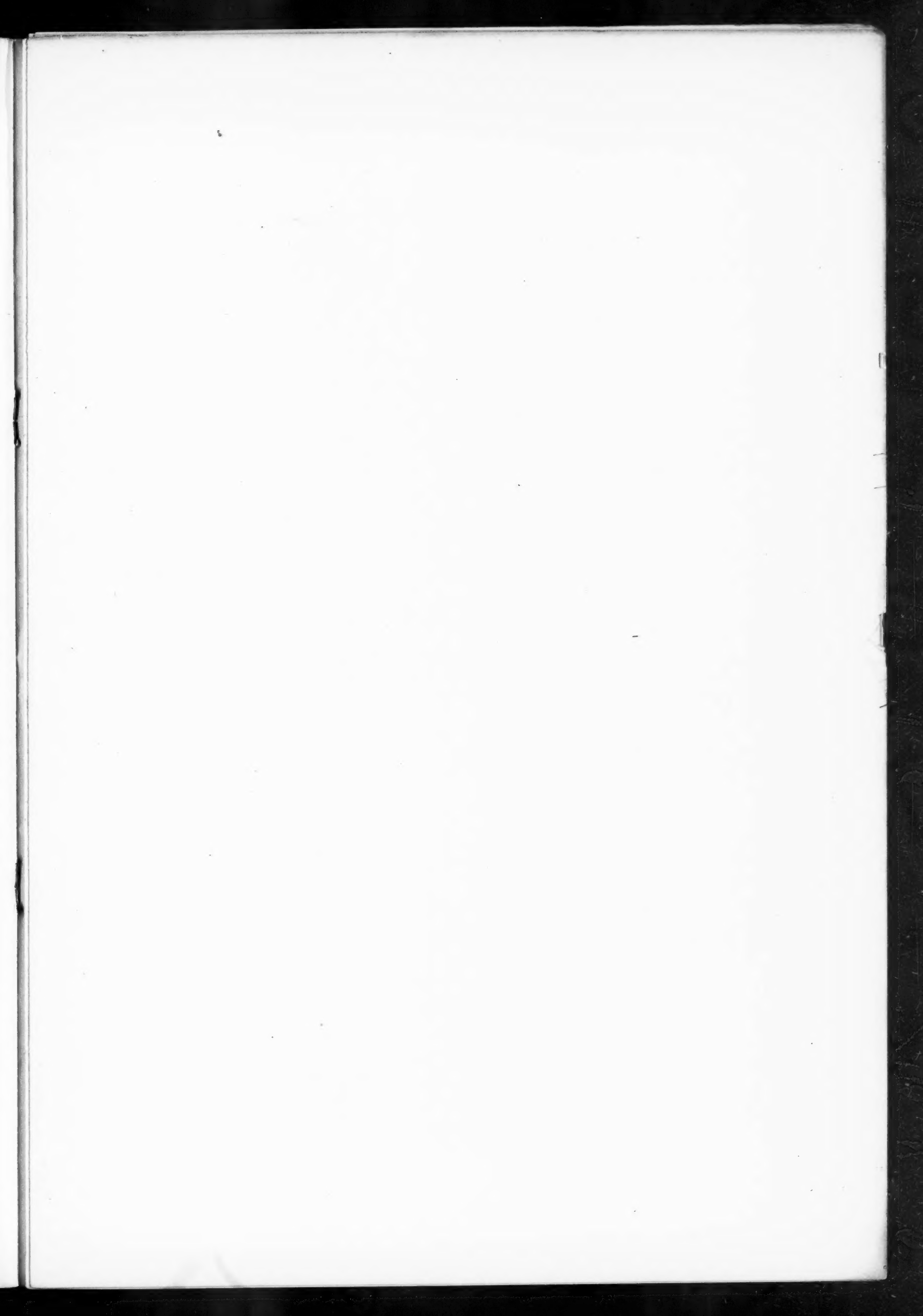
The large hall is larger and higher than in most of the others, occupying the whole of the second, third and fourth floors in the eastern end of the building. The offices attached to it and the small hall occupy the rest of the second floor.

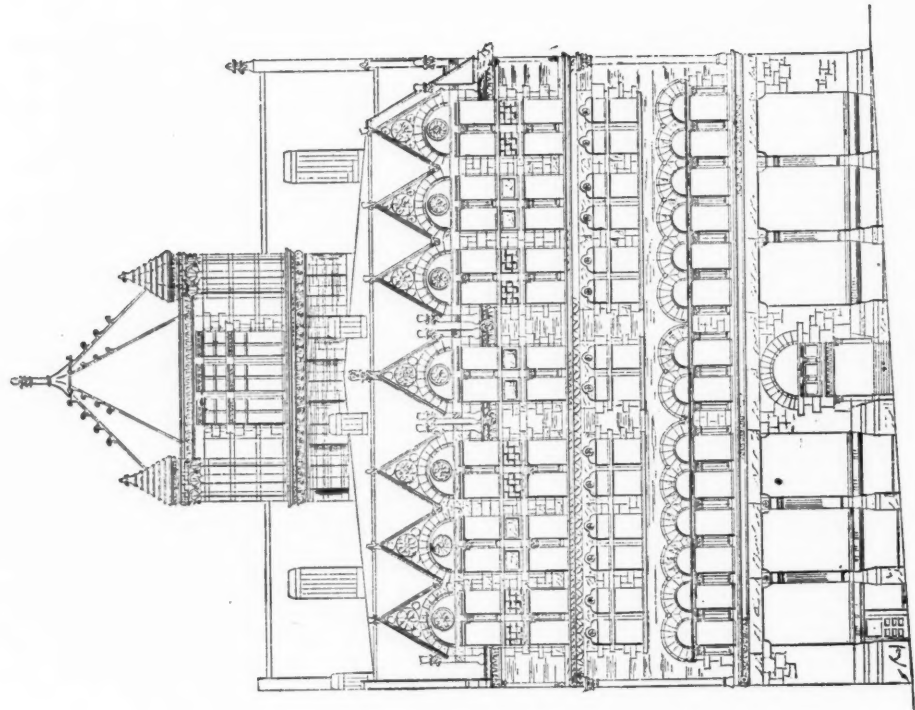
In many of the designs submitted, the large hall was planned in the middle of the front, either upon the second or third, or in the fourth or fifth stories. But none of the competitors who adopted this arrangement succeeded, in my judgment, in giving it a satisfactory architectural treatment.

Yours respectfully,

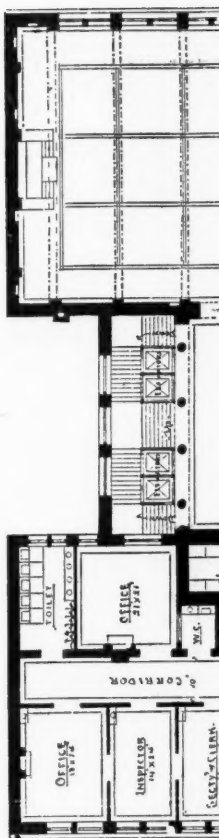
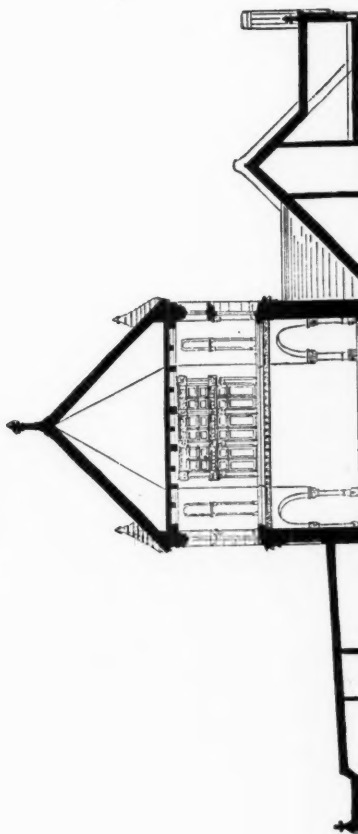
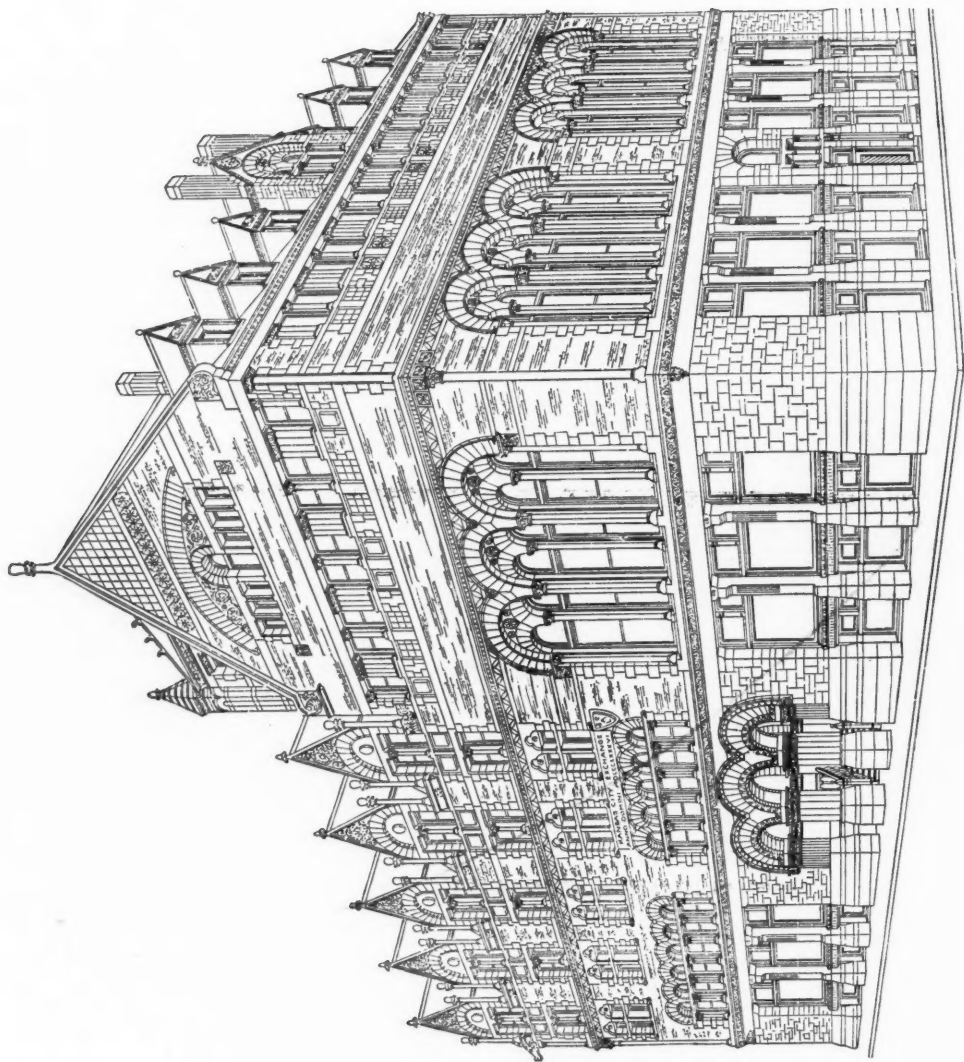
New York, June 24, 1886.

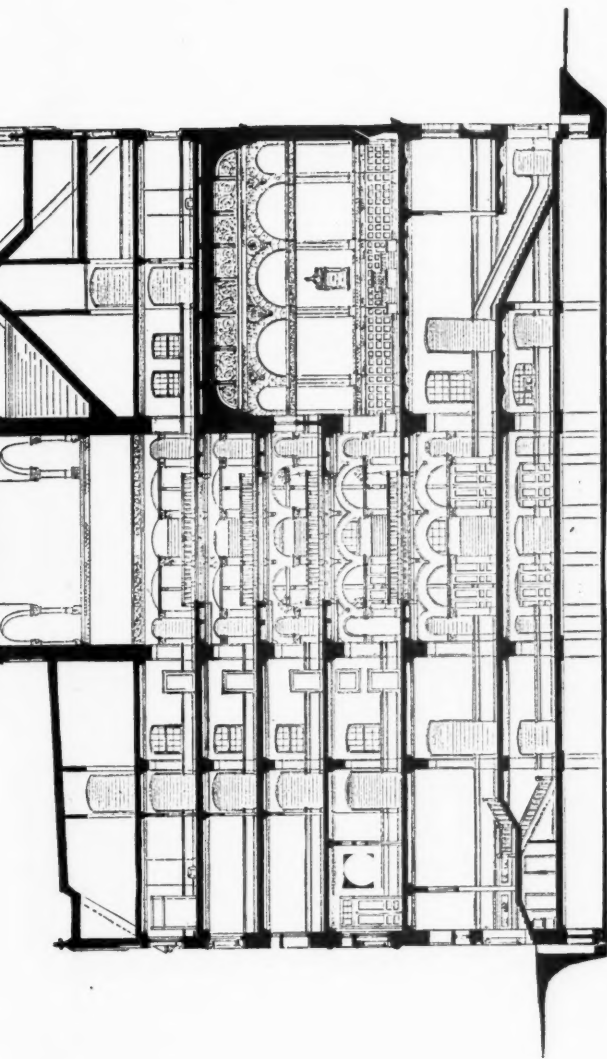
WILLIAM R. WARE.



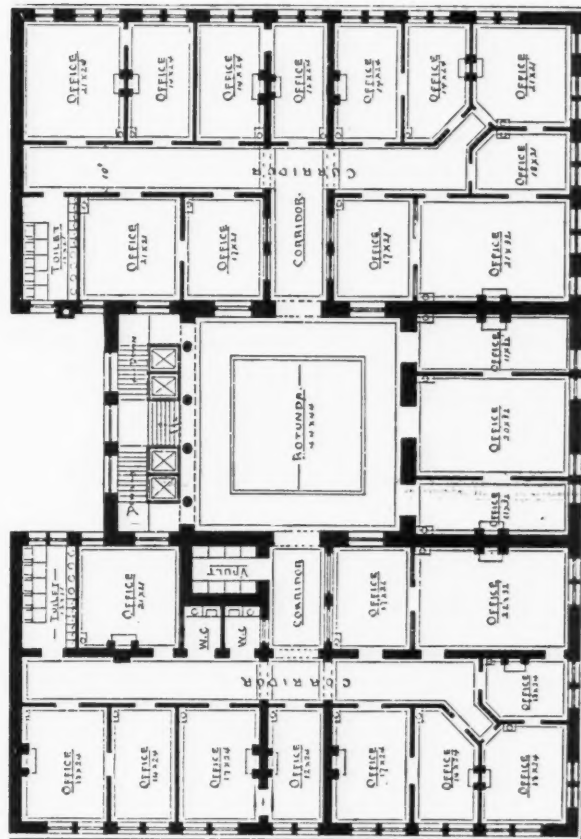


— FACADE —

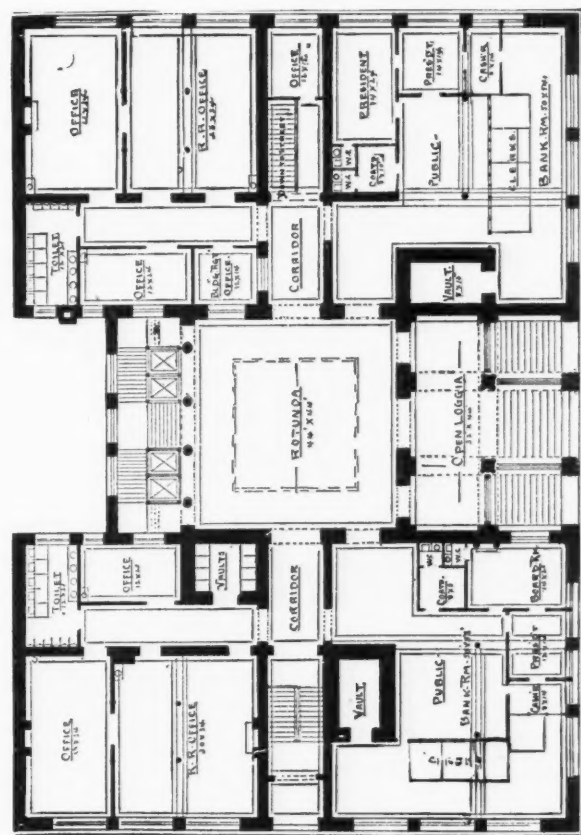




PLAN of SECOND FLOOR.



PLAN OF FIFTH FLOOR.

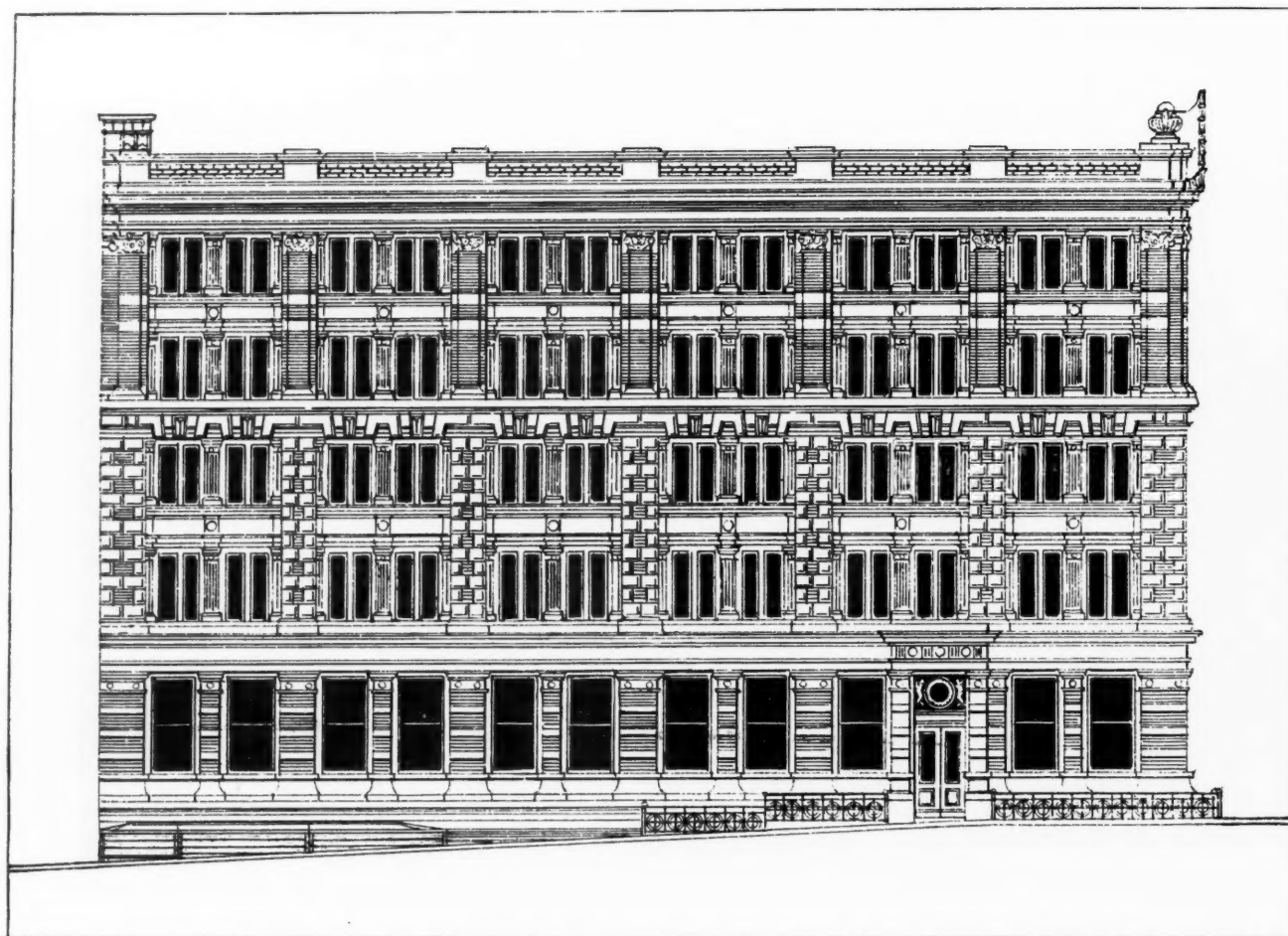
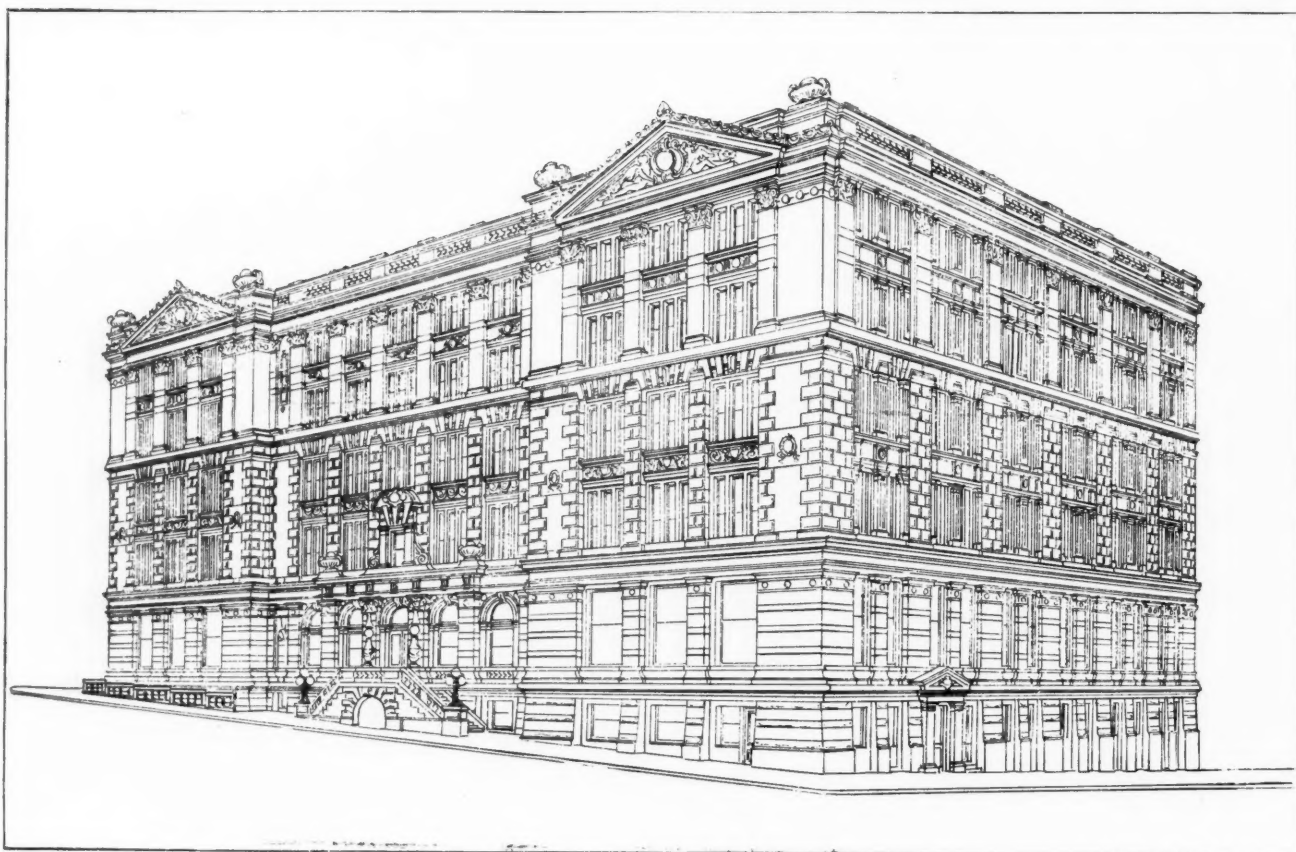


PLAN-OF-FIRST FLOOR

Inland Architect and Builder Print.

FOURTH PREMIATED DESIGN FOR KANSAS CITY EXCHANGE BUILDING.

SUBMITTED IN COMPETITION UNDER DEVICE OF A PAIR OF COMPASSES AND A SQUARE, BY JOHN L. FAXON, ARCHITECT, BOSTON.



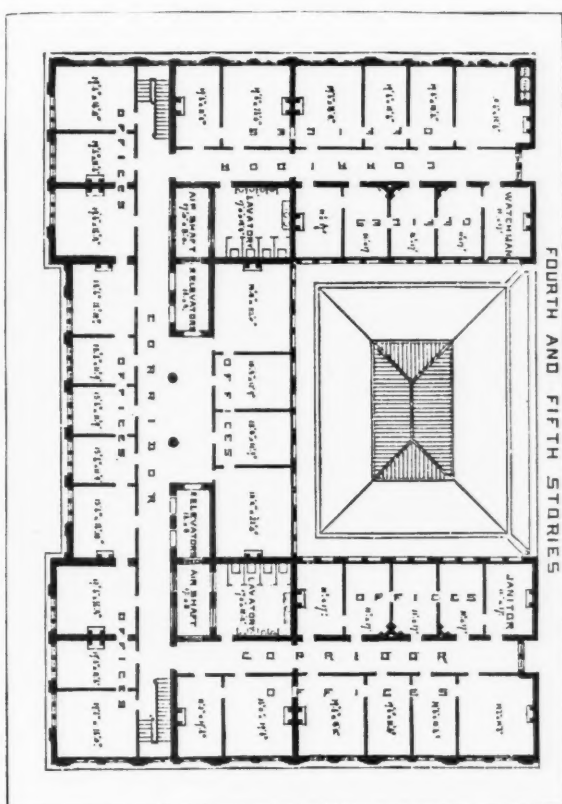
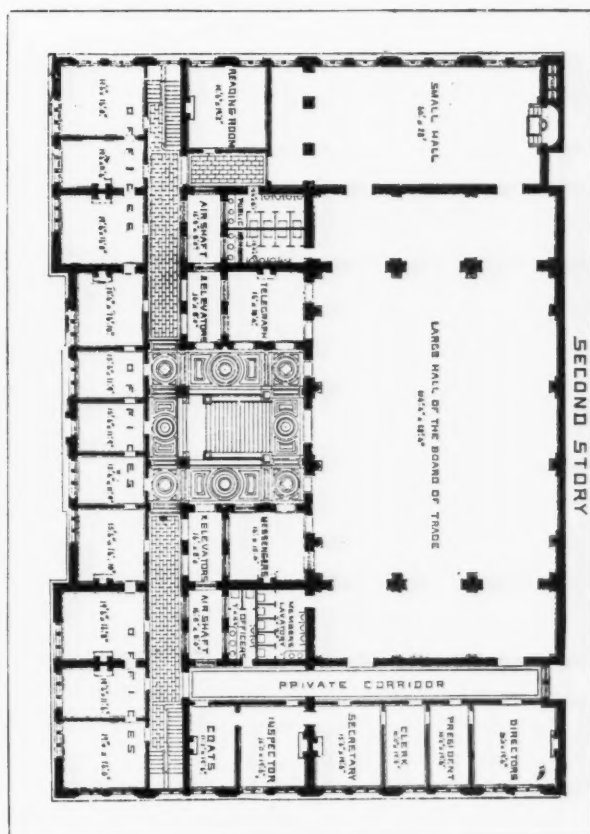
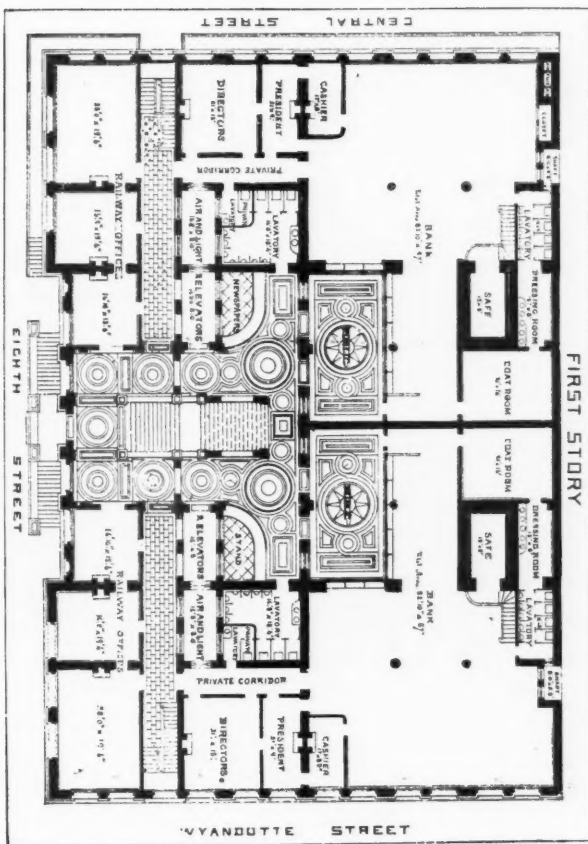
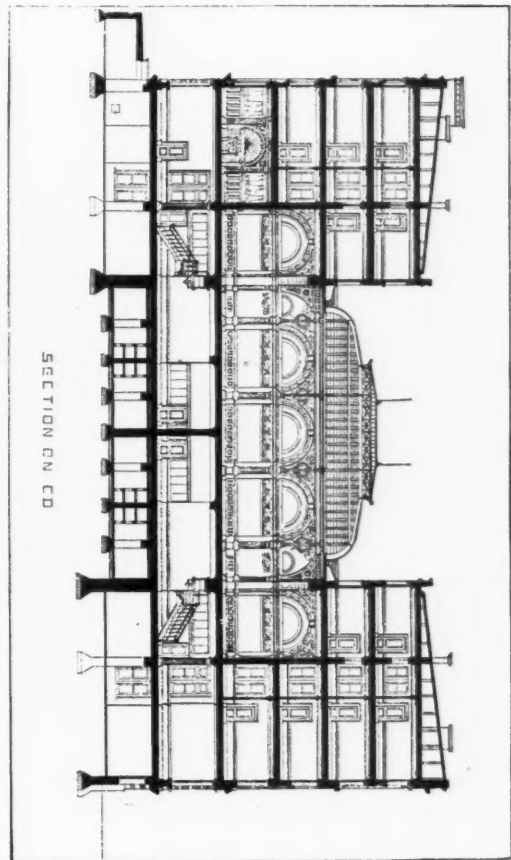
ELEVATION ON CENTRAL STREET

Copyright 1886 by Inland Publishing Co.

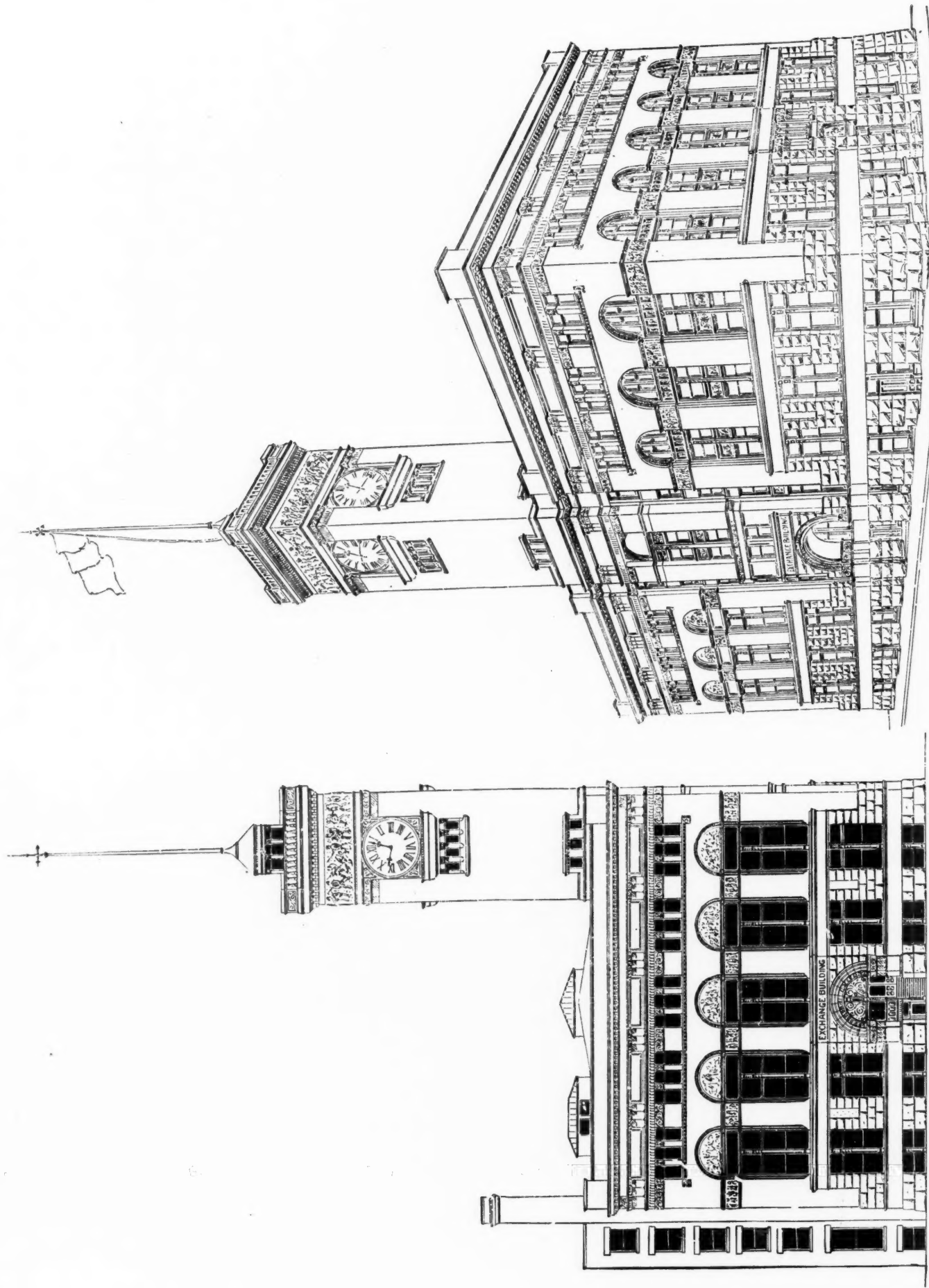
Inland Architect and Builder Print.

THIRD PREMIATED DESIGN FOR KANSAS CITY EXCHANGE BUILDING.

SUBMITTED IN COMPETITION UNDER DEVICE OF A CORINTHIAN CAPITAL, BY WESTON & TUCKERMAN, ARCHITECTS, NEW YORK.

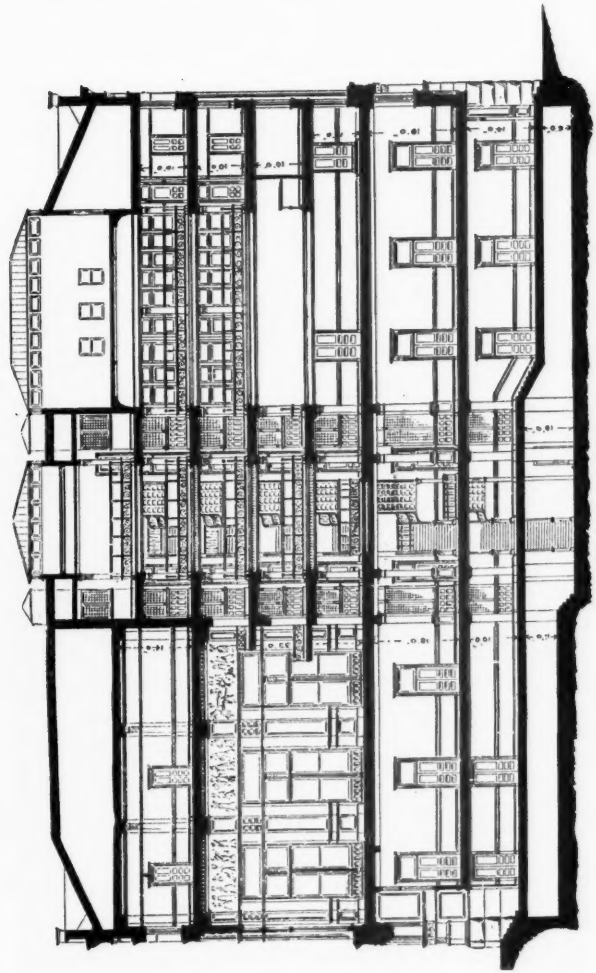


THIRD PREMATED DESIGN FOR KANSAS CITY EXCHANGE BUILDING.

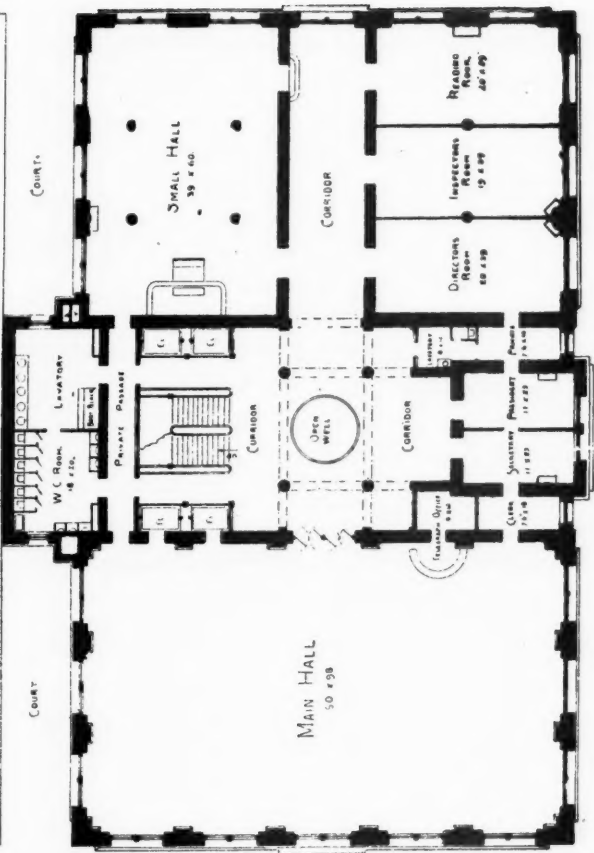


CANAL STREET ELEVATION

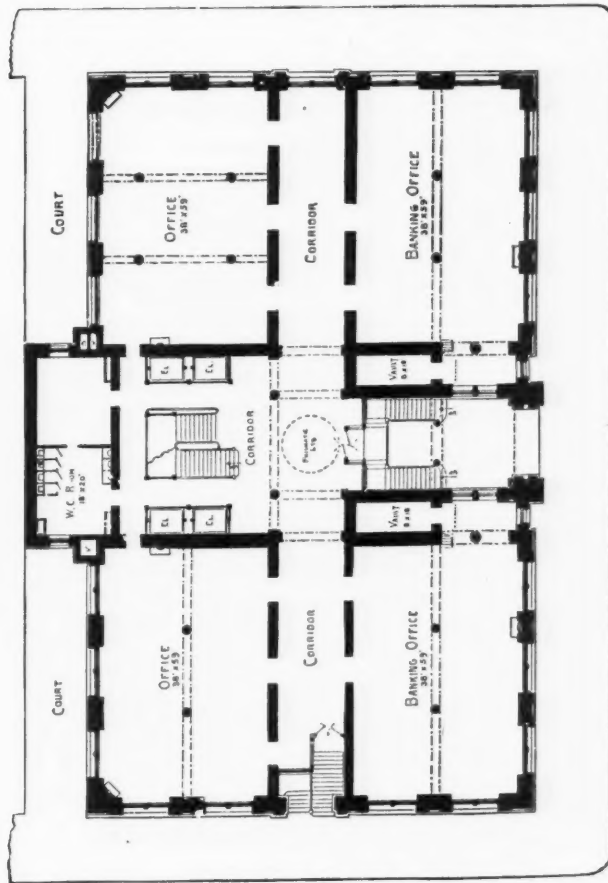




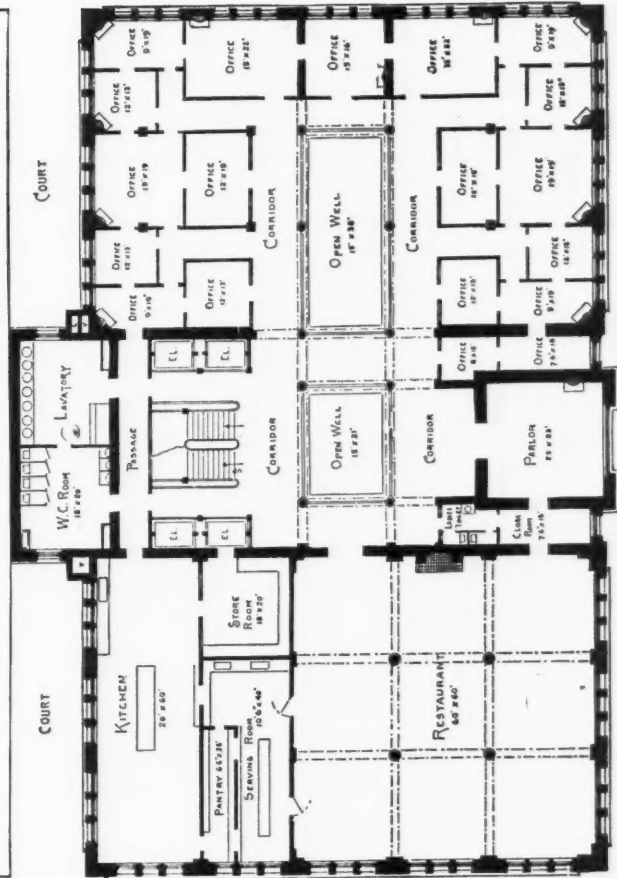
LONGITUDINAL SECTION.



SECOND FLOOR.



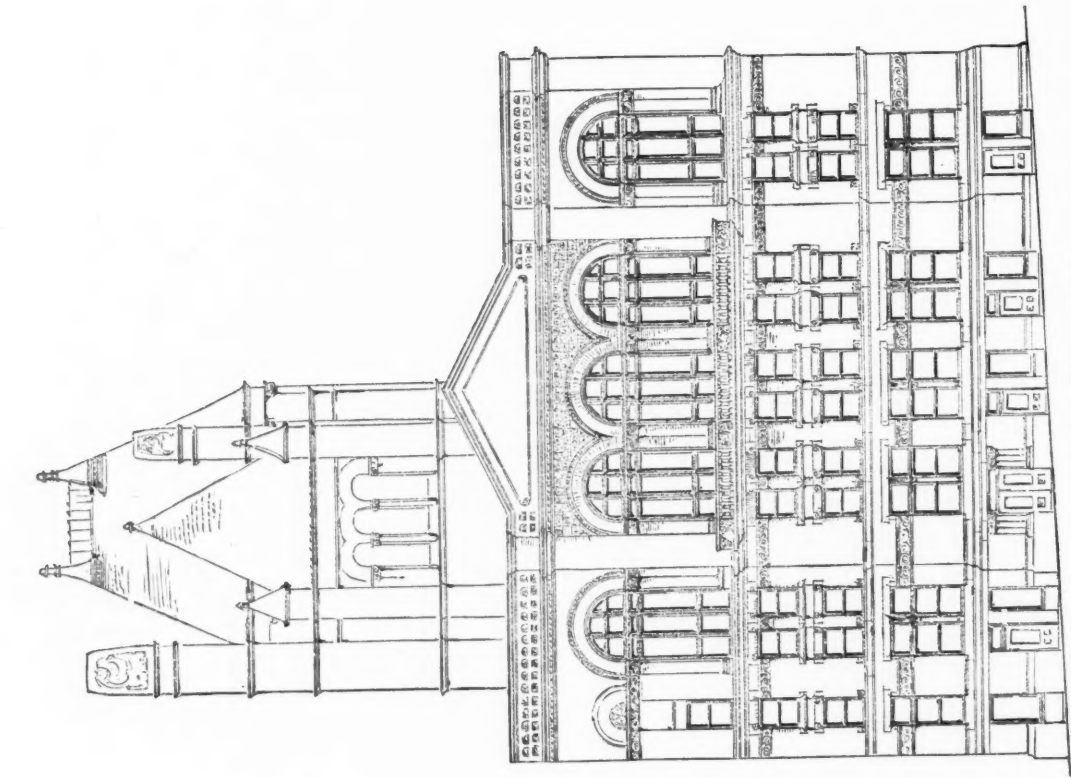
FIRST FLOOR.



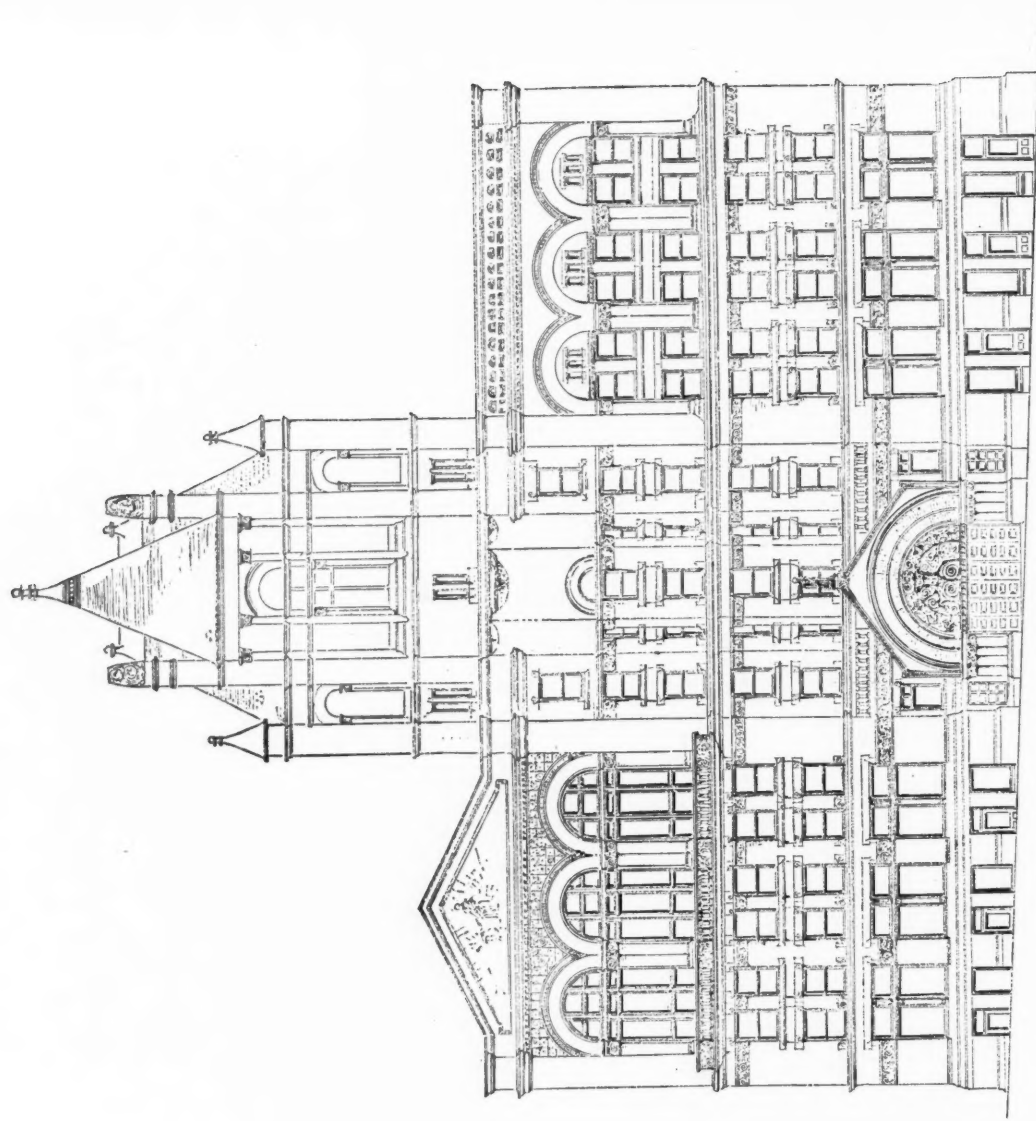
FIFTH FLOOR. *Inland Architect and Builder Print.*

SECOND PREMATED DESIGN FOR KANSAS CITY EXCHANGE BUILDING.

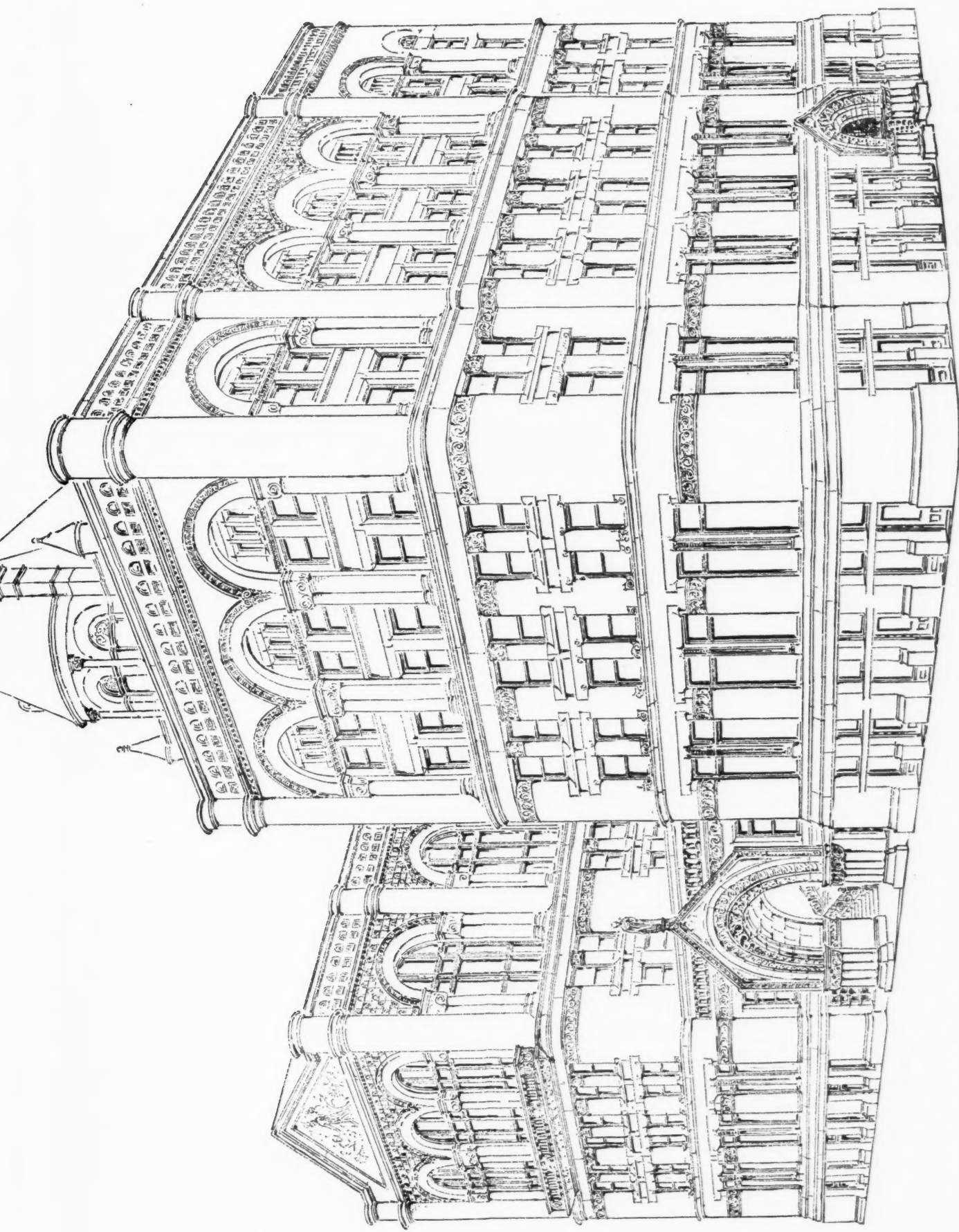
SUBMITTED IN COMPETITION BY "ANTI-CYCLONE." EDBROOKE & BURNHAM, ARCHITECTS, CHICAGO.



WEST ELEVATION



SOUTH ELEVATION.

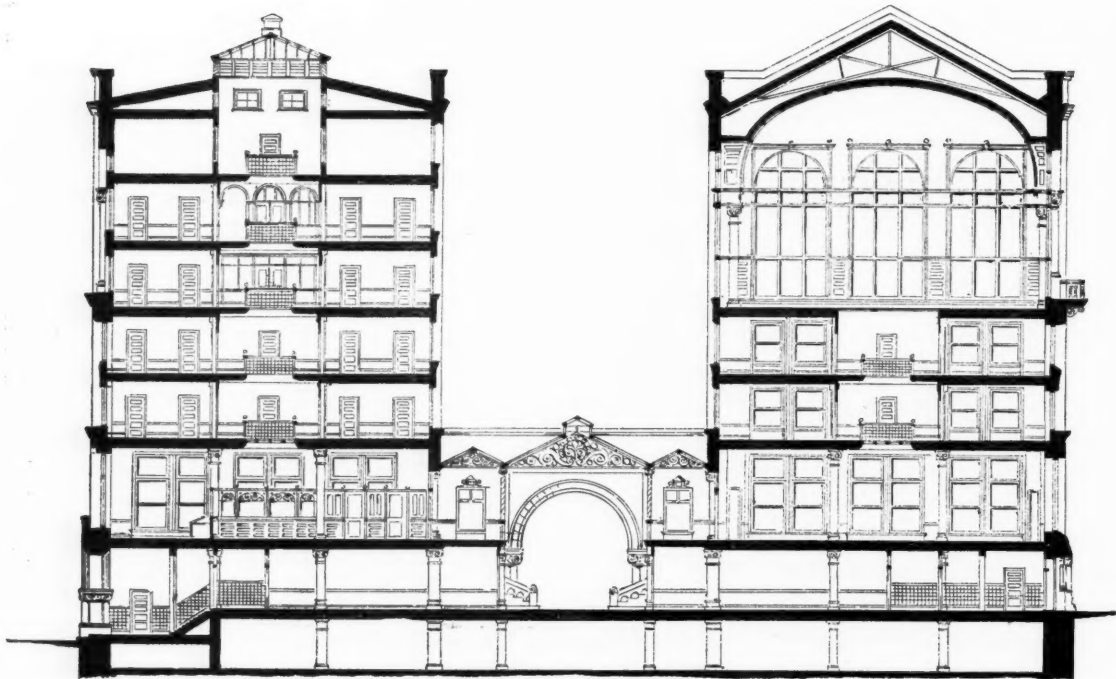


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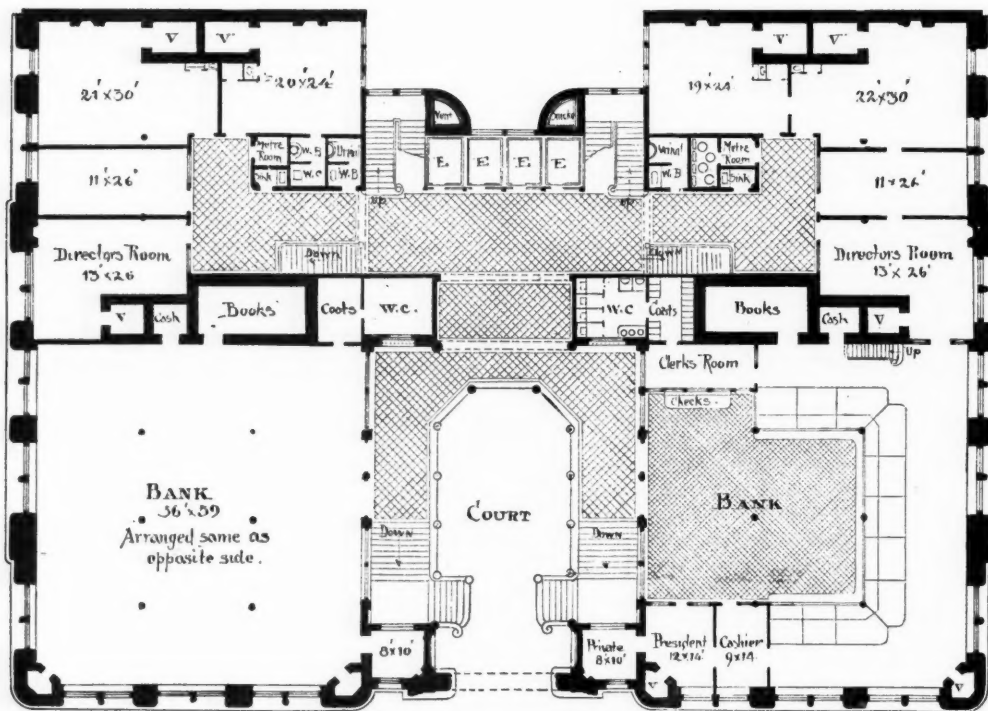
Inland Architect and Builder Print.

ACCEPTED DESIGN FOR KANSAS CITY EXCHANGE BUILDING.

SUBMITTED IN COMPETITION BY "UTILISSIMUS." BURNHAM & ROOT, ARCHITECTS, CHICAGO.



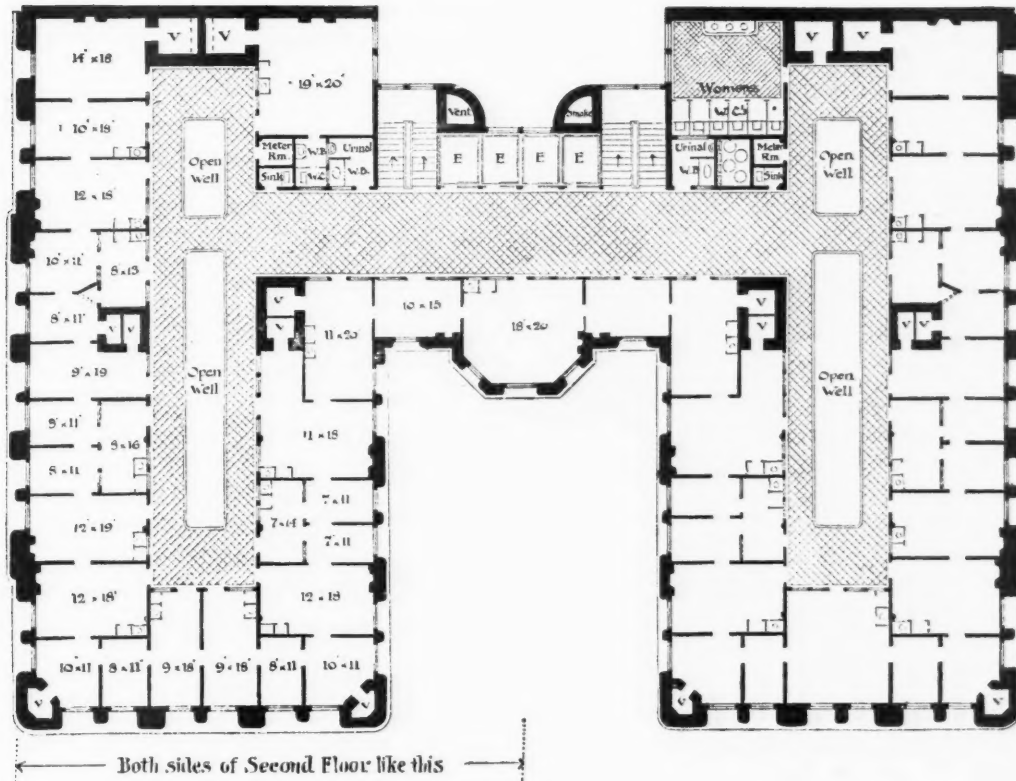
SECTION ON LINE C. D.



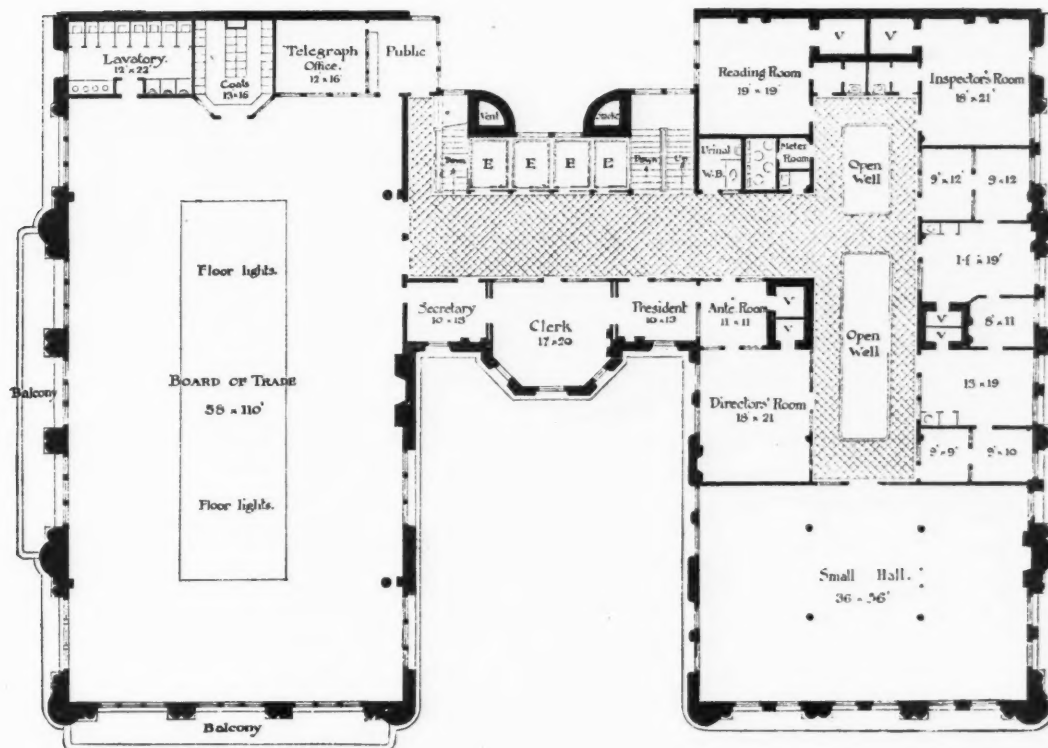
FIRST FLOOR

ACCEPTED DESIGN FOR KANSAS CITY EXCHANGE BUILDING.

SUBMITTED IN COMPETITION BY "UTILISSIMUS." BURNHAM & ROOT, ARCHITECTS, CHICAGO.



THIRD FLOOR.



ACCEPTED DESIGN FOR KANSAS CITY EXCHANGE BUILDING.

Our Illustrations.

FIRST PREMIATED AND ACCEPTED DESIGN.

By Architects Burnham & Root, of Chicago, for the Kansas City Exchange building, placed in competition by them under the motto of "Utilissimus."*

This competitor began a study of the problem by laying out all plans he could devise as feasible for such a building and lot. Their value as to exterior light and air was then compared; and the one herewith submitted giving the best results, was therefore chosen.

It depends but little on interior courts, and opens well to the south, from whence comes most of the sunshine and the summer breezes.

The plan, therefore, suggests the motto, which latter represents the practical design, and is not intended to refer to the maker of it.

Following out this scheme of looking first and only to practical utility in the consideration of all main questions, the outside of the building is to be almost entirely of red brick and red semi-glazed terra-cotta.

First—Because these materials alone are fireproof.

Second—Because they are always bright and warm in their glowing monotone.

Third—Because they keep clean and do not grow dingy with age.

Fourth—Because, most especially, good effects are obtainable by these materials more cheaply than by any other known to your designer.

Some quality of dark brown sandstone is intended for the basement, but the faces of the piers, even here, between water tables, will still be simply red brick in order to prevent the piers giving way at this point under a fire, which would be extremely disastrous.

The use of the different stories is as directed by you, but the necessary height of the great trading-room, dictates an attic on the right wing. This is fortunate, as it gives ample space for the house and elevator tanks, their various connections, circulating pipes, etc. Also for ventilating machinery, and for rooms for the engineer and janitor. The tower is placed at the rear end of the great south court, where it will command the mass from the only available point of view one ever gets in our narrow city streets, namely, from directly in front of the building looking up this space.

A tower would be of little or no value on any street frontage, and, therefore, it was with gladness that your designers found they could avail themselves of the shape of the plan for this purpose. Late observations of this arrangement have satisfied us of its stately effect.

However, a tower may be dispensed with for economy's sake and a different and lower treatment devised in its place, which will fitly end the perspective at this point. Indeed, any tower will probably have to be left out of the actual building, in view of the small appropriation made for the same. But if it remains, such a position as designated would undoubtedly be the best place for it.

Please notice that the elevators are placed where most convenient for all three entrances and where the light is of least value for offices. Please note also, that each wing has a court up through it, illuminated in one case by skylights in the roof, and in the other by Hyatt lights in the floor of the great trading-hall.

The main entrance is domed with Hyatt lights. The water closets are principally located in the upper floors, where most approved by late experience in New York and Chicago.

Fireproof vaults are built up as shown, because,

First—They are cheaper than any competent safety deposit made by itself would be.

Second—Because offices rent with them more readily than without.

Third—Because they add greatly to stability in the construction.

Finally—Because the building will be stronger, more economical and more remunerative with them than without.

The plan lends itself to these vaults perfectly. In several cases in the city in which your designer lives, it has been found by agents having charge of buildings that massed vaults, although in each story, are almost useless, and that the absence of regular vaults is a bar to renting in many cases, even when public vaults in each story are offered in lieu of them.

It is not deemed necessary to more minutely describe this design, as the author of it has full confidence in the professional adviser, and feels that under his investigation everything of value will be brought out without tediously calling his attention to the same herein.

Respectfully submitted,

UTILISSIMUS.

SECOND PREMIATED DESIGN.

By Architects Edbrooke & Burnham, Chicago. Descriptive of the proposed Kansas City Exchange building, in accordance with designs presented under the motto of "Anti-Cyclone" and agreeable to printed instructions.

The accompanying designs contemplate a building, five stories in height, with basement and sub cellar.

The size upon the ground of the building proper at basement lines will be 171 by 105 feet, leaving two open courts, each about 15 by 63 feet, to provide light and air for all the back offices, rooms, water-closets, lavatories and boiler department.

The central transverse corridor portion of the building, as shown on all floors, will extend back to the back line of the lot, affording ample, convenient and a retired space on each floor for public lavatories, water closet, rooms, etc., also department for steam boilers, pumps, etc., and if desired will give a corridor connecting this with the adjoining building.

The elevator and house tanks will be located in the top or sixth story of this stack; the elevator cylinders, traveling sheaves and cables will also be located within this space, and generally it will be a point of concentration of the entire water, steam and machinery works of the building.

The sub-cellar will extend under the entire building, and will accommodate steam piping, indirect radiators, storage of fuel, etc., and check moisture from rising to the basement floors.

* These Architects were also among the three paid competitors.

The basements are elevated well out of the ground, thereby securing convenient, light and desirable offices, without unsightly areas to light same.

Owing to the grade of the sidewalks on the three fronts, it was thought advisable—grades vary 11 feet from the highest to the lowest points—to enter the basement level with the sidewalk at the main south entrance, and continue the main transverse corridor floor and entire west half of the basement floor at same level with the floor of this the south entrance, this part of basement being 10 feet high in clear, and the floor of the entire east half dropped 4 feet lower than west half, making the east half 14 feet high in clear, and the floor of same a little above sidewalk at the entrance on Wyandott street, rendering the basements convenient and accessible from sidewalks on all sides, and the ascent to the principal-floors being by inside steps, stairs and the elevators in preference to climbing long, outside steps, which would destroy a good entrance to either basement or principal floor.

There will be an attic or sixth-story occupying the entire transverse corridor portion from the tower back to back line of lot, including the space where tanks will rest over the water-closet department.

The elevators and main stairs will extend from basement to attic story, giving the public access to the tower and observatory, and providing, in addition, janitor's rooms, etc.

The two elevators adjacent to the main hall will open directly into the main hall, and one of same will open into the restaurant store-room on fifth floor.

The height of stories are shown as follows, namely:

Basement, as before stated.....	14 and 10 feet.
Principal story	18 feet.
Second story	10 "
Third story	10 "
Fourth story	10 "
Fifth story	10 "
Sixth story or attic	12 to 14 feet.

Main hall will extend through second, third and fourth stories, and will be about 33 feet in height, and will have two balconies.

The small hall will extend through the second and third stories, and will be about 21 feet 6 inches in height, and will have a graded floor. Restaurant 14 feet high.

The entire building is intended to be fireproof, and the exterior constructed of stone, brick and terra-cotta.

The floor of restaurant department on fifth floor, which also forms the ceiling of main hall, will be suspended by wrought-iron trusses placed in the main roof.

It was thought preferable to place the restaurant on the fifth floor, occupying a space of less rental value for office purposes, as well as being more pleasant and retired, and also to avoid the fumes of the kitchen extending through the entire building.

It will be readily seen by the plans that all of the rooms, offices and corridors in the basement, and upon all floors above, will be provided with an abundance of light and air, and, as far as practicable, with open grates.

The interior of the building above the principal floor will be carried on iron columns and girders as far as practicable, and divided by hollow tile partitions, so that any change in the divisions or size of rooms may be made at any time without injury to or molesting the strength and permanency of the building.

The main and small hall, restaurant, kitchen, etc., will have a thorough system of ventilation, the air being exhausted through the large vent stacks, and the smaller rooms and offices ventilated by open grates. The system of warming will be by steam, direct and indirect.

The tower will rise 165 feet in height above the sidewalk to the floor of the lookout.

The reasons for adopting the style of architecture shown by the design, and a comparatively flat roof, was to secure a massive and substantial effect, and in keeping with the uses of the building, and of the most lasting and durable character of construction and of moderate cost; with the low-roof method, the skylights are lower down and nearer to the parts to be lighted.

And as to the location of the main and smaller halls on the second floor, there is no doubt that the lower down the better for that important department, and if it were not for the necessity of having banking and other offices on the principal floor, that floor would be even more preferable for its location, as it is undoubtedly desirable to reach that department in haste, and oftentimes a preference will be shown to the stairs rather than wait for an elevator.

In the interior construction the bearings and supports are direct, the construction simple and economical in cost; the stairs and elevators centrally located, and all of the rooms and offices convenient and accessible from main corridors, and one connected with the other.

The main hall is placed in the southwest corner of the building, as this is the coolest location in summer and the warmest in winter; still, it could be located elsewhere if desired.

The drawings submitted consist as follows, namely:

Basement floor plan, principal floor plan, second floor plan, third floor plan, fourth floor plan, fifth floor plan, south, east and west elevations, transverse and longitudinal sections, and perspective.

All of which are most respectively submitted.

"ANTI-CYCLONE."

THIRD PREMIATED DESIGN.

By Architects Weston & Tuckerman, New York City, for Kansas City Exchange Building, submitted in competition under the device of a Corinthian capital.

The arrangement of the plan in a manner to obtain the best results in accessibility, lighting and ventilation appears to be sufficiently obvious in the drawings to dispense with explanatory comments.

The convenience and the easy approach to the Board of Trade Exchange, and the generous allotment of space to the two banks, which

are required to be in the first floor, were assumed to be of first consequence. The greatest available number of rentable offices of all grades was then obtained.

Corridors are on interior and direct lines, and offices reached by shortest distances from elevators and staircases.

All offices have direct light. All lavatories have direct communication with outside air.

Columns and girders have been introduced only where unavoidable. Lines of interior walls are arranged to give as nearly as possible uniform lengths of floor beams and evenly distributed weights throughout on all bearings. Grand staircase is of stone; side and basement staircases of iron. Roof of decks pitching inward to court to connect with drainage at Wyandotte street main sewer.

FOURTH PREMIATED DESIGN.

By Architect John L. Faxon, Boston, for Kansas City Exchange Building, submitted in competition under mark of "a pair of compasses and a carpenter's square."

Facades.—To be built, preferably, of dark Croton front bricks and trimmed with brownstone—in the quarry face, molded and carved, the carvings representing the flora and products of the state; the tablet under third story windows bearing the name of association, date of year, and the seal of the association at the right. The dormers, other than of masonry, and conductors to be of copper.

The roofs to be framed with iron and laid with terra-cotta tiles or red slate; the decks to be of copper.

The entrance loggias on Eighth street to be a marked and ornate feature of the building; to be open, with the exception of the outer arches being inclosed by gates of bronze, bearing in the center the monogram and seal of the association; the columns, flights of steps ascending and descending, and directory tablets to be of polished marble; the capitals, interior wall-facings and intersecting arches to be of light buff Ohio stone, with elaborate carvings. The ceiling to be framed and paneled with heavy beams and deep coffers in red-oak, carved; the entrance doors to be of the same, with small, carved panels, and hung with ornamental hinges of bronze.

The tympanum of the arches to be filled with allegorical carvings representing commerce, finance, agriculture, steam (railroading and navigation), art and manufacture; the flooring to be of marble.

The lintels covering first floor, the mullions and transoms, and grills to safety deposit windows to be of iron of ornamental design.

The windows to be glazed with plate glass.

All thick partitions to be of brick, others of fireproof blocks.

The floors to be constructed of iron beams and terra-cotta arches.

The rotunda, galleries, grand staircases and framing to elevator wells to be of iron, with ornate guards and balustrades; the flooring and treads of marble.

The structure over Board of Trade hall to be carried on box girders of iron running across the hall, and trussed iron girders running the length of the hall.

All interior columns to be either of iron or stone, those within the rotundas being of polished granite.

Plastering.—To be three-coat work, directly on the walls or on wire lathing throughout; cornices, beads, ornaments and wainscoting, other than marble, in plaster of Paris and Keen's cement.

Marble or tile flooring to be laid in all halls, corridors, vestibules, restaurant, safety deposit, railroad offices, toilet rooms, banks, Board of Trade hall, small hall, reading-room and inspector's office; maple, birch, or hard pine flooring to be laid in all other offices.

The wainscoting to all vestibules, halls, corridors, in basement, first, second and third stories, in the rotunda, grand staircase, banks, board of trade hall, small hall, reading-room and toilet rooms to be of marble; in all other offices, halls and corridors of Keen's cement.

Standing Finish.—To be of quartered oak throughout, doors hung with bronze-metal trimmings of special design.

All vaults to be constructed in the most approved fire and burglar-proof manner; the partitions in safety deposit, separating vaults from public, to have an ornate grill of iron from floor to ceiling, socketed into iron beams, partly filled with opaque glass; storage vaults being in the sub-cellar, access being had to them by the steps shown and by sidewalk elevators with burglar-proof doors set within foundation walls.

Toilet Rooms.—Plumbing to be first-class in every respect, and all standing finish either of marble or tile; seats only of wood, cherry.

Fireplaces.—To be lined with brick, soapstone or iron; mantels to be of oak, excepting those in apartments wainscoted with marble, where they are to be of marble corresponding with wainscoting; those in the Board of Trade hall, small hall and reading-room to be of marble from floor to ceiling, elaborately carved in flora, egg and dart acanthus.

Heating.—To be by tubular boilers; the boiler-room being in sub-cellar, under northeast corner on Wyandotte street, the coal vaults being under sidewalk.

The heating generally is to be by direct radiation, with cold air supply at the radiators.

The heating of Board of Trade hall to be by indirect radiators, radiators stacked in sub-cellar with cold-air supply from area in rear; the heated air passing to the hall by ducts in the walls, and discharging into hall half-way between floor and ceiling. The foul air to be drawn out by fan in sub-cellar through ducts in the walls and gratings in the wainscoting of hall, and discharged out into areas in sidewalk, shown with gratings on basement plan.

The architect has employed this system in halls, and knows by experience that it is the only sure and satisfactory system.

The entire building to be piped for gas and wired for electric lighting; the rotundas to be lighted by electroliers on the four corner pedestals to the gallery balustrades, by wall brackets and by brackets from the frieze to the wells corresponding with floor line of the galleries, and a circle of lights below the lantern windows. Bells and tubes to all offices.

Thirty thousand dollars to be allowed for painters' and decorators' work, \$15,000 being used for decorations of rotunda, Board of Trade hall, small hall and reading-room.

The postoffice to be fitted with United States lock boxes, and the "Cutler Mailing System" placed in the rotunda.

The building to be first class in every respect, thorough and substantial in construction, in accordance with the best building laws of the country, and under the immediate supervision of the architect and his assistant, and no expense will be spared in the office that every detail of construction, architecture or decoration shall be worked out, to the end that the building may be a marked example of purity of style in its entirety.

Association Notes.

ILLINOIS STATE ASSOCIATION OF ARCHITECTS.

Meeting of August 5, 1886. President Burnham in the chair.

The chair having called the meeting to order, Acting Secretary Stiles read the minutes of the previous meeting, which were accepted.

The President: Has the Committee on Party Walls made preparation to report at this meeting?

Mr. W. W. Boyington: I am convinced that it will require more than one, perhaps two, good, long sessions of the committee to make a report. On behalf of the committee I therefore suggest that you either excuse us for the time being, or give us time to make a report at some future meeting.

The President: What we want to know particularly is what the architect's responsibility is, and if the committee can get those leading, sharp questions that come straight to us answered at the time of the meeting in September, it would be of great value to us. I did not suppose that the committee was going to make up a history of party walls, but I did suppose they would make a report in regard to these vital questions that come before us all the time. For instance, the owner says to me: "I want you to do so and so in that wall." There is no party-wall contract, but he says: "I will take the responsibility." I want to know in case he should fail financially whether it would come back on me, and whether he could simply step in and say, "My architect did so and so, and it is his fault." Now, that sort of a question, I think, ought to be answered.

The committee was given till the September meeting to make their report.

The President: What is the status of the committee on the sanitary bill?

Mr. Baumann: We hope to be able to report at the next meeting the outline of a plan to be pursued.

The President: The chair would suggest that the secretary call upon the committee having in charge the state bill, and mention the matter once a week, from now to the time of the next meeting, and upon the Committee on Party Walls the same.

Are any measures being taken looking to the entertainment of the Western Association at its convention next November? If not, I would suggest that some gentleman present make a motion appointing a committee to take that matter up. We ought to do all in our power to make the proper arrangements.

Mr. Treat: I move that the chair appoint a committee of three to confer with a committee of the same number of the Western Association to take steps for the entertainment of that Association here Wednesday, November 17 next.

Motion carried.

The President: The chair will appoint Mr. Treat (chairman), Mr. Holabird and Mr. L. H. Sullivan. The chair expresses the opinion of the association, no doubt, and hopes the committee will find a way to make these gentlemen feel that this visit to Chicago will be the most delightful yet experienced.

The motion is made that the committee be allowed to appoint sub-committees to assist them, and that the election by that committee will obligate the said sub-committees to serve.

Carried.

Adjourned.

CHICAGO ARCHITECTURAL SKETCH CLUB.

The meeting on the 19th ult. was largely given up to the reading and discussion of an excellent and well condensed and arranged paper upon the history of Greek and Roman architecture, presented by C. A. Kessell. In the discussion a general sentiment in favor of Greek forms in the line of ornamentation was expressed, but the difference in taste and custom had destroyed the practical worth of Greek modes of construction. Members thought that the reason modern people failed to see exceeding beauty in exact copies of the Greek temple when erected was because of the unharmonious surroundings and the education of a different taste. Mr. Beaumont voiced the sentiment of the club in words complimentary to Mr. Kessell, for the interesting way in which he grouped the different facts and their judicious selection.

It was announced that the library competition would close on the 2d of August, and the country shop front and the fountain competitions would close on the 16th of August.

The time for drawings to be sent to the office of THE INLAND ARCHITECT for the Minneapolis art and industrial exposition was extended to the 10th of August.

MR. GEORGE HASKINS, the interior decorator and furnisher, is completing entire a number of private residences outside of Chicago, among which are the following: For Mr. S. E. Atkinson, banker, Helena, Mont.; Colonel A. S. Johnson, land commissioner Santa Fé Railway, Topeka, Kas.; Mr. Jonathan Thomas, lumberman, Topeka, Kas.; Mr. George M. Noble, banker, Topeka, Kas. (the last three houses designed by F. W. Stickney, architect, Boston); residence for Mr. D. L. Wing, president Chicago & St. Louis Railroad, Springfield, Ill.; and for Mr. George F. Kirby, Marshalltown, Iowa. Mr. Haskins is just finishing the beautiful residence of Mr. George P. Braun, La Salle avenue, and will shortly commence a fine residence in Cleveland, Ohio.

Mosaics.

THE CUTLER MANUFACTURING Co. have lately given Mr. Richard Robins, in this city, the agency for their letter-chute for office buildings.

AN exhibit of building materials has been opened at Cleveland, Ohio, which has already met with considerable success. Frank Houghton is secretary, and can be addressed for particulars.

THE partnership heretofore existing between C. P. Thomas and John Rodger, under the name of Thomas & Rodger, architects, is dissolved, and the business will be carried on as usual at the office of C. P. Thomas, in the Equitable Building.

THE New York Architectural Terra-Cotta Company's works at Hunter's Point, Long Island, described in our July issue, were destroyed by fire July 18. These very complete and extensive works will be immediately rebuilt, and as the kilns and a great deal of the machinery was not injured, orders will be but little, if any, delayed. The loss was about \$100,000; covered by insurance.

THE GEORGIA MARBLE Co. have removed their Chicago office to 103 Dearborn street, corner Washington, where they have a large display of the various marbles quarried at their works at Tate, Ga. The officers of the company are H. C. Clement, president; Oscar F. Bane, secretary and treasurer; Frank H. Siddall, vice-president, and J. A. Dewar, general manager. The Chicago branch is under the management of Mr. Geo. H. Glazier.

MR. H. C. BLUM, traveling agent for the Mankey Decorative Company of Williamsport, Pa., called at our office with a fine line of machine-carved samples of wood for interior finish. Intricate geometrical and perforated designs of desirable widths and lengths are kept in stock. Designs furnished by architects are made to the most complete detail. Messrs. Lord & Eiker, Room 24, old Chamber of Commerce Building, are agents for Chicago and vicinity. They also report satisfactory progress in the improvements at Mount Hope Cemetery, for which they are furnishing Salem Stone, and in the Granite Church at Thirty-third street and South Park avenue, for which they are furnishing the Fox Hill Granite, also several other buildings which are using either Salem Stone or Fox Hill Granite in their construction.

THE Babcock & Wilcox Co., of New York, have lately placed boilers with the following parties: Brooklyn Bridge (2d order), 208 H. P.; Westerly, R. I., Water Works, 90 H. P.; Lehigh Coal & Navigation Co., Penn., 208 H. P.; Edison Lamp Co., Newark, N. J. (2d order), 104 H. P.; Excelsior Needle Co., Torrington, Conn., 61 H. P.; Huguenot Mills, Greenville, S. C. (2d order), 50 H. P.; Welham Plantation, Louisiana, 240 H. P.; Marks Bros., Philadelphia (2d order), 45 H. P.; Bird Coleman Furnaces, Cornwall, Pa. (2d order), 960 H. P.; Columbus Steel Co., Columbus, O., 480 H. P.; Benedict & Burnham Mfg. Co., Waterbury, Conn. (2d order), 156 H. P.; Cardenas Refinery, Cardenas, Cuba (3d order), 208 H. P.; Mt. Houmas Plantation, Louisiana, 240 H. P.; Southwood Plantation, Louisiana, 272 H. P.; Dakota Apartment House, N. Y. City (3d order), 240 H. P.; Edison Lamp Co., Newark, N. J. (3d order), 104 H. P.

ARCHITECTS and builders, who deem it necessary to keep up with the march of events, should give full consideration to the growing art of sheet metal construction. There is certainly ten times more sheet metal used in building now than ten years ago, and its uses are only fairly initiated, many new ones being devised yearly, prominent among which we mention fireproof corrugated iron arches for ceilings; tastefully painted, small-sized corrugations for interior decorations of public halls, theaters, offices and stores, and also for various other uses adapted for particular cases only; these in addition to the well known and practically tested use of iron for roofing and siding. We have the "Wire Age;" may there not be a sheet metal cycle? Perhaps the greatest single cause of the rapid increase in these uses of sheet metal has been the ably directed energy of the always advancing and reliable Cincinnati Corrugating Co., of Cincinnati, Ohio, whose "literature" is recommended to the perusal of all interested in building.

THE largest majority of health or pleasure-seeking tourists that have not the requisite wealth and time to visit the mountain resorts of Colorado, or the various water resorts of Northern Wisconsin and Minnesota, long for a resort that will combine the benefits of easy access, pure air and enough natural attraction to entertain and invigorate the spirit. Oregon, Ogle County, Illinois, possesses the combination in the greatest degree; on the Burlington Route, but 99 miles from Chicago, and reached from that point twice per day in less than four hours, with good and ample hostleries; numbers of springs gushing forth pure and health-giving water; the beautiful Rock river; towering hills and massive rocks, one can well imagine that all the popular and interesting resorts of the continent have been merged together to be enjoyed at this delightful place. Detailed information furnished upon application to PERCEVAL LOWELL, General Passenger Agent, C., B. & Q. R. R., Chicago, or M. L. ETTINGER, General Ticket Agent, C. & I. R. R., Rochelle, Ill.

THE new state house of Indiana is rapidly approaching completion. July 13 the statuary for one front was put in position. Near the top are four groups. That on the west end is composed of four figures, an Indian chief, a squaw with a papoose on her back, and a young boy. Next to it are the representatives of the industries of the state, a sturdy blacksmith surrounded by the appliances of his trade, a farmer with sickle and sheaf of oats at his feet. On the east extreme is the pioneer group, a father, mother and son, dressed in the habiliments of the early settlers of the state, and surrounded by the rude implements of those days—an old flint-lock rifle, etc. All these figures are of heroic size, so that from the street they appear to be of ordinary life size. The designs are strikingly appropriate and picturesque, and the work of the sculptor has been faithfully and

artistically done. Surmounting all these on an elevation at the extreme top of the wall is a large American eagle, eleven feet from tip to tip, cut out of stone and apparently screaming for liberty.

THE QUALITY OF TIN PLATES AGAIN.—In some editorial comments on the necessity of a reform in the manner of designating the value of roofing plates, which we addressed to architects and builders some months ago, we called special attention to the fact that the common method of specifying the quality of tin plate by box and brand afforded the purchaser no protection whatever against the dealer who might be disposed to fraudulently furnish light plates; and we called special attention to the fact that the only way by which to be assured that he is really getting the best plate for the money, is for the architect or builder to draw his specification so as to require the designation not only of the brand, but also of the weight of the plates to be furnished. In no other way will it be possible for the intending purchaser to know which of several bids is the lowest, material and coating being assumed to be the same. We published at that time, also, a circular-letter addressed to architects and builders by the well-known house of Merchant & Co., of Philadelphia, in which they declared that they had decided upon introducing this much-needed reform, by stamping each of their "Gilbertson's Old Method" plates not only with the name of the brand, but also with its thickness. Their circular also advises architects to specify plates stamped not only with the name of the brand, but also with the thickness, 1C or 1X, thus completely insuring that the specification will be properly carried out.—*The Manufacturer and Builder* (New York, July, 1886).

THE costly nature of a tin roof and the trouble, expense and damage likely to result in the employment of poor tin in its construction, lead us to call special attention to the necessity both on the part of the roofer, as well as the architect, builder or property owner for whom he is working, to secure the use of a thoroughly reliable tin plate. Messrs. N. G. Taylor Co., established in Philadelphia in 1810, have for ten years past been engaged in the importation specially for roofing purposes, of genuine "old style," hand dipped terne plate, which is of superior quality in sheet and coating. As the durability of a tin roof lies entirely in its non-corrosive coating, it can be readily seen how a tin plate in which the deficiency in coating is made up by the extra weight of iron, falls far behind the genuine "old style" tin plate. Besides this, it is evenly dipped, every plate is cut perfectly square, and every box packed is carefully assorted so that no defective sheets shall be sent out; all advantages that appeal to the roofer as well as to the architect, builder and property owner. Every sheet of the genuine "old style" tin plate sent out is stamped in one corner with the name, "old style," the trade mark, an arrow and target, and the name of the importers, and even after the roof has been painted this is dimly visible on the sheets. Purchasers can thus defend themselves against fraud, and by calling for the "old style" brand of terne plate in specifications and contracts, they will secure the best roof the manufacture affords. Various imitations of this famous tin are in the market from time to time, but the original importers, Messrs. N. G. Taylor Co., Philadelphia, always carry a supply on hand sufficient to meet all requirements, and will execute orders sent to them direct from their stores. Particulars as to prices and discounts being forwarded to dealers or roofers in any part of the country.—*New York Commercial World*.

THE necessity of establishing branches in Chicago for the purpose of meeting the demands of their extensive and growing western trade has been fully recognized by many of the leading eastern houses. The latest and most notable acquisition in this regard is the establishment of a branch house in Chicago by the well-known firm of Henry Huber & Company, of New York, manufacturers of specialties in sanitary and plumbing goods. They have taken the spacious premises, No. 82 Dearborn street, for that purpose. Mr. John L. Martin, a gentleman of large experience in the business, has been appointed as the local manager. Under his direction the place has been fitted up to meet all the requirements of the business, and to exhibit in actual working order the various lines of sanitary goods manufactured by Henry Huber & Company. Such judgment and good taste have been displayed in carrying out the work that the establishment will be one of the finest of the kind in the West. The front of the building is finished in peacock blue and gold, and presents an attractive and striking appearance. The floor is laid in Italian marble in diamonds of black and white. The walls will be finished in letter paper, the design being fine bronze background with a set buff figure. The dados, also of letter paper, are six feet high, being a beautiful design in blue and gold, and are surmounted by black walnut chair rail. The ceiling is also in letter paper, being what is known as the Morrison design, and presents a fine combination of colors in bronze, terra-cotta, and pale blue. The cornice is of papier mache in relief work of gold, with copper bronze molding. The center pieces are also finished in beautiful designs in papier mache to match the ceiling decoration. From these center pieces are suspended three chandeliers of rich design in antique brass. The side of the window recess is finished in lincrusta walton, and the window platforms are of Italian marble. The windows are of French plate-glass in single lights. The north wall of this elaborate showroom is finished in white marble to the height of eight feet. Along this wall are displayed in permanent position and in full working order, eighteen different styles of water-closets manufactured by Henry Huber & Company. These rest on a marble platform thirteen inches high, and over each is placed a water tank in black polished walnut. Near the entrance, and on the same side of the room is erected a three-fold wash basin, resting on marble base or platform and topped with marble slab, supported by three miniature pillows finished in nickelplate. These basins are known as Boyle's patent new departure valve basins. There are many other details worthy of mention, both in reference to the establishment and the goods exhibited which cannot be made in a brief notice. It is sufficient to say that it will be one of the most elegantly fitted up establishments of the kind to be found in this country either east or west, and will be a credit to the enterprising firm of Henry Huber & Company. A visit to it for personal inspection by architects and all others interested in sanitation, will be profitable to them.

An Interesting Visit.

BY ARCHITECT E. H. KETCHAM.

FINDING myself in New York, with a vacation upon my hands, and without having in view any definite objective point at which to spend it, I boarded one of the morning trains of the N. Y., N. H. & H. R. R. at the Grand Central depot, thinking that a few days might perhaps be spent pleasantly in visiting some of the old, and, to a Westerner, always interesting New England towns, where so many of our successful men received their early training, and from whom I had heard so much of the charms of their "down-east" homes.

The train, being an express, did not stop until it reached Stamford, when I was aroused from a pleasant day-dream by the voice of the train-boy calling, "Stamford, Stamford; twenty minutes for refreshments."

"Stamford"—the name sounded familiar. How did it become so? Being in need of no refreshment, except so far as my memory was concerned, I devoted my time to the solution of this question, for the lack of a more important subject of thought.

Hearing my name called, I turned, and was greeted with a very hearty hand shake from a fellow Chicagoan, whose presence at once brought to my mind the answer to my recent mental inquiry, the gentleman referred to being Mr. Wm. F. Donovan, the western manager of The Yale & Towne Manufacturing Company, the name of the company suggesting its usual accompaniment, Stamford, Connecticut.

Accepting Mr. Donovan's courteous invitation to visit the works of the company, which are located within a short distance of the station, we soon reached them.

Covering several acres of ground, the buildings are constructed entirely of brick, and are exclusively devoted to the company's business. The general offices, drafting room, etc., are located in the front corner building, which is fireproof. The other buildings include the brass and iron foundries, forges, chain shop, pattern and wood-working shop, machine shops, and shops for the manufacture of locks and hardware.

Upon entering the office, I was much impressed with its combination of attractiveness and convenience, the large main office being occupied by a large clerical force, while a number of smaller rooms are provided for the executive officers, where they can secure freedom from interruption.

The room of the president, Mr. Henry R. Towne, is a spacious and handsome apartment, containing a fine library of technical works, relating mostly to engineering, in which profession he is eminent. During my conversation with him, he referred with apparent pleasure to his recent visit to Chicago, where he presided at the spring meeting of the American Society of Mechanical Engineers, and to the generous hospitality shown to the eastern members who attended the meeting.

Under the guidance of Mr. Schuyler Merritt, the general manager of the company, I was shown the various departments of its immense business, the diversity and character of which requires a varied and exact knowledge, and a high degree of executive ability in its management, as will be evident from the following brief description.

After leaving the office, our first visit was to the testing machine department, where the famous Emery testing machines are built, and for which the inventor, Mr. Albert H. Emery, received from the American Academy of Arts and Sciences their "grand medal of honor" for the invention of the century "most conducive to human welfare," and received also the encomium of the highest engineering authorities throughout the world. After witnessing the marvelous delicacy and accuracy with which the seventy-five-ton testing machine, in the company's physical laboratory, performs its operations, and listening to a brief description of its construction, we proceeded to the crane-shop, where all kinds of hoisting machines are built, from the large, power, traveling cranes, for raising and transporting locomotives, to the light warehouse crane of one thousand pounds capacity. This shop is provided with every modern convenience and labor-saving device known to the mechanical world, as, indeed, are all the various departments which were visited.

In the bays, at either side, are located the heavy machine tools, while the intervening space of fifty feet is spanned by two large traveling cranes, with which loads of twenty-five tons are lifted and carried from one end of the building, three hundred feet in length, to the other, each crane being managed by a single operator, who stands upon a platform attached to the end of the cranes, and which travels with them, the various motions being imparted to the cranes by the movement of suitable levers. Power is transmitted to the cranes from a fixed shaft at one end of the building by means of a cotton rope.

From the crane shop, we proceeded to the chain and pulley-block shop, where the well-known Weston Differential hoist-blocks are made, as well as the chain for the various types of hoisting machines manufactured by the company. The rapid motions and skillful manipulation given to the iron by the chain-makers is a most interesting sight. No chain-making machines are used by the company, as there has not yet been a chain machine invented the product of which will stand the thorough tests which the company consider necessary before it can go upon the market with its guaranty.

The next places to be visited were the iron and brass foundries. In one department of the former the heavy crane castings are made, while in the other the small and delicate lock castings are produced. In the brass foundry, the castings for the internal parts of locks, the lock fronts, the small cabinet locks, and the time and dial locks, and the castings for door and window trimmings, as well as the metallic postoffice lock box frames and doors, are made.

Leaving the foundries, we passed into the postoffice shop, where post-office equipments of all kinds are constructed, from the little "fourth-class" cabinet, for use on the counter of a small country store, to the large equipment for government buildings. This shop is provided with wood-working machines of all descriptions, and with large erecting floors, upon which the complete postoffices are placed in position. In order to build a postoffice equipment, the company requires to know only the dimensions of the room

in which it is to be placed, and the probable number of boxes required. When the outfit reaches its destination, it can be placed in position within a few hours, however large it may be, and the postoffice opened for business. The work is shipped in sections, and requires no skill to erect it.

The time-lock and dial lock departments, came next in order, and after a brief examination of the various machines, their operation, and of the finished product, we proceeded to the shop where the door-locks, cabinet locks and hardware are made.

Your space will not permit of a general description of these, though such a description would, I am sure, exceedingly interest your readers. The admirable arrangement of the room, the expensive and intricate machinery and special tools, the many and varied processes through which each part of the lock passes before it reaches the assembling-room, and finally the inspecting-room; the large and interesting department of galvano-plastic manipulation, the pattern shop, and the thousand and one other things of interest, would occupy an entire issue of your paper without exhausting the subject.

Passing from these departments to the drafting-room, the system employed there was explained, and of which I took careful notes, and will make it the basis of another article in the near future, as it is the most complete and desirable system that I have ever seen, and will, I believe, be interesting to your architectural readers.

Upon visiting the stock and sample rooms, which came next in order, I was shown the extraordinary variety of work turned out by this company in its finished state. Most of your readers are familiar with some of this work in the form of "Yale Locks" and fine hardware, but to get anything like a complete idea of its variety and attractiveness, it is necessary to go through the experience which I am now relating. Boxes were uncovered, goods were unpacked, caps were taken off from the locks, and their internal mechanism explained, the thoroughness of the workmanship, the excellence of the designs, and their attractiveness fully displayed. Many of the designs are special, and are not shown in the company's catalogue, the company doing a large business in special work, the designs being furnished either by it or by outside designers and architects, the most of which, by special agreement, are never duplicated.

In discussing the general subject of locks and hardware with the gentlemen who accompanied me, after having congratulated them upon the prosperity and success which they had attained, they stated that they attributed it largely to the fact that they had always refused to comply with the demand for cheap, and, as a consequence, low-grade goods, preferring the steady progress, which they knew was to be obtained by turning out only first-class work, to the methods of those manufacturers whose only argument is the lowness of their prices, and believing also that a high reputation is more to be desired than immediate profit.

The subject of good hardware is one to which, until recently, very little attention has been given by those who have occasion to use it. This is particularly true of architects and house owners. Specifications have usually been written with some general phrase, such as "hardware to be of good quality." Under these conditions it has always been to the contractor's interest to furnish just as cheap goods as he thought would pass, and the result has been a constant pressure on dealers, and through them on manufacturers, for low prices. Most manufacturers have responded to this appeal by a steady deterioration in the quality of their work, until about the lowest depth in this direction has been reached.

"Yale Locks" and "Yale Hardware" are sold at prices which afford but a very reasonable profit to the manufacturers, although it is frequently the case that dealers, from interested motives, are disposed to represent that the prices of "Yale" work are very much higher in proportion to those of other manufacturers than they are in reality.

The truth is, that where other manufacturers attempt to approximate the excellence of "Yale" work, their prices are quite as high, and, in some cases, much higher than those of the Yale & Towne Company.

This company has never been content with achieved excellence, but has constantly endeavored, by experiment and improved methods, to improve its product in every way; that being its prime object, and the question of price being a later consideration. The most important result of this policy has been the invention of the corrugated key, which consists of the original plate key, altered simply by having its blade, or the portion which enters the lock, corrugated in longitudinal lines. The keyhole has a sinuous cross section conforming to that of the key, and it extends the entire length of the plug of the lock. When, therefore, the key is inserted in its place, it is supported throughout its entire length. But the most important result of the shape of this keyhole is that the picking of the lock is rendered very difficult, because a picking tool cannot even be inserted in the lock except with great difficulty. It is hazardous to assert that any key-lock is unpickable, but I am perfectly satisfied that the "Yale Lock," with corrugated key, is the most secure key-lock ever yet made.

The increasing sale of their "Yale Locks" demonstrated that a market existed for locks of the best quality, and also, by reason of the satisfaction which these locks gave to users, led to frequent requests from architects, owners and the trade for a line of locks for inside use, which, while not necessarily possessing that degree of security of the "Yale Locks," should be sufficiently secure and of equal quality of material and workmanship. This led to the production of "Standard Locks." The company seems to have carried out in the manufacture of this lock the same excellence in workmanship and design which has made its name famous throughout the world, while its perfect manufacturing facilities and large production enables it, as they assured me, to sell them at prices often lower than those of inferior goods, and always as low as it is possible to produce goods of similar grade.

After a short time spent in general conversation with the courteous officers of the company, and having thanked them for the attention shown me, I devoted the few remaining hours of my stay in Stamford to a drive around the town, which I found most enjoyable; the residences along the drives, and the grounds surrounding them, being exceedingly attractive, and in many cases magnificent.

INDUSTRIAL DEPARTMENT.

Modern Fireproofing.

FIREPROOFING with hollow, fireclay tile has in a decade, from a beginning as an almost unused and unappreciated system, increased in use and in value as a necessary structural part of a building, until all structures, except residences, are considered incomplete without a covering of all combustible parts with this non-combustible adjunct. While in Europe brick partitions and arches have always served as a protection against fire, and this method has been adopted in this country in the past, the immense cost and added weight has confined the attempt to render buildings fireproof to the most important public and private works. It remained for America and Chicago to demonstrate that a new and, in both a structural and protective sense, better material could be used. The pioneer in this new departure was a contractor named Johnson, who was the founder of what is now so universally known as the chief fireproofing company of the United States—the Pioneer Fireproof Construction Company of Chicago. Though the methods employed by Mr. Johnson were crude, they laid a foundation for all the future improvements in material and methods. Mr. E. V. Johnson, the secretary and general manager of the company, and son of its founder, has developed the system until floor arches of nine-foot span between iron girders, and but five inches rise, the covering of iron columns and wood joists, hollow partitions of from three to seven inches in thickness, and any number of special forms are made of hollow tile. Office buildings first received the necessary fireproofing, and as the structures increased in height and cost the fireproofing became more complete, then the attention of banks was called to the economy of building a complete fireproof building rather than depend on a small and often insufficient brick vault. Court houses and state buildings came next in order, the state house at Indianapolis fireproofed by this company being the most extensive and complete example of fireproofing ever erected, and now to build a structure of any importance without this guaranty against fire, stamps the owners, be they corporate or private, as not only reckless, but almost as criminally negligent as if the building was constructed with insufficient strength of foundation or walls. And this is as it should be. Iron is so easily destroyed by fire that it should be protected wherever it forms part of the structural support in a building, and the building ordinances should compel fireproof protection in the same way as the building of sufficient foundations and walls.

The work of the Pioneer Fireproof Construction Company has become known to every city of the West from Minnesota to Texas, and in Chicago such structures as the Pullman, Rialto, Rookery, Royal Insurance, Board of Trade, and other office buildings fireproofed by this company, and which from time to time have been visited by the architects who visit the city, have demonstrated their immense capacity for supplying and placing this material. The works of the company at Ottawa occupy seven acres, and fourteen immense kilns are in constant operation, comprising the most extensive works in this particular manufacture in the country. The yards of the company at Chicago, on Sixteenth and Clark streets, are also extensive, and an immense amount of hollow tile is stored here for immediate use.

A building well worth seeing is the company's offices at these yards. It is entirely composed of hollow tile, and shows the adaptability of this material for wall construction.

In literature but little yet exists upon practical hollow tile fireproofing. Many have written upon the subject theoretically, and have done much to call attention to the system. A treatise was published by the Pioneer Company a year ago, written by the manager, E. V. Johnson, which, with frequent illustrations, showed the purpose, scope and adaptability of hollow tile for fireproofing. In giving this to the architects, while doing so from trade motives, the company made a valuable contribution to the field of building literature.

Fireproofing should be insisted upon by architects in all large structures. When a knowledge of it is lacking, the architect can readily obtain the presence of Mr. Johnson, who will explain it to the inquiring owner, and in this way the future building will be more stable and the losses by fire materially decreased.

New Publications.

TO NIAGARA FALLS, ST. LAWRENCE RIVER, WHITE MOUNTAINS, THE HUDSON, AND THE SEA. Published by the Passenger Department of the Michigan Central Railway.

AMONG the many publications annually issued by the railroads of the country, describing the beauties of hill, river, lake and forest reached by their several routes none has appeared which so well deserves the praise for good taste and illustrative merit as this. Leaving the advertising of the route to be inferred rather than expressed, the author in his frontispiece seeks then to express in poetry the charm of such scenes as the volume beautifully illustrates, and invites the busy and enervated to leave work and care awhile, in these lines from the poet Motherwell:

They come! the merry summer months of beauty, song and flowers;
They come! the glad some months that bring thick leafiness to bowers.
Up, up, my heart, and walk abroad, fling care and care aside;
Seek silent hills, or rest thyself where peaceful waters glide;
Or, underneath the shadow cast of patriarchal tree,
Scan through its leaves the cloudless sky in rapt tranquility.

—William Motherwell.

Pursuing this descriptive and illumined invitation through pages and pages of colored etchings and engravings, the author takes the reader to the northern wilds of Mackinac island, northern lake Huron, to the Falls of Niagara, the White Mountains, Adirondack mountains and to the seaboard. The Canadian Pacific's delightful route, St. Thomas to Ottawa, Montreal and Quebec, is minutely described, and the delights of the Thousand Islands and the Lachine Rapids, all designed to induce the man of business

to leave the hot and crowded city and take not only himself, but his "sisters, cousins and aunts" and "all the children" away over the route described for a summer holiday, in which the small outlay in carfare will cover the best of medicine for the upbuilding of not alone the physical, but the mental and moral man, as no physician could. We say little about the typography of the work, though it is as fine a sample of the printer's art as can be produced, because it only aids in the mission of the work to place the attractions it describes in as advantageous a light as possible, knowing that after its contents are read and the trip taken, that its authors will for a year, at least, remain in the minds of the reader, and when the time for another trip comes it will require no such beautiful work as this to induce another trip from Chicago to the sea.

MR. RIPLEY HITCHCOCK, of New York, was recently commissioned by *The Century* to visit our western cities and report upon the art movement in progress there. The results of this visit are recorded in an illustrated paper in the August (midsummer) *Century*, from which we quote the following: "Eastern advantages are obvious enough, and yet if one cares to follow out comparisons it will be found that the activity represented in the building up of western art museums and schools during the last six years has had no counterpart in the East. Whatever gropings in the dark there may be for a time, this western art movement has gone far enough to insure certain definite results. The importance of art, however the word may be defined, has been publicly recognized. Art collections of various kinds are placed within the reach of the people at large. Facilities for education in art have become accessible. If there were nothing more than this, the results would represent at least an elevating influence. But this movement comes at a time when we are rapidly accepting the ideas that training of the hand should accompany training of the brain, and that educated application of art to industry is a valuable, economical end. England, Belgium, Germany, and France later, have learned the lesson, and the agents of even Russia are studying the museums and schools of applied art which are in every German city. In the fifteen years since Massachusetts took the hint from South Kensington and made drawing a part of her common-school curriculum, these ideas have taken shape in one way or another, west as well as east. All this has met with opposition, of course, as the Boston artists ridiculed the adoption of South Kensington theories and practices. Yet Massachusetts is now building an ampler home for her State Normal Art School, and her publicists in speeches and reports are demanding more popular education in art that the state may not lose her supremacy in the finer industries. The same demand is felt, and has been answered in a greater or less degree, in many of our cities. It is this demand based upon the practical value of art-training in industrial work which will broaden the usefulness of the western art museums and schools."

Inventive Genius in Building.

(Reported specially for THE INLAND ARCHITECT AND BUILDER, by Franklin H. Hough, solicitor of patents, 925 F street N.-W., Washington, D. C.)

- 342,426. Door-check. C. Cevor, Waco, Tex.
- 342,710. Door-hanger, sliding. C. C. Runyan, Mansfield, Ohio.
- 342,345. Water-proof covering for roofs. A. Ford, London, England.
- 342,649. Shingling-bracket. W. H. Smerdon, Taunton, Mass.
- 344,947. Clapboard marker. J. F. Beebe, Adair, Iowa.
- 344,821. Door check. W. W. English, Lincoln, Nebraska.
- 344,914. Door hanger. J. C. Keperle, St. Louis, Mo.
- 345,089. Roofing metal. W. W. Walter, Canton, Ohio.
- 345,001. Wall and ceiling, fireproof. J. Smith, Cleveland, Ohio.
- 345,451. Door check. H. A. Rost, Richmond, Indiana.
- 345,273. Sash fastener. J. F. Browne, Hyde Park, Illinois.
- 345,483. Sash fastener. M. F. Cole, Letts, Iowa.
- 345,400. Tile roofing. C. Weise, Dermbach, Germany.
- 345,894. Buildings, gutter for. J. Gray, Amelia, Ohio.
- 345,988. Doors, supporting device for. F. V. Phillips, Chicago, Illinois.
- 345,665. Sash holder. M. Bourke, Youngstown, Ohio.
- 345,857. Sashes, device for operating. G. W. Paine, Sullivan, Illinois.
- 346,220. Blind, window. C. W. Radford, Oshkosh, Wisconsin.
- 346,294. Door closer. N. Leidgen, Milwaukee, Wisconsin.
- 346,132. Door fastening. I. H. Congdon, Omaha, Nebraska.

Synopsis of Building News.

Abilene, Kan.—Architect Geo. W. Shaffer, of Emporia, reports: For Reformed Church, one story, brick building, 44 by 65 feet, cutstone trimmings; cost, \$5,500; foundation in. For Dr. E. E. Hazlett, two-story frame dwelling, 36 by 52 feet; cost, \$5,000; drawings under way. For David McCoy, two-story and basement, brick store and hotel building, 56 by 80 feet; cost, \$9,000; foundation in.

Atlanta, Ga.—Architect Gust. E. Leo reports: For L. De Give, improvements on opera house, cost \$7,000; under way. For B. F. Hill, Jr., addition to residence, cost \$3,000; under way.

Athens, Ga.—Architect W. W. Thomas reports: Outlook, not encouraging. There is much work being done in the way of improvements and additions to dwellings, and some business houses; but the following are the only buildings of a public nature now projected here: For the city, two two-story brick school-buildings, 60 by 57 feet, slate roofs; cost \$16,000; under way. W. B. McGinty, builder. For Athens Opera House Co., opera house; to cost \$25,000; projected, and work will probably commence in October.

Beardstown, Ill.—Architects Bullard & Bullard, of Springfield, report: For C. M. Spring, two-story frame dwelling, 30 by 51 feet, to cost \$3,500; drawings ready.

Birmingham, Ala.—Architect H. Wolters, of Louisville, Ky., reports: For Louisville & Nashville Railroad, union passenger depot, 50 by 215 feet, brick, stone and terra-cotta; cost, \$83,000; under roof. Chas. Pearce, of Indianapolis, Ind., contractor.

Bradford, Pa.—Architect C. H. Owsley, of Youngstown, Ohio, reports: Frame school house, 75 by 85 feet, slate roof, hot air heat; cost, \$14,000; projected.

Buffalo, N. Y.—Architects R. A. & L. Bethune report: Livery stable for Messrs. White Brothers; cost, \$10,000; contracts not yet awarded; building to be of brick, and located on Thirteenth street. Niagara street, brick shops for the Buffalo Hammer Company; cost, \$15,000; contractors, E. & J. Lannen and J. Hoffmeyer. They have also prepared plans for Police Station No. 8; cost, \$16,000; on William street; contracts not yet awarded.

Architects Swan & Falkner report: Jersey street, corner West avenue, brick residence; cost, \$8,000; owner, S. L. Mason; contractor, William Schumacher. Linwood avenue, frame residence; cost, \$4,500; owner, L. F. Messer; contractor, Emory Close.

Architect W. W. Carlin reports: Bouck avenue, frame residence; cost, \$5,000; owner, Byron P. Angell. Mr. Carlin has also prepared plans for a summer residence at Lake George, N. Y., for Mr. Monroe B. White, of this city; cost, about \$6,000. Also the plans for a residence at Elmira, N. Y.; cost, \$3,000; for E. J. Markham.

Carrollton, Ohio.—Architect L. B. Valk, of New York City, has prepared plans for the Presbyterian Society for a one-story church building, 32 by 58 feet, brick, slate roof, hardwood finish, stained glass, steam or furnace heat; cost \$3,200; under way; N. E. Wash, pastor; Bider & Deever, masons; James Daniels, carpenter.

Castleton, D. T.—Architect Geo. Hancock, of Fargo, reports: Stone Episcopal Church building, 24 by 75 feet; cost, \$5,000; under way; J. N. Milton, of Fargo, builder. This building is a gift to the city by Gen. G. W. Cass, now of New York City.

Cedar Rapids, Iowa.—Architect W. A. Fulkerson reports: The building season has been dull. Outlook for fall work is better. For Geo. Henderson, one-story frame cottage, 30 by 40 feet, under way; Mr. Hopkins, builder. For Craft's estate, brick store and office building, 40 by 80 feet; cost, \$15,000; under way; A. H. Connor, builder. For Wm. King, two-story brick store, 23 by 80 feet; cost, \$3,500; under way; A. H. Connor, builder. For Hon. S. Z. Dows, plans for steam heating, three-story building, 100 by 140 feet, projected. Also for a double house, projected. For B. F. Hinds, dwelling, 38 by 50 feet, projected.

Chicago, Ill.—Architect O. J. Pierce has made plans for an eight-story store building, 64 by 100 feet, to be erected on Fifth avenue, between Jackson and Quincy streets, for F. P. Owings. It is to be built of marble and greenstone. The style will be moresque, freely treated to adapt the building to its proposed use. The first story front will consist of three massive, polished semi-detached columns, and four polished piers, separating the four doors and two large plate glass windows. The second story will have two round windows, each 12 feet in diameter, and four windows with moresque heads, containing beveled plate glass transoms. The next three stories will be two continuous marble oriels, with bent plate glass in the flank windows, and four additional windows, and each story being differently treated in detail. In the sixth story will be four broad and eight narrow windows of moresque design, separated by moresque, mullion columns, carrying from their impost brackets supporting balconies in the seventh story. These balconies will be partly projecting and partly recessed, and surrounded by graceful gilt railings. Six slender, moresque columns carry the lines of support to the eighth story and will bear up the two broad, oriental arches and the carved frieze and cornice. The building will have vaults, steam heating, elevators, etc.; cost \$80,000.

Architects Thomas & Rodger report: For C. P. Thomas, three three-story stores and flats, 60 by 80 feet, on Cottage Grove avenue. Anderson pressed brick, terra-cotta trimmings; cost \$20,000; contracts not let. For Duncan McBean, two-story dwelling, 25 by 50 feet, at 3640 Prairie avenue, to be built of rock faced buff Bedford stone; cost \$10,000; under way; J. Bloomfield, mason; Wm. Mavor, carpenter. For Monroe & Bayne, four-story apartment building, corner La Salle avenue and Locust street, Anderson pressed brick, buff Bedford stone trimmings; cost \$40,000; Jas. Conley, mason; The C. J. L. Meyer & Sons Co., carpentry. For Mrs. Mary Pollard, four-story flat building, 25 by 80 feet, Anderson pressed brick, brownstone trimmings, corner of Lake avenue and Thirty-eighth street; cost \$10,000; under way; McDermott & O'Brien, masons; M. Raher, carpenter. For Mr. Mollan, two two-story dwellings, on Oakley avenue and Polk street, Anderson pressed brick, stone trimmings; cost \$10,000; Wm. Zuellsdorf, mason; Wartman Bros., carpenters. For Mr. White, three two-story dwellings, on Oakwood avenue near Forty-second street, pressed brick; cost \$12,000; contracts not let. For Dr. Almon Brooks, three three-story stores and dwellings, 68 by 80 feet, on Wabash avenue near Sixteenth street; cost \$30,000; John Angus, mason; Steinmetz & Eilenberger, carpenters; building under way. Completing three brownstone front houses on Grand boulevard near Forty-third street, for W. V. Lawrence, Esq., of Montreal, Canada. These houses are to be all finished in different kinds of hardwoods, triple landing stone steps, projecting porches, steam heat and every requisite of strictly first-class houses; cost of finishing \$25,000.

Architect F. B. Townsend reports: For J. L. Higgie, three-story stores and flats, 105 by 112 feet, corner Ogden avenue and Harrison street, pressed brick, Bedford stone trimmings, felt roof, iron channels, beams, etc., galvanized iron cornice, closets and bath, skylights, hardwood finish, bells and speaking tubes, marble mantels, dumb waiters; cost \$40,000. For W. S. Hall, block of one-story stores, 85 by 75 feet, corner of Taylor and Kendall streets, pressed brick, terra-cotta trimmings, felt roof, galvanized iron cornice, closets and bath, skylights; to be commenced at once; cost \$10,000.

Architect H. R. Wilson reports: For H. Davis, ten two-story dwellings, 220 by 46 feet, 817 to 839 Walnut street; Indiana pressed brick, Bedford stone trimmings, galvanized iron cornice, felt roof, skylights, closets and bath, stained glass, wood mantels, electric bells, speaking tubes; cost \$40,000; under way; day work. For T. C. Gregory, two-story residence, 36 by 60 feet, on South Park avenue, pressed brick, brownstone trimmings, felt roof, galvanized iron cornice, skylights, hardwood finish, wood mantels, closets and bath, electric bells, speaking tubes; cost \$35,000; contracts not let; to be commenced August 15.

Architects Edbrooke & Burnham report: For H. B. Owsley, two-story residence, 31 by 60 feet, on Ashland avenue near Adams street, buff Bedford stone front; cost \$15,000.

Architect August Bessler reports: For Chas. Lange, two-story and basement store building, 25 by 75 feet, Toledo pressed brick, stone trimmings; cost \$5,500; under way. For Jas. Schroeder, at Summit, Ill., two-story frame store building, 30 by 75 feet; cost \$3,500. For John S. Matson, three-story and basement and attic dwelling, 23 by 66 feet, corner O'Brien and Union streets; Indiana pressed brick, stone trimmings; cost \$6,000; under way. For J. W. Popp, three-story and basement store building, 25 by 75 feet, West Twelfth and Wood streets; Anderson pressed brick, stone trimmings; cost \$7,200; under way. For Hugh Burns, two-story flat building, 22 by 48 feet, Fourteenth street, near Blue Island avenue; Indiana pressed brick, stone trimmings; cost \$3,500; under way. For Mr. Muller, on Taylor street, between Ashland avenue and Laflin street, three-story flats, 21-6 by 56 feet; St. Louis pressed brick, Euclid stone trimmings, all modern improvements; cost \$5,000; projected.

Architect S. Linderoth reports: For Wm. Clancy, two-story flat building, 43 by 71 feet, on Armour, near Indiana street, Anderson pressed brick, terra-cotta trimmings, pine and hardwood finish; cost, \$8,500; under way; N. Hansen, mason; J. Collings, carpenter; Bowman Bros., plumbers. For H. A. Nelson, two-story residence, 21 by 50 feet, at 12 Otter street, frame, brick basement; cost, \$2,000; not let. For A. Laufermann, two-story residence, 26 by 68 feet, frame building, brick basement; cost, \$5,000; C. A. Levin, contractor. For J. Jensen, three-story and basement and attic store and flat building, 36 by 80 feet, corner of Division and Vedder streets, Anderson pressed brick, terra-cotta and Euclid stone trimmings, iron and plate glass store fronts; cost, \$15,350; under way; F. Nehls, mason; C. E. Carson, carpenter.

Columbus, Ohio.—Architects Kremer & Hart report: For Foster & Kinneer, store and office building, 63 by 112 feet, pressed brick, stone trimmings; cost, \$20,000; brick work nearly completed. For Louis Zettler, four-story store and flats, 35 by 62 feet; cost, \$8,000; foundation just finished. Also dwellings for Messrs. Jervais and Watson; cost, \$3,500, and \$2,100, respectively; both under roof. For Messrs. Kinneer & Foster, three-story brick building, 112 by 62-6 feet, Zanesville pressed brick, stone trimmings; cost \$25,000. For W. E. Horn, three-story store building, 42 by 112 feet, pressed brick, Berea stone trimmings; cost \$18,000. For Hon. Allen G. Thurman, three-story apartment building, 55 by 100 feet, pressed brick, Berea brownstone trimmings, iron, stained glass, etc.; cost \$20,000. For John Zettler, four-story store building, 35 by 62-6 feet, Zanesville pressed brick, Berea stone trimmings; cost \$10,000; all the above are under way.

Council Bluffs, Iowa.—The government building is nearly ready for the roof, towering far above the adjacent buildings. It has a fine appearance at this stage of the work.

The county court house is up to the second floor. The Episcopal Church is about completed; ready for occupancy, except the tower, which is roofed over where it emerges from the roof. The walls are of stone, the roof slate. The structure has a pretty effect. As to spires, they do not seem adapted to this locality; three other buildings in this city have the truncated appearance of this new church. Several years ago a spire blew down and demolished the church to which it belonged; the church was rebuilt, but not the spire. Since then a fine spire was built on one of our school houses. It was taken down by order of our school board a short time after the Kansas City disaster.

The Catholic Church foundation remains just as it was two years ago, with no prospect that any work will be done upon the church this season.

Our cannery factory is about ready for business. The main building is about 40 by 100, two stories high. Above a basement with other necessary buildings and sheds upon the grounds.

A new foundry building is under contract, to be put up this season, 40 by 150 feet, two stories; a wing, 40 by 60, one story.

The improvements upon our business street are small, one two-story brick cigar store, about 12 by 35 feet, and a double office building, about 24 by 16 feet, one story, without a prospect of anything else in the near future, as there are several vacant stores in

the center of the business part of the city. Several buildings contemplated last fall were not commenced this spring. No elaborate dwelling has been built here this season. There has, nevertheless, been erected a large number of smaller dwellings of a strictly utilitarian character, scattered through all the resident parts of the town.

Although the city seems to be taking a rest, so far as business houses and elaborate dwellings are concerned, it has not been idle, miles of paving has been done on our streets the last two years, sewers have been built and water service put into a majority of the dwelling houses since the water works was completed.

The greatest burden upon the property owners is the establishing of an extended and comprehensive system of grades, which, perhaps, ought to have been done before, rendering necessary the raising of all buildings on several streets and the filling of the lots and streets several feet. Several bluffs (some of them one hundred feet high) have been graded down to furnish the material for the filling, generally leaving valuable lots where they stood, which were too high to be utilized in their natural state.

Creston, Iowa.—We are informed that there will be no new depot erected for the C. B. & Q. R. R. at this place, as was recently reported by a contemporary.

Dallas, Tex.—Architect J. N. Clayton, of Galveston, reports: Plans prepared for an asylum building; cost, \$30,000; to be built of stone, with slate roof. The design is French Romanesque modernized.

Danville, Va.—We have been informed that Messrs. Ruffin, Blair & Dance propose to erect an opera house in this city. These gentlemen inform us that neither the plans, nor the architect have been decided on yet by them.

Davenport, Ia.—Architect J. W. Ross reports: For Louis Moser, frame dwelling; cost, \$1,500; under way; J. Eddy, builder.

Des Moines, Ia.—Architect A. M. Rouse reports: Business rather dull at present, prospects for fall are better. Have made plans for J. H. Woods for a residence; cost, about \$2,000. For John W. Rowen, frame dwelling; cost, about \$1,500. For J. C. Comstock, frame dwelling; cost, \$2,000; projected.

Detroit, Mich.—Present condition and outlook for building not at all bright. We no more than see one labor trouble settled, than something is the matter with another set of craftsmen, and so it has been until the "boom" for this season is given up. Permits were issued during June for new buildings; cost, \$460,214. For alterations, etc.; cost, \$46,026. Total, \$506,240.

Architects Mason & Rice report: For Trinity Parish, two-story parochial residence, 50 by 85 feet, brick and stone, slate roof; cost \$12,000; Dean Bros., builders. For Hammond, Standish & Co., remodeling old Mansfield market interior; cost \$7,000; R. Helson, contractor. For Y. M. C. A., four-story and basement building, 91 by 96 feet, pressed brick, brownstone trimmings, some of it richly carved. The roof is high, pitched with gables, through which rises a square tower with a dome-like roof; all slated. In style it is in the spirit of the Norman, modified. The special features of prominence are the large arched main entrance, and large bay window over the same. It is located at the corner of Grand River Avenue and Griswold street. The ground floor will be occupied by stores fronting on Grand River avenue. Main rooms of the Association are on the second floor, which has a long reception hall, graced with a large open fireplace. The office is raised off at one end, at the other is the main entrance to a hall seating about 1,000 persons. The assembly and reading-rooms, and secretary's office, are also on this floor, and can be thrown into a hall as occasion requires. On the third floor are parlors, library, dining-room, etc. The basement will be given up to a large gymnasium, with running track, bowling alley, swimming bath, etc.; cost of building complete \$60,000; under way; Topping & Fisher, masons; Nuppenan & Clark, carpenters.

Architects Hess & Raseman report: For Jos. Perrien, block of two two-story stores, 40 by 60 feet, brick, stone trimmings, gravel roof; cost \$6,650; Spitzley Bros., builders. For Charles Walumuth, two-story double dwelling, 40 by 60 feet, frame, shingle roof; cost \$4,000; Knapp & Boden, builders. For F. A. Hubel, two-story dwelling, 43 by 70 feet, brick, stone trimmings, slate roof; cost \$11,400; Patrick Dee, mason, H. George & Son, carpenters.

Architect A. E. French reports: For N. Coguard, two-story double dwelling, 44 by 50 feet, brick, stone trimmings, gravel roof; cost \$5,000; Stephens & Co., builders. For John Robinson, two-story dwelling, 24 by 70 feet, brick, stone trimmings, gravel roof; cost \$5,200; W. H. Tranes, builder.

Architect Peter Dedrichs reports: For Geo. H. Geies, three-story dwelling, 47 by 72 feet; also barn; brick, stone trimmings, slate roof; cost \$12,000; Spitzley Bros., builders.

Architects G. V. Smith & Son report: For Robert Morton, two-story brick building, 60 by 35 feet; cost \$3,000.

Arthur Yeomans is building a two-story factory building, 81 by 75 feet; cost \$5,000.

Contractor A. Chapaton, Jr., is building for himself a three-story dwelling, 42 by 126 feet, brick, stone trimmings, gravel roof; also a barn; cost \$8,000.

The board of police commissioners are to erect a three-story station, 36 by 50 feet, brick, stone trimmings, gravel roof; cost \$8,000.

DeLand, Ill.—Architect R. R. Meredith, of Monticello, has prepared plans for a two-story frame school building, 46 by 36 feet; cost \$3,000; contract let July 20.

East Minneapolis, Minn.—Architects J. T. Moulton & Son, of Chicago, Ill., report: Work on the \$1,500,000 bushel elevator for St. Anthony Elevator Co., previously reported. The building will be completed October 15, 1886.

Emporia, Kan.—Outlook is not encouraging. Dry weather has affected the prospects for fall business.

Architect Geo. W. Shaffer reports: For Lutheran Society, one-story stone church building, 54 by 70 feet; cost \$10,000; plans drawn. For D. W. Eastman, two-story frame, 32 by 48 feet; cost \$3,000; plans drawn.

Emporium, Pa.—Architect David K. Dean, of Erie, reports: For J. W. Walker, two-story brick store building, 50 by 85 feet; cost \$4,000; under way; day work.

Erie, Pa.—Architect David K. Dean reports: For J. W. Sands, three-story brick residence, 41 by 60 feet; cost \$8,000; under way; Wm. Ackerman, builder. For John Salzman, two-story frame residence, 35 by 50 feet; cost \$4,000; under way; McDonald Bros., builders. For Jos. McCarter, brick barn, 40 by 60 feet; cost \$3,000; under way; McDonald Bros., builders. For the Jarecki Manufacturing company's shops, to cover ground 330 by 330 feet; cost \$25,000; under way; Henry Shenk, builder.

Fargo, D. T.—The present state of the building trades is dull, but will be much more lively after harvest, which is always the case in this territory.

Architect George Hancock reports considerable work, but none in Fargo at present.

Faribault, Minn.—Architects M. Shire & Bro., of St. Paul, have prepared plans for a three-story and basement brick high-school building, 50 by 88 feet, pressed brick, Berea stone trimmings and basement, galvanized iron cornices, slate and tin roof. The Ruttan system of heating and ventilating and dry closets, hardwood finish and tiling, mantels, stained glass, sky lights, steam or hot air heat, etc.; cost \$28,000; to be completed December 1; O'Brien & O'Neil, masons; L. M. Emery, carpenter.

Findlay, Ohio.—The corner stone of the new court house of Hancock County (Frank O. Weary and Geo. W. Kramer, associate architects, Akron, O.) will be laid August 11, under the auspices of Canton Findlay, Patriarchs militant, I. O. O. F.

W. H. Canfield, contractor and builder reports: Have signed contract with the Columbia Glass company for the erection of the following buildings: Factory for thirteen-pot furnace, 75 by 75 feet; two-story building for Leers, 75 by 50 feet; three-story building for packing and shipping-rooms, 40 by 125 feet; to be built of brick and stone, gravel roof; cost \$17,000; Mr. Canfield is also the contractor for the court house.

Fort Smith, Ark.—Architects Reed & Wright report: Present condition good; few brick buildings under construction on account of scarcity of brick. For T. E. Phillips, one-story frame cottage, 33 by 40 feet; cost \$2,300; projected. For J. McCombs, one-story frame cottage, 28 by 30 feet; cost \$1,200; projected. For W. Johnson, two-story brick stable, 34 by 70 feet; cost \$6,000; under way; S. Robinson, builder. For Mrs. Duffer, two-story frame residence, 28 by 43 feet; cost \$3,700; under way; J. R. Stephens, builder. Also have charge of the construction of the government court house, postoffice and jail building now being erected; cost \$150,000.

Franklin, Pa.—Architect David K. Dean, of Erie, reports: For S. B. Plummer, three-story brick residence, 50 by 70 feet; cost \$15,000; under way; T. A. Dodd, builder.

Galveston, Tex.—Present condition good; outlook encouraging.

Architect N. J. Clayton, reports: Frame additions to insane asylum; cost \$3,000. For Mrs. O. Freybe, two-story brick building, asphalt and shell roof; cost \$13,000; under way. For J. P. Davie, two-story brick building, slate roof; cost \$10,000; under

way. Repairing and finishing; cost \$15,000; projected. For G. Seelegson, two-story frame, slate roof; cost \$15,000; projected. For R. V. Davidson, two-story frame, slate roof; cost \$8,000; projected. For A. Ferrier, frame cottage, slate roof; cost \$6,000; under way. For R. Weis, two-story frame, slate roof; cost \$6,000; projected. For J. M. Burroughs, two-story frame, slate roof; cost \$3,000; projected. For J. Z. H. Scott, two-story frame, slate roof; cost \$6,000; projected.

Goshen, Ind.—Architect Rev. J. N. Barnett has prepared plans for the English Lutheran Church, one-story brick building, 40 by 70 feet, two towers, galvanized iron cornice, stained glass, hardwood finish, hot air heat; cost about \$5,000; under way.

Hillsboro, Kan.—Geo. W. Shaffer, of Emporia, reports: Two-story frame school house, 44 by 50 feet; cost \$5,400; under way.

Huron, D. T.—Builders are fairly busy, workmen are too plenty, and prices being cut.

Architects Bingham & Clements, report: For Nash Bros., two-story brick building, 25 by 80 feet, tin roof; cost \$7,000; under way; Crandall Bros., builders. For Board of Education, two-story brick veneer addition to school building, 34 by 37 feet; cost \$2,700. For same, two-story brick school house, 50 by 75 feet; cost \$12,000; under way; J. Bloodgood, builder. For I. O. F., three-story brick store office and hall building, 50 by 80 feet; cost \$15,000; J. Bloodgood, builder. For Myers & Wright, store, office and city hall building, 90 by 90 feet, brick, asbestos roof; cost \$17,000; under way; Elliott, Mitchell & McMillan, contractors. For John Fisk, Jr., frame dwelling, 30 by 45 feet; cost \$5,000; under way; Vaughn & Mitchell, builders.

Jackson, Mich.—Architect Bradford L. Gilbert, of New York City, has prepared plans for Walter A. Bennett for a two-story frame residence, contracts will include closets and bath, stained glass, stable, elevator, steam or hot air heat, hardwood finish, tiling, wood mantels, dumb waiters, etc.; cost not estimated; building to be commenced during July.

Kane, Pa.—Architect David K. Dean, of Erie, reports: For James McDade, two-story brick veneer residence, 40 by 60 feet; cost \$6,000; also two-story brick store, 55 by 95 feet; cost \$4,000; under way; M. V. Vanattant, builder.

Little Rock, Ark.—Fred. J. H. Rickon, Superintendent of Public Buildings, reports: A good deal of small building going on, with fair outlook.

Contract has been let for the Board of Trade building to Messrs. Pettefer Bros., for \$18,678. It will be a three-story brick building, 50 by 140 feet, slate roof. The same firm have also the contract for repairing and remodeling Mrs. Lulu Krouse's Female College; \$5,000 is to be expended.

Louisville, Ky.—Architect H. Wolters, reports: For S. A. Hartwell, two-story brick residence, 30 by 80 feet, slate roof; cost \$6,000; under roof; Fichtner, builder. For P. B. Kate, two-story brick residence; cost \$10,000; not yet contracted. Also considerable work mentioned elsewhere in this issue.

Marshalltown, Iowa.—Architect J. G. Weatherby, reports: But little building going on, the only business block being erected is the I. O. O. F. Hall. It is a three-story brick building; J. G. Weatherby, builder. Foundations are being put in for a two-story brick veneered residence, 21 by 63 feet; cost \$1,800; for C. H. Plunkett.

Mayville, D. T.—Architect Geo. Hancock, of Fargo, reports: For Beidler & Robinson, two-story veneered office building, 25 by 60 feet; cost \$4,000; projected.

Minneapolis, Minn.—Building permits: E. S. Woodworth, two-story wooden dwelling, 1601 Linden avenue; \$5,000. E. B. Clement, two-story wooden dwelling, 1603 Linden avenue; \$5,000. Masonic Temple association, eight-story brick and stone building, Hennepin avenue and Sixth street \$200,000. Hall & Duca, one and one-third-story brick and stone planing mill; Sixth street and Third avenue, north; \$10,000. West & Stevens, two-story wooden dwellings, 3118 Bryant avenue, south; \$10,000. It is quiet in building circles at present. Prospects of a good business during the fall. Material of all kinds is cheap. Contractors are rather anxious for work, and competition is close.

Architect F. E. Read, reports: For J. A. McDowell, two-story brick stores and dwellings, 42 by 65 feet; cost \$6,000; completed; J. H. McClay, builder. For T. L. Ross, two-story frame dwelling, 31 by 60 feet; cost \$6,500; under way.

Architect W. H. Dennis, reports: For F. W. Foreman, residence, 30 by 60 feet; cost \$6,000; under way; Wolff & Sons, builders. For J. M. Grabill, addition to store, 22 by 41 feet; cost \$7,000; under way; Joe Mathews, builder. For W. B. Bushnell, residence, 36 by 66 feet; cost \$7,000; under way; day work. For J. G. Gluck, residence, 50 by 56 feet; cost \$12,000; under way; day work. For J. E. Keelyn, residence, 30 by 70 feet; cost \$7,000; under way; F. H. McClay, builder. For J. F. Newcomb, residence, 35 by 40 feet; cost \$4,000; under way. For H. L. Gordon, six-story office building, 76 by 157 feet; cost \$100,000; projected.

Milwaukee, Wis.—Four hundred masons and bricklayers who struck recently, causing an entire suspension of building operations in the city, returned to work today. The boss masons wanted the men to return to ten hours' work a day, while the journeymen made a counter-demand that the bosses sign an agreement to continue the eight-hour system for three years. The return of the men to work leaves matters as before, the eight-hour day continuing without any agreement as to when it shall cease.

Mobile, Ala.—Architect Jas. H. Hutchisson, reports: Present condition and outlook very good. Constant rains have considerably delayed numerous buildings in course of construction during the past month. For Dr. Wm. Master, two-story brick office and residence, 37 by 80 feet; galvanized iron cornice, tin roof; cost \$7,480; under way; Geo. H. Discher, builder. For Fred. Johnson, frame cottage, 35 by 58 feet; cost \$1,200; Olsen & Goff, builders. For Mrs. C. Nasano, new front to three-story brick; cost \$2,550; W. O. Pond & Son, builders. For A. F. Luling, repairs, etc.; cost \$5,000; taking bids. For S. J. Russell, one-story cottage, slate roof; cost \$3,500; taking bids. For M. Forcheimer, two-story brick store, 30 by 80 feet, slate roof, galvanized iron cornice; cost \$8,600; W. S. Foster & Rosette & Fincher, builders. For S. J. Russell, two-story frame residence, 25 by 60 feet, slate roof; cost \$2,850; Jno. P. Emrich & Son, builders. For George Fink, frame cottage; cost \$1,200. For Mat. Toomey, two-story brick store and residence, 40 by 80 feet, slate roof, galvanized iron cornice; cost \$4,600; preparing plans.

Mount Olive, Ill.—Architect C. F. May, of St. Louis, Mo., has prepared plans for a two-story brick school house, 65 by 70 feet, slate and gravel roof; cost \$7,000. John Homer, clerk of school board.

Architects Bullard & Bullard, of Springfield, report: For F. R. Fisher, two-story frame dwelling, 26 by 30 feet; cost \$1,800; drawings ready.

Moline, Ill.—The Baptist Society are about to commence the erection of a frame church building, 55 by 55 feet; cost \$6,000. J. C. H. Read, pastor.

Muskegon, Mich.—It has been decided to postpone the erection of the new depot for the Chicago and West Michigan Railroad Company at this point, for about three months.

Newbury, Mich.—Architect J. B. Sweet, of Marquette, has prepared plans for the Board of Education for a two-story frame school house containing six rooms, 27 by 30 feet; cost \$5,000; W. J. Power, builder.

New Orleans, La.—Outlook rather uncertain on account of depression in trade and crops.

Architect James Freret reports: For James McConnell, alterations, etc., to two-story dwelling, 23 by 90 feet; cost \$2,300. For Little Sisters of the Poor, brick chapel, workshop and laundry buildings; cost \$16,000; under way; Jas. Freret, builder. For John T. Gibbons, two-story frame dwelling 28 by 121 feet; cost \$10,000; under way; P. Burns, builder. For Mrs. M. A. Dickenson, two-story frame residence, 23 by 36 feet; cost \$4,100; P. Burns, builder. For Mrs. J. Bell, two double two-story frame dwellings, each pair 27 by 47 feet; cost \$3,000; H. Friedrichs, builder. For the Sugar Refining Co., frame building, 40 by 220 feet, at Franklin, La.; cost \$7,000; under way.

New Castle, Pa.—Architect S. W. Foulke reports: Building outlook for fall is very much brighter than three weeks ago. For Wm. Alexander, two two-story stores, 37 by 60 feet, brick, pressed brick front, terra-cotta trimmings; cost \$6,000; under way; Jesse Hamilton & Son, builders. For R. W. Cunningham, one brick dwelling, 33 by 60 feet; cost \$6,000; two brick dwellings, 24 by 61 feet; cost \$7,500; J. G. Weaver, builder. For C. C. Dickson, brick store, 18 by 110 feet; cost \$4,000; under way; Thomas Allen, builder. For Park Opera Co., converting rink into opera house, seating capacity 1,000; cost \$20,000; just completed; Stewart Bros., builders. For Thomas Phillips, two-story and attic brick dwelling, 48 by 60 feet, stone and terra-cotta trimmings; cost \$9,000; plans made; also several less important buildings, repairs, etc., aggregating \$23,490.

New Corporations.—The Anglo-American Portland Cement company, limited, of Chicago; capital stock, \$100,000; Samuel Lowden, Jesse D. Frost, Henry C. Berry, incorporators.

Norfolk, W. Va.—Architects J. T. Moulton & Son, of Chicago, Ill., report: For the Norfolk & Western Railroad Co. grain elevator, 60 by 87-6 feet, bins 36 feet deep, pile and stone foundation, 150,000 bushels storage capacity, with facilities for unloading cars at rate of 50 cars per 10 hours, and shipping to ocean vessels at the rate of 12,000 bushels per hour; also to unload grain from coast vessels at the rate of 5,000 bushels per hour. Work has just been started, building to be completed by November 15, 1886; cost, \$60,000; J. T. Moulton & Son, architects, contractors and builders.

Oberlin, Ohio.—Architects Weary & Kramer, of Akron, report: Preparing plans for Talcott cottage, three-story stone dormitory or ladies hall; cost \$60,000.

Oconomowoc, Wis.—Architect Geo. B. Ferry, of Milwaukee, has prepared plans for a two-story city hall building, 60 by 107 feet, to be built of brick and stone trimmed with red brick, galvanized iron cornices, iron channels, beams, etc., slate, tin, or iron roof; fireproofed, stained glass, hardwood finish, etc.; cost \$19,100; Jens Nelson, mason; Oliver Hansen, carpenter; building under way.

Omaha, Neb.—Architect Sidney Smith reports: Outlook good. Have plans for Mrs. R. G. Clarkson for three-story double frame residence, 39 by 70 feet; hardwood finish; cost \$12,000; contract not let. For H. T. Chase, three-story brick and stone tenement house, 36 by 132 feet; hardwood finish; cost \$25,000; contract let July 20. For I. Corbett, three-story brick and terra-cotta tenement house, 36 by 66 feet; hardwood finish, etc.; cost \$12,000; contract let July 20. For Park Building Association, seven frame cottages, 26 by 36 feet; cost \$1,700 each. For West Side Building Association, ten cottages, 26 by 38 feet; cost \$1,900 each.

Architect Clinton J. Warren, of Chicago, Ill., reports: For Geo. W. Masson, two-story and basement frame packing house, 100 by 100 feet; cost \$25,000.

Architect A. M. Rouse, of Des Moines, Iowa, reports: For L. J. Drake, frame residence, fourteen rooms; cost \$9,000; now finishing.

Architect B. A. Fowler reports: A very busy season. For Bella A. Polack, three brick tenements, 22 by 69 feet; cost \$21,000; under way. For V. G. Lantry, residence; cost \$6,000; under way. For L. H. Korty, residence; cost \$4,000; under way. For Frank E. Moore's residence; cost \$6,500; under way. For L. M. Bennett, residence; cost \$8,000; projected. For F. R. McConnell, residence; cost \$3,000; under way. For E. Rosewater, addition to residence; cost \$5,000; under way.

Opelousas, La.—Architect H. Wolters, of Louisville, Ky., reports: Two-story brick court house, 50 by 70 feet, slate roof; cost \$62,000.

Owensboro, Ky.—Architects Reid Bros., of Evansville, Ind., have prepared plans for the school board, of Owensboro, for a two-story brick school house, 111 by 66 feet, to be built of brick, trimmed with stone, slate roof; cost \$22,000; J. J. Williams, general contractor; to be commenced at once; hardwood finish, blackboards, slate mantels and closets will be wanted.

Pittsburgh, Pa.—Architect L. O. Dause reports: Building is picking up rapidly in this city, though we cannot expect a first-class year. Have just let contract for two brick houses for Mrs. E. L. Bailey, to Wm. Kerr's Sons; cost, \$14,000. Plans finished for two-story frame dwelling at Mount Dora, Fla., for Dr. O. W. Sadler; cost \$3,500.

Richmond, Va.—At present the outlook is not encouraging. Not much building going on, and a dull fall season is feared.

Architect B. J. Black reports: For Colonel John Murphy, extension, 26 by 40 feet, to three-story and basement brick hotel building, stock brick, iron and terra-cotta trimmings, slate mansard; cost \$8,000; under way; Fred Welty, builder.

River Falls, Wis.—Architect A. P. Wild has prepared plans for Messrs. Burnett & Pratt, for a one-story brick and stone building, 22 by 75 feet; cost \$1,700; building under way; Alf. Michael, contractor.

Rock Island, Ill.—Architect J. W. Ross, of Davenport, Iowa, reports: For School Board, two-story brick school building, slate roof, cost \$20,000; plans in preparation.

Salina, Kan.—Architects Bullard & Bullard, of Springfield, Ill., report: For J. B. Sturman, two-story frame dwelling, 24 by 26 feet; cost \$4,500; drawings under way.

Salt Lake City, Utah.—Architect Jno. H. Burton reports: For J. C. Conklin, three-story frame house, 45 by 50 feet, covered with redwood; cost \$13,000; G. Curley, mason; S. L. B. Co., carpenters. For J. L. Rawlins, two-story brick house, 32 by 45 feet; cost \$6,000; Geo. Curley, builder.

Signourney, Iowa.—Architect J. W. Ross, of Davenport, Iowa, reports: For School Board, two-story brick school house; cost \$15,000; under way; A. P. Swails, builder.

Springboro, Pa.—Architect David K. Dean, of Erie, reports: For Powell Bros., two-story frame residence, 50 by 60 feet, with wing, 20 by 40 feet; cost \$10,000; under way; day work.

Springfield, Mo.—Architects Reed & Wright, of Fort Smith, Ark., report: For N. M. Rountree, two-story frame residence, 36 by 60 feet; cost \$9,000; under way. For Chas. Keet, one-story frame dwelling, 33 by 38 feet; cost \$3,700; under way; Brinnell & Swenson, builders. For A. Otterson, one-story frame dwelling, 23 by 34 feet; cost \$1,900; projected. For T. J. Delany, one-story frame dwelling, 40 by 42 feet; cost \$7,000; projected.

Springfield, Ill.—Architects Bullard & Bullard report: For Miss Sue Cheney, two-story frame dwelling, 30 by 48 feet; cost \$3,000; drawings under way.

St. Paul, Minn.—Following building permits have been issued recently: E. L. Mabon, two-story, brick veneer, tenement block; cost \$12,000. Lyman D. Hodge, two-story frame dwelling; cost \$5,500. C. H. Bradbury, four two-story frame dwellings; cost \$14,000. Owen Thomas, three-story brick store building; cost \$12,000. Anthony Luchanek, four-story brick store and dwelling; cost \$4,500.

St. Louis, Mo.—The following building permits have been issued recently: Missouri Car and Foundry Company, iron-clad frame building, Main street, between Anna and Dorcas streets; cost \$8,000. Joseph Hackman, three-story brick dwelling, Cook avenue, between Spring and Vandeventer avenues; cost \$4,000. John Heusen, two-story brick dwelling, Evans avenue, between Grand and Spring avenues; cost \$2,500. Wm. T. Sherman, two-story brick stable, Bell street, between Ewing and Garrison avenues; cost \$2,000. Dr. Wm. C. Green, two-story brick dwelling, Vandeventer and Delmar avenues; cost \$7,500. Germania Turn Halle, two-story brick addition, Michigan avenue, between Robert and Nagel avenues; cost \$2,700. Joseph Frien, four adjoining brick dwellings, Cardinal avenue, between La Salle and Hickory streets; cost \$10,000. Gartside estate, seven adjoining brick dwellings, Ewing and Franklin avenues; cost \$24,000. August Beinke, two-story brick dwelling, Seventeenth street, between Madison and Mulvaney streets; cost \$6,500. Wm. C. Crawford, two-story brick dwelling, Slattery street, between North Market and Montgomery streets; cost \$2,500. W. L. McKenne, two adjoining brick dwellings, Montrose avenue, between Bernard and Adams streets; cost \$5,150. L. E. Roberts, three adjoining brick dwellings, O'Fallon street, between Eighth and Ninth streets; cost \$5,000.

Architect Fred. W. Falk reports: Business is slowly improving, but do not expect it will recover from the late strikes before next spring. For J. D. Healy, three two-story and mansard-stone fronts, 60 by 50 feet, composition roofs, hardwood finish, stained glass, seven closets each, electric bells, speaking tubes, four marble mantels each; cost \$10,000; under way; F. H. Gray & Bros., builders. For Mrs. C. Nolan, two-story stock, brick-front flats, 22 by 70 feet, bath, electric bells, etc.; cost \$4,000; under way; Hush & Clifford, builders. For Dr. W. R. Endris, two-story and attic, Queen Anne frame dwelling and office, ornamental shingle roof, steam heating, hardwood finish, stained glass, skylights, carved wood mantels, electric bells, burglar alarms, etc.; cost \$6,000; projected; contracts to be sub-let.

Terre Coupee, Ind.—Architects N. Weaver & Son, of Elkhart, report: For John T. Reynolds, brick veneered building, 45 by 60 feet, pressed brick, slate roof, furnace heat, hardwood finish; cost \$6,000; plans under way.

Toronto, Ontario.—It was decided by resolution adopted at the last meeting of the city council: "That the committee on property be instructed to report at as early a day as possible upon the estimated cost and the practicability of converting the present St. Lawrence Hall into a more commodious and suitable city hall, and the committee are hereby authorized to employ a competent architect for this purpose."

The advertisements sent out for a chief commissioner to take charge of the public works of the city brought responses from twenty-one parties residing in Canada, England and the United States, but the executive committee thought none of the applicants satisfactory, and it was resolved at the last meeting of the city council to advertise for new applicants.

Topeka, Kan.—Outlook is very encouraging. Architect Seymour Davis reports: For Ed. Bennett, two-story residence, 57 by 80 feet, molded brick, stone, and terra-cotta trimmings; cost \$20,000; under way; Henry Bennett, builder.

Trinidad, Col.—Architect Geo. W. Shaffer, of Emporia, Kan., reports: For Henry F. Moore, two-story and basement brick bank, hall and office building, 66 by 94 feet; cost \$15,000; plans in preparation.

Vincennes, Ind.—Architect H. Wolters, of Louisville, Ky., reports: Two-story and basement city hall building, 69 by 113 feet; basement, stone; superstructure, brick and terra-cotta; slate roof; cost \$50,000; Chas. Pearce, of Indianapolis, contractor.

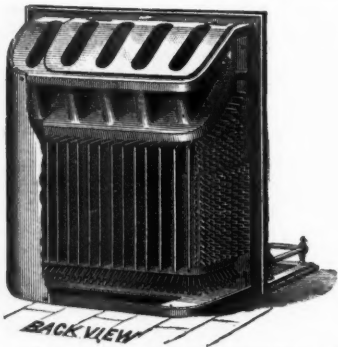
Wahpeton, Dak.—Architect Geo. Hancock, of Fargo, reports: For J. R. Burton, two-story frame house, 25 by 35 feet; cost \$3,000; W. G. Ladd, builder.

Warren, Ohio.—Architect C. H. Owsley, of Youngstown, reports: For W. Stile, two-story frame dwelling, 40 by 55 feet, hardwood finish, hot air heat, slate roof; cost \$4,500; projected. For T. W. Masters, two-story frame dwelling, 35 by 50 feet, hardwood finish, hot air heat, slate roof; cost \$3,000; projected.

Wichita, Kan.—Architect A. W. Rush, reports: For Moffit, Hartzel & Davis, three-story brick business building, 50 by 100 feet; cost \$10,000; nearly completed; J. McDougall, builder. For Wm. Heller, three-story brick business block, 50 by 100 feet; cost \$10,000; nearly completed; C. P. Smythe, builder. For A. W. Polk, two-story brick business block, 25 by 80 feet; cost \$4,000; G. Gribbs, builder. For Peter Gette, two-story brick building, 75 by 90 feet; cost \$5,000; under way; J. McDougall, builder. Also three-story brick business building, 50 by 100 feet; cost \$12,000; plans ready. For Wm. Gerffinstein, two and one-half-story frame residence, 52 by 84 feet; cost \$15,000; under way; John Sherwood, builder. For same, seven two-story frame dwellings; cost \$16,150; Benefield & Neild, builders. For D. L. Green, two-story frame dwelling, 36 by 40 feet; cost \$2,400; John Kimerle, builder. Also several smaller buildings, for different parties.

Youngstown, Ohio.—Architect C. H. Owsley reports: Present condition and outlook for building very good. For C. H. Andrews, three-story brick block, 80 by 100 feet, stone trimmings, tin roof; cost \$22,200; under way. For E. Mylott, two-story frame dwelling, 20 by 50 feet, slate roof; cost \$2,600; E. Mikesell, builder. For Second National Bank, three-story brick block, 45 by 136 feet, stone and terra-cotta trimmings, slate roof; cost \$30,000; projected.

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Bricklayer.....	\$3.00	3 hrs. 3.20	\$4.50	3.50	\$4.00	\$3.50	\$4.50	\$5.00	\$3.50	\$3.00	\$4.50	\$4.00	\$4.00	\$3.50	\$4.50	\$4.00	\$4.00	\$2.25
Brickmason (Front).....	3.00	8 hrs. 4.00	4.50	5.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.50	5.00	5.00	4.25	2.50
Carpenter.....	2.50	2 50@2.75	2.50	1.75@2.25	2.50	2.75	3.00	3.50	2.75	2.50	2.50@3.00	2.50	2.50	2.50	2.50	2.50	2.50	1.75
Cabinetmaker.....				1.75@2.25					3.00		2.50							
Finisher.....		3.00	3.00	1.00@1.75			3.00	4.00	3.00		3.00		2.75		2.75		2.25	
Gasfitter.....	3.50	2 50@3.00	3.25	2.00@3.00	3.00	3.50		8.00	5.00		3.00@4.00	3.00	3.00	2.50	3.50	2.25	2.75	
Laborer.....	1.25	1.60@1.76	1.50	1.50	1.50	1.75	1.25	2.50	1.50	1.00	1.75@2.00	1.50	1.25	1.60	1.25@1.50	1.25	1.50	1.00
Painter.....	2.00	2.25@2.50	2.50	1.50@2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50@3.00	3.00	2.50	2.75	2.50	2.50	2.50	1.75
Glazier.....	2.00			1.50@2.50	3.00	2.50		2.50	2.50		3.00	3.00	2.25		3.00	2.25	2.50	1.75
Plasterer.....	3.00	8 hrs. 3.50	3.50	3.25	3.00	3.00		4.00	4.00	2.25	4.00@4.50	2.66	3.00	3.00	4.50	4.00	2.50	1.75
Plumber.....	3.50	3 50@4.00	3.50	2.50@3.00	4.00	4.00		8.00	4.00		5.00	3.50	3.25		3.50	2.50	2.75	3.00
Stonemason.....	3.00	4.00	3.50	3.25	3.00	3.75		4.00	3.50		4.50@5.00	3.00	2.75	3.00	4.50	3.50	2.75	
Carver.....	5.00	4 50@5.00	5.50	5.00					4.00		5.00		4.00		3.00			
Stonecutter.....	3.50	3 75@4.00	3.50	3.50	2.75			9.00	4.00		5.00	3.50	3.00		4.00	4.00	3.00	
Stonesetter.....	3.00	4.00	4.00	3.50	3.50			5.00	4.00		4.00	4.00	3.50		4.00	4.00	2.75	
Roofer (Tin).....	2.75	2.75	2.75	1.25@2.25	2.75	3.00		3.00	2.50		2.50@3.00	3.00	2.50		2.50	2.50	2.25	2.00
Slaters.....	3.00	3.00	3.25	1.75	2.50	2.75		3.50	3.50		3.50	3.00	2.50		2.50@3.00	3.50	2.50	2.00
Stairbuilder.....	3.00	3 25@3.75	2.75	2.75@3.00	3.00	4.00		2.50	2.50		5.00	2.50	3.00	3.00	3.00	3.00	3.00	2.50
Steamfitter.....	3.50	3.50	2.50@2.50	5.00@3.00	3.50	3.50		8.00	3.50		4.00@5.00	2.50	2.75		3.50	2.50	2.50	3.00



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Tiffany 22 00 @ 30 00

(Quotations furnished by Lockwood & Kimball.)

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" " molded 65 00 @ 200 00
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" " molded 65 00 @ 200 00
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Milwaukee 25 00
Zanesville 100 00
" " enameled 85 00 @ 100 00
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" stock 17 00
Fire Brick 25 00 @ 30 00

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Wisconsin " 90 @ 1 00
Milwaukee, Utica, Louisville, Akron 1 00 @ 1 25
Portland 3 25 @ 3 50
Keene's coarse 7 50 @ 9 00
Keene's fine 11 00 @ 12 50
Plaster of Paris 2 00 @ 2 50
Hair (cattle), per bu. 20 @ 25
Hair (goat), per bu. 20 @ 25
Sand (lake shore), per yard 1 00 @ 1 25

STONE.

(Quotations furnished by J. S. F. Batchen.)

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Buff Bedford \$ 50
Blue Bedford 65
Hoosier deep blue Bedford 65
" buff " 50
Joliet 35 @ 50
Lemont 40 @ 50
Salem Oolitic 50
Foundation:
Dimension on dock 20 @ 25
Rubble, per cord 8 00
Sidewalk 40 @ 1 00
Planed 40 @ 1 00
Sandstone—Promiscuous blocks:
Hummelstown or Philadelphia Brown Stone 1 50
Brown Connecticut 1 50
Amherst 60 @ 75
Berea 55 @ 65
Potomac Red Sandstone 1 25
Carbondell 1 10
Malone Blue Euclid 55 @ 65
New York bluestone 1 35 @ 1 40

Marble:

Italian, veined 4 00
Tennessee, red 2 50 @ 5 00
Tennessee, Knoxville 3 00
Vermont, white 3 50 @ 8 00
Ophite 4 50 @ 5 00
Armodite 1 50

Slate:

Roofing, Vermont, per square:

Green 6 50
Purple 6 50
Red 13 50
Black, Lehigh 5 75 @ 6 75
Black, Chapman's 7 30 @ 8 00
Black, Bangor 5 50 @ 5 80

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Pine 10 50 @ 22 00

Framing Timber:

Pine 12 00 @ 17 00

Laths:

Pine 2 00

Shingles:

Pine (sawed) 2 40 @ 2 60

Miscellaneous:

Pickets, pine 9 @ 19

Posts, cedar:

Pine, yellow southern 28 00 @ 35 00

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(Quotations furnished by Holbrook Co.)

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" 1 1/2 and up 80 00 @ 100 00
Walnut, counter top 15 @ 20
Ash, 1st & 2d, 1 in. 30 00 @ 32 00
" 1 1/2 & up 33 00 @ 36 00
Ash Steps 40 00 @ 45 00
Maple, 1st & 2d, 1 in. 25 00 @ 35 00
" 1 1/2 & up 35 00 @ 40 00
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" 1 1/2 & up 35 00 @ 40 00
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" 1 1/2 & up 35 00 @ 40 00
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" 1 1/2, 1 3/4 & 2 in. 95 00 @ 100 00
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" 2 1/2, 3 & 4 in. 32 00 @ 38 00
Birch, red, 1st & 2d 35 00 @ 40 00
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" 1 1/2 & up 50 00 @ 55 00
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" 1 1/2 & up 35 00 @ 40 00

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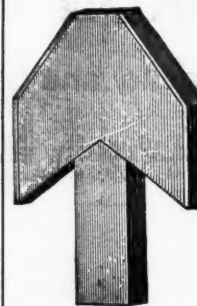
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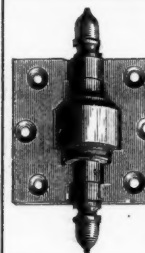
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Yellow, Chrome 18 @ 25
Green, Chrome 12 @ 20
Green, Paris 20 @ 35
Black, lamp 8 @ 30
Blue, ultramarine 16 @ 35
Putty 3
Whiting (dry) 1 @ 2
Paris white (English) 2 @ 3
Litharge (American) 6 @ 10
Sienna, burnt 9 @ 16
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Oil, linseed (raw), per gal. 42
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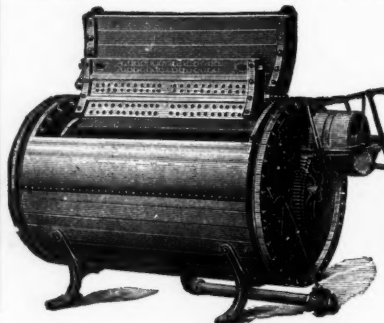
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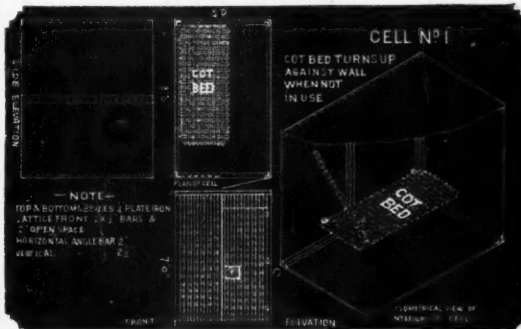
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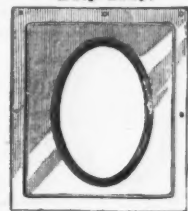
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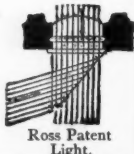
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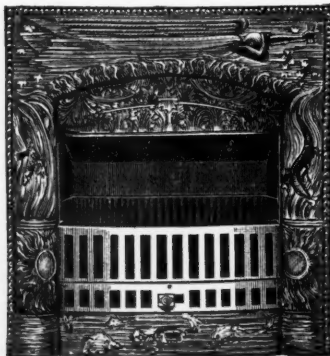
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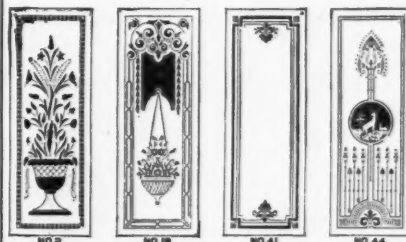
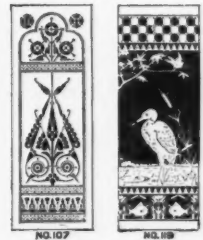
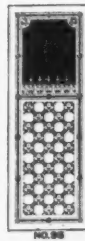
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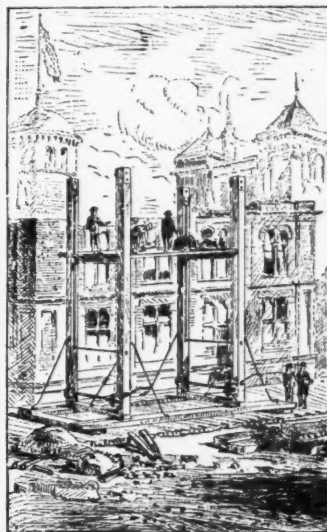
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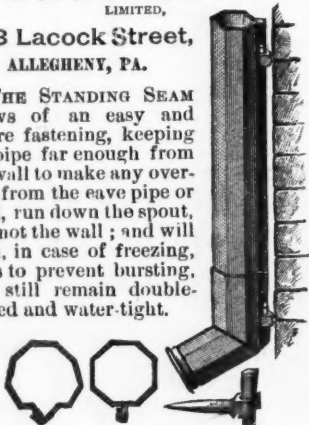
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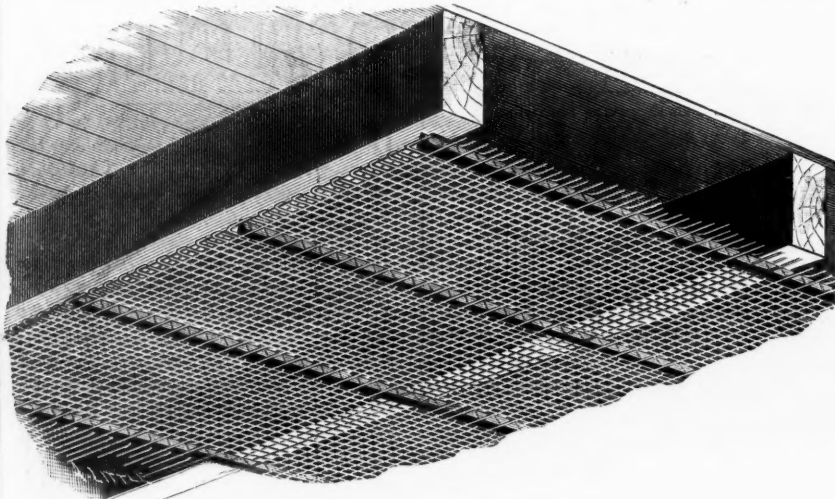
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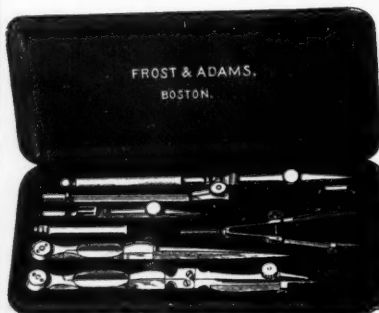
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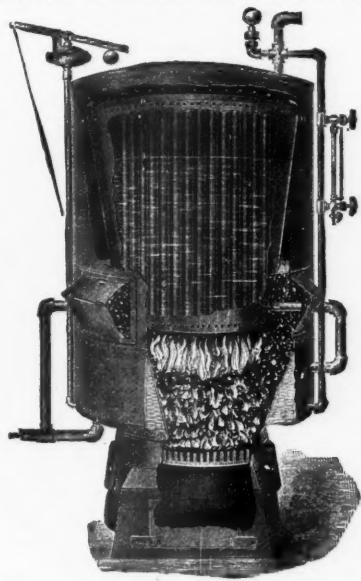
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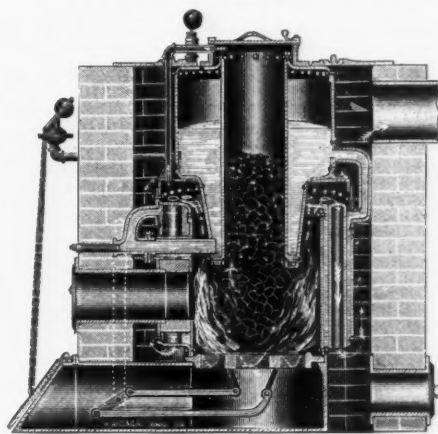
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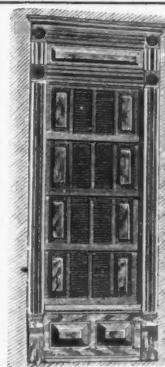
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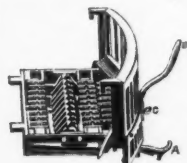
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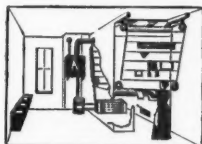
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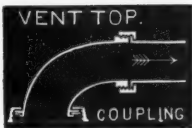
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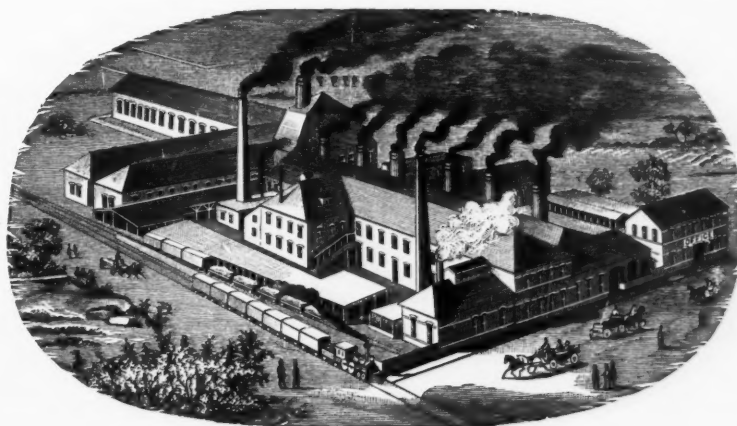
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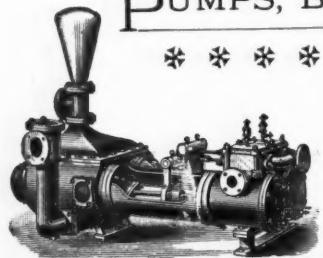
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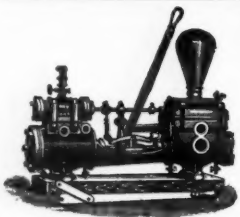
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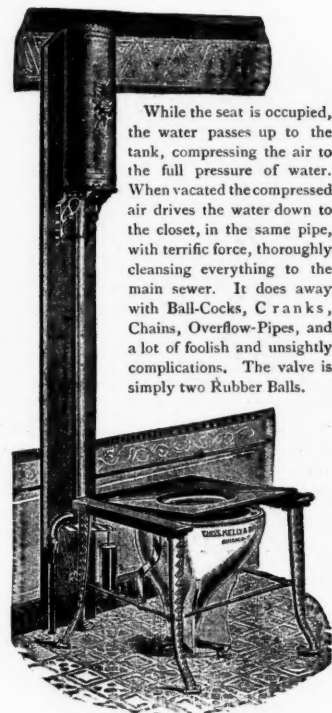


FIG. 3.

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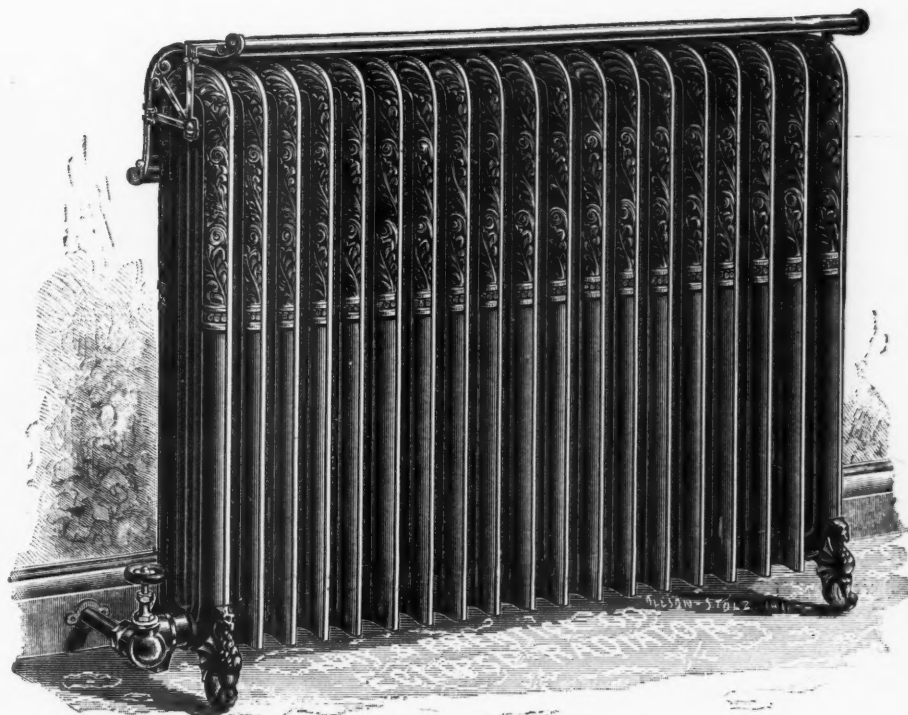
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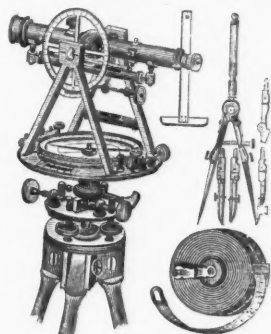
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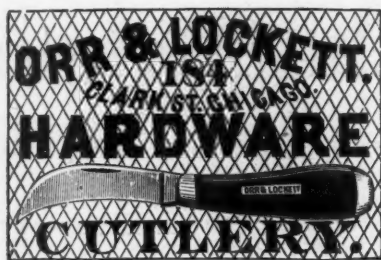
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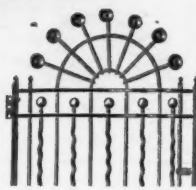
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Topeka, Kan.—Outlook is very encouraging. Architect Seymour Davis reports: For Ed. Bennett, two-story residence, 57 by 80 feet, molded brick, stone, and terra-cotta trimmings; cost \$20,000; under way; Henry Bennett, builder.

Trinidad, Col.—Architect Geo. W. Shaffer, of Emporia, Kan., reports: For Henry F. Moore, two-story and basement brick bank, hall and office building, 66 by 94 feet; cost \$15,000; plans in preparation.

Vincennes, Ind.—Architect H. Wolters, of Louisville, Ky., reports: Two-story and basement city hall building, 69 by 113 feet; basement, stone; superstructure, brick and terra-cotta; slate roof; cost \$50,000; Chas. Pearce, of Indianapolis, contractor.

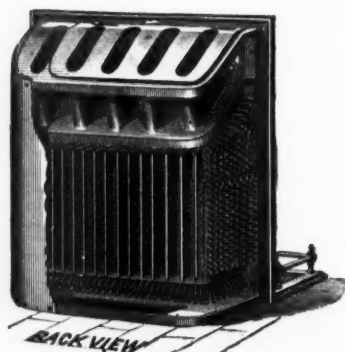
Wahpeton, Dak.—Architect Geo. Hancock, of Fargo, reports: For J. R. Burton, two-story frame house, 25 by 35 feet; cost \$3,000; W. G. Ladd, builder.

Warren, Ohio.—Architect C. H. Owsley, of Youngstown, reports: For W. Stile, two-story frame dwelling, 40 by 55 feet, hardwood finish, hot air heat, slate roof; cost \$4,500; projected. For T. W. Masters, two-story frame dwelling, 35 by 50 feet, hardwood finish, hot air heat, slate roof; cost \$3,000; projected.

Wichita, Kan.—Architect A. W. Rush, reports: For Moffit, Hartzel & Davis, three-story brick business building, 50 by 100 feet; cost \$10,000; nearly completed; J. McDougall, builder. For Wm. Heller, three-story brick business block, 50 by 100 feet; cost \$10,000; nearly completed; C. P. Smythe, builder. For A. W. Polk, two-story brick business block, 25 by 80 feet; cost \$4,000; G. Gribbs, builder. For Peter Gette, two-story brick building, 75 by 90 feet; cost \$5,000; under way; J. McDougall, builder. Also three-story brick business building, 50 by 100 feet; cost \$12,000; plans ready. For Wm. Gerffinstein, two and one-half-story frame residence, 52 by 84 feet; cost \$15,000; under way; John Sherwood, builder. For same, seven two-story frame dwellings; cost \$16,150; Benfield & Neild, builders. For D. L. Green, two-story frame dwelling, 36 by 40 feet; cost \$2,400; John Kimerle, builder. Also several smaller buildings, for different parties.

Youngstown, Ohio.—Architect C. H. Owsley reports: Present condition and outlook for building very good. For C. H. Andrews, three-story brick block, 80 by 100 feet, stone trimmings, tin roof; cost \$22,000; under way. For E. Mylott, two-story frame dwelling, 20 by 50 feet, slate roof; cost \$2,600; E. Mikesall, builder. For Second National Bank, three-story brick block, 45 by 136 feet, stone and terra-cotta trimmings, slate roof; cost \$30,000; projected.

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Bricklayer.....	\$3 00	8 hrs. 3 20	\$4 50	3 50	\$4 00	\$3 50	\$4 50	\$5 00	\$3 50	\$3 00	\$4 50	\$4 00	\$4 00	\$3 50	\$4 50	\$4 00	\$4 00	\$2 25
Brickmason (Front).....	3 00	8 hrs. 4 00	4 50	5 00	4 00	4 00	5 00	5 00	5 00	5 00	5 00	5 00	4 00	4 50	5 00	5 00	4 25	2 50
Carpenter.....	2 50	2 50@2 75	2 50	1 75@2 25	2 50	2 75	3 00	3 50	2 75	2 50	2 50@3 00	2 50	2 25	2 50	2 40	2 50	2 50	1 75
Cabinetmaker.....	.....	.....	.....	1 75@2 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 50	.....	2 25	.....
Finisher.....	.....	3 00	3 00	1 00@1 75	.....	.....	3 00	4 00	3 00	.....	.....	.....	.....	.....	2 75	.....	.....	.....
Gasfitter.....	3 50	2 50@3 00	3 25	2 00@3 00	3 00	3 50	.....	5 00	5 00	.....	3 00@4 00	3 00	3 00	2 75	3 50	2 25	2 75	.....
Laborer.....	1 25	1 60@1 75	1 50	1 50	1 50	1 75	1 25	2 50	1 50	1 00	1 75@2 00	1 50	1 25	1 60	25@1 50	1 50	1 25	1 00
Painter.....	2 00	2 25@2 50	2 50	1 50@2 50	2 50	2 50	.....	2 50	2 50	2 50	2 50@3 00	3 00	2 00	2 75	2 50	2 25	2 50	1 75
Glazier.....	2 00	.....	.....	1 50@2 50	3 00	2 50	.....	2 50	2 50	.....	3 00	3 00	2 25	.....	3 00	2 25	2 50	1 75
Plasterer.....	3 00	8 hrs. 3 50	3 50	3 25	3 00	3 00	.....	4 00	4 00	2 25	4 00@4 50	2 66	3 00	3 00	4 50	4 00	2 50	1 75
Plumber.....	3 50	3 50@4 00	3 50	2 50@3 00	4 00	4 00	.....	8 00	4 00	.....	5 00	3 50	3 25	.....	3 50	2 50	2 75	3 00
Stonemason.....	3 00	4 00	3 50	3 25	3 00	3 75	.....	4 50	3 50	.....	4 50@5 00	3 00	2 75	3 00	4 00	3 50	2 75	.....
Carver.....	5 00	4 50@5 00	5 50	5 00	.....	.....	.....	.....	4 00	.....	5 00	.....	4 00	.....	3 00	.....	.....	.....
Stonecutter.....	3 50	3 75@4 00	3 50	3 50	2 75	.....	.....	9 00	4 00	.....	5 00	3 50	3 00	.....	4 00	4 00	3 00	.....
Stonesetter.....	3 00	4 00	4 00	3 50	3 50	.....	.....	5 00	4 00	.....	4 00	4 00	.....	.....	4 00	4 00	2 75	.....
Roofer (Tin).....	2 75	2 75	2 75	1 25@2 25	2 75	3 00	.....	3 00	2 50	.....	2 50@3 00	2 50	2 25	.....	2 50	2 50	2 25	2 00
Slater.....	3 00	3 00	3 25	1 75	2 50	2 75	.....	3 50	.....	.....	.....	3 00	2 50	.....	2 50@3 00	3 50	2 50	2 00
Stairbuilder.....	3 00	3 25@3 75	2 75	2 75@3 00	3 00	4 00	.....	2 50	.....	.....	5 00	2 50	3 00	3 00	3 00	3 00	3 00	2 50
Steamfitter.....	3 50	3 50	2 50	2 50@3 00	3 50	3 50		8 00	3 50		4 00@5 00	2 50	2 75		3 50	2 50	2 50	2 00



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