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THE INLAND ARCHITECT AND BUILDER

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WE are glad to receive the information, and from an authoritative source, that the recently appointed supervising architect is at the outset trying to bring to the office the practical business ability, as well as architectural skill, of which it has so much need, and of which there has been such an apparent absence in the past; and the result is that contractors are once more willing to figure on government work, feeling that the supervising architect is both practical and honest, and that their bids will receive the attention they warrant. It is no small compliment to the profession in the West that one of their number has not only received the appointment, but is acceptably filling so important an office.

THE question of high buildings is being agitated with a view of their limitation. The reasons given why their height should be limited are that they are dangerous to life and because they tend toward shading the neighboring buildings so effectually as to make them dark, damp and undesirable. While the demand for extremely high office-buildings is of recent birth and of limited growth, the inclination is sufficiently apparent to alarm those who have the future welfare of the people in mind, and in Chicago the agitation has taken the shape of an ordinance calling for their restriction, being introduced by a prominent alderman, supported by the Citizens' Association. Although the "fire" aspect of the case is that which most attracts the attention of this committee in their report, we are inclined to give the greater consideration to the feature of "too much shade," as Chicago is rich in architects who can plan, builders who are thoroughly competent to construct, and fireproof materials and devices that are incomparable for the thorough fireproofing of any structure that may be projected. It would be well, perhaps, to frame an ordinance preventing the erection of combustible buildings, but partitions can be made of tile, ceilings and roofs covered with it, stairways protected by a combination of plaster and iron cheaply and perfectly; and those who build for permanency, whether a building be four stories or fourteen, should build in this way as a matter of stability, which is economy. But the question has a serious side, and one that does not come before the architect to decide, except as he is ambitious for the future of his city, or perhaps as he sees it is liable to affect the pockets of capitalists in the future and so give him less work to do than otherwise. It does affect the property owners. "Who runs may read," that two years ago a seven-story building was thought immensely high in Chicago till an eight-story block was built, and when a year ago the nine-story Montauk block was built it was thought the limit was reached. Then the Pullman building, with its ten stories, was built, and now others of greater height are projected. The effect will be, as it is already becoming felt in the East, that the upper floors, either in residence flats or office structures, are the more desirable; and as stories are added to the top, rents will decrease at the bottom, because the surrounding buildings will shut out the direct or the reflected light of the sky. But this consideration is apparently one of the future, as it will be many years before the demand for high buildings in Chicago will be such as to make them so numerous as to be objectionable. Meanwhile let the citizens' committee and the city authorities see that high buildings are constructed thoroughly fireproof, and not, at the present stage of building operations, seek to limit the enterprise of capitalists and check our city's growth.

IN Europe, the progress of electric lighting is making far more rapid headway than in this country. In the larger and principal cities, all the public buildings, theatres and opera houses are thus lighted, and a notable fact is that all wires for conveying electric currents are placed underground. Wires in the air, as they are seen everywhere in this country, and especially in our cities, where in many places they are so numerous as to almost shut out the sunlight and resemble a huge rat-trap suspended, are not tolerated in any cities on the continent; they are all placed underground. One or two cities, like Antwerp and Brussels, have allowed a few wires in the air as an experiment, and also Amsterdam and Venice,

where the soil is peculiarly damp and bad. A correspondent of the New York *Tribune* says: "Generally speaking, a European architect, who usually has charge of a building as long as it stands, hates the sight of a wire on a roof, and prevents it if he can. The architect thus in charge of the Louvre refused to allow an experimental wire to cross that half-mile of splendor, even to oblige the Government of the Republic." The architect was right. It is a pity architects in this country are not granted the same authority.

A RECENT decision of the Supreme Court of Nebraska is of special interest to builders. S. sued B. for \$492.60, the balance due him for building a two-story brick house, and B. made a counter-claim for defective material thrown out and money expended in repairing the unskillful work of S. The contract price was \$2,535, and the plaintiff paid \$2,042.40; the counter-claim was \$1,985, for which the defendant got judgment. The defense to the counter-claim was a most novel one, viz: that the defendant had "no experience in laying foundations, as the defendants knew." The case, *Sherman vs. Bates*, was carried to the Supreme Court, where the judgment was affirmed. Judge Maxwell, in the opinion, said: "A party entering into a contract to construct a building thereby agrees that all parts of the structure shall be put up according to the agreement. As a defense to inferior workmanship he cannot say: 'I am not a mason, or carpenter, or tinsmith; therefore I am not liable for defects caused by unskillful or careless workmen.' The question is not one of skill on the part of the contractor, but of compliance with the contract." - If a contractor agrees to erect a building in a certain manner, he must comply with the agreement, and no plea of a lack of skill, of himself or any of his workmen or sub-contractors, will constitute a defense for a failure to comply with the contract.

A SINGLE line told the whole story. It read: "The fire originated from a defective flue." It was truly a magnificent residence; elegantly and expensively furnished; costly paintings adorned its handsome walls, while works of art and a costly collection of bric-a-brac were to be seen in nearly every room; the library was large and replete with choice standard works, which it had taken years to accumulate; in fact, everything afforded the most ample evidence that this home was the abode of refinement, contentment and wealth. It occupied a commanding site in one of the most prosperous and flourishing cities in the West, and excited the envy and admiration of everyone who passed it. Its architectural beauty and finish was a matter of note far and wide. Its possessor could not be otherwise than happy in the acquisition of such a home, the reward of many long years of patient, frugal industry. This is one picture, and its existence was a reality only a few weeks ago. Today all that is left of it is a blackened heap of ruins to mark the spot where it once stood. At an early morning hour the defective flue got in its fiendish work and wiped the whole structure, with all its precious contents of comfort, art and luxury, out of existence. A few months ago, another and even more costly and luxurious home adorned one of the most famous and picturesque sites on the Hudson river. It contained within its walls oil paintings alone valued at over \$150,000, to say nothing of many other articles of almost priceless value to the owner, including furniture, statuary, etc., all in keeping with the magnificent surroundings. Just as the early frosts had touched the leaves of the grand old trees that surrounded this lovely homestead, and imparted to the natural scenery round about hues of the richest splendor, the entire aggregation of wealth in that

architectural pile passed quickly away in smoky carbon. It was simply another sad sequel to a defective flue. Only a spark, perhaps, had found its way through a fatal crevice in the chimney, but proved quite as effective in its smouldering force as if the building had been lighted with a blazing torch. And now comes the news that the beautiful little city of Allegan, Mich., one of the most flourishing of her inland cities, has lost its entire business quarter by a fire originating in a defective flue. Surely some one must be responsible for these fatal defects in flues by which so much property is annually lost and so much sorrow and suffering entailed. In the construction of flues the builder cannot exercise too much vigilance and care. Careless workmen should be closely watched, or, what is better, they should not be employed on work which requires the greatest skill and the most vigilant attention. Every man who intends to build him a home should consult with his architect, particularly on this most essential point, and exact from the builder the most perfect work in the construction of every flue.

IN times of financial depression, the great iron industries of the country are among the first to suffer. When times are prosperous and money is seeking investment at low rates of interest at the leading financial centers, the business interests of the country are pushed along under high pressure; railroad lines are projected and rapidly built; building enterprises are undertaken demanding large capital, and pressed to completion with all the energy builders and capitalists can command; in a word, everything is borne along on a current of hope and bright expectancy. Iron, as the basis of all our industries, shares largely in the benefits of flush times; but let a reverse follow, and the mercury itself is not more sensitive to heat and cold than is iron to financial depression. When railroad progress is impeded iron gets the first blow, and it is nearly always a severe one. Iron enters so largely into almost everything constructed by man, that its value is an indication of the financial and industrial situation. It is therefore an indication that the worst of the present financial depression has passed when some of the great ironmills east and west are resuming operations, and others are preparing to set their machinery in motion.

THE excavation for the foundations of the five-story office building being erected on the corner of Canal and Madison streets, for Mr. O. A. Crary, by architect John M. Van Osdel, is completed, and the building will be rapidly pushed. This building is the pioneer of a grand move that will be inaugurated upon the west side this season, and one of the most important our city has seen. The neighborhood of Canal and Madison streets is built up almost wholly with old dilapidated frame fire-traps, and these will be torn down and give place to buildings that will be a credit to the city. These frame buildings are a continual menace to the west side, and it is only because of the superior excellence of the Chicago fire department that a conflagration (the extent of which, should it once get started, could hardly be estimated) has not occurred long since. The lot upon which the Crary block is to be erected was cleared of one of these frame shells, but the lot next it is still encumbered with one that would disgrace a "deserted village," and should be condemned and pulled down by the city authorities. The rise in values in real estate around the Board of Trade building has drawn much attention in that direction, but capitalists are beginning to find out that as important a building district lies in that portion of the west side bordering on the streets near the river, the future hardware and machinery center of Chicago.

BUILDING in all its branches has seldom been as brisk or the season's activity so pronounced at this period of the year in Chicago as it is now, and there is no probability of a setback from any cause whatever, though rumor, that fruitful source of mischief, through the agency of a writer for a leading daily, recently threatened the season's building with a serious check, if not disaster, by making a statement which, had it not been directly contradicted by interviews with leading brickmakers, might have caused the very stoppage to contracts that the writer seemed to think imminent. We can state with the authority of a perfect knowledge of the case warrants that there is no panic or chance for a panic in the brick market. The facts are that last fall, though the season closed early, \$80,000,000 of common brick were in stock, but so great has been the demand that almost every brick in all the Chicago yards, and the city is circled with them, has been sold, and that without advancing the price from the fall rate. Another false impression, spread abroad in the manner stated, is that the Brickmakers' Association regulate the price of brick, while the province of that body is simply to regulate the affairs of the association, leaving the price of material to be regulated by the firms handling the brick, and the contractors, understanding this, figure accordingly. The yards will commence work as soon as weather will permit, and by May 15 new brick will be available in any quantity at \$7.50 to \$8 per thousand. There are but one or two large firms in Chicago with facilities for making common brick throughout the winter, and they have orders for all they can produce in two months. Brick can be obtained in Milwaukee for about \$8 per thousand, and the cost of transportation would be about \$2. Chester, Illinois, is another source of supply, but builders generally will wait for new brick rather than go to the extra expense that the buying of brick at distant points would involve. Meanwhile there will be no "panic," no stoppage of work. Contracts will be let, excavations and basement walls will be prepared, and the brick, except in some pressing cases, will not be missed. It should be distinctly understood that there is no such thing as a "corner" possible in the way brick-making and selling is conducted in Chicago at the present time, and the only possible check the building interest can receive, as far as human foresight can forecast, is through the ignorant or willful misrepresentations of those who write, and the daily papers who publish, such erroneous and justly censurable reports.

ASBESTOS is becoming a valuable and much used mineral. It has been lately discovered, in its purest form, in lower Canada, and the quantity is said to be practically without limit. The fibers are long, pure white, and as fine as silk, and the district covered comprises two counties near Quebec, to which city the product is brought to be crushed and cleaned, and from which point large shipments are now being made to England and the United States. The possibilities of this mineral range over a field that is simply marvelous. Fireproof paper, rope, an ink that resists the action of fire, as well as the weaving of textile fabrics, such as table-cloths, asbestos cloth, gloves, etc., while in the range of building materials, fireproof paint, packing for safes, floor deadening, roof protection, covering for steam pipes, etc., are among its more common uses. Its cheapness is its chief recommendation to many, but its thoroughly incombustible nature is of special value because, in spite of the so-called protection received from an insurance company's guarantee against fire, there are many combustible things, that could not be replaced, which can be made of asbestos and made secure from this destructive element.

THE coming season will witness the erection of a large number of unpretentious dwelling-houses in the outskirts and suburbs of Chicago. Last year a considerable amount of acreage property was subdivided, and a large number of lots were sold on terms so advantageous to purchasers, that a good many sites for homes for the middle classes were selected for improvement this season. The dwellings will embrace largely wooden buildings, in the shape of small cottage-houses, with a goodly number of brick structures. Many of these will be built on land which, as yet, is not connected with a sewerage system, and the majority will be inhabited by the laboring classes of the community, who are in receipt of regular wages. Under the control of our sanitary laws and appliances, these homes can be made healthy, even where no sewerage connection exists, but unquestionably not for any length of time. In all cases in large cities an increased mortality always goes hand in hand with defective house accommodation, ventilation, and especially water-supply, sewerage or scavenging.

TO demonstrate that such defective water-supply, sewerage or scavenging promote a high death-rate, it is only necessary to revert to large cities where there is an absence of these vital necessities. This is pointed out in an able address delivered by Sir J. W. Bazalgette, on the government of the city of London, delivered at a recent meeting of the Institution of Civil Engineers at Great George street, Westminster. He cites St. Petersburg as having no sewerage, with its water-supply taken from the river Neva, which is more or less contaminated by percolation from the subsoil, where the death-rate in a population of nearly a million is as high as 35.2 per 1,000; Cairo, supplied with water from the Nile, having no sewers, and the sewerage filtering through the subsoil into the Nile above the water intake, has a death-rate of 37 per 1,000; Vienna, with a death-rate of 29.2 per 1,000, has an average of sixty people in each house, or twice as many as in Paris, while the ratable value of the houses in Vienna is only one-sixth more than those in Paris. Peking, with a death-rate of 50 per 1,000, is without proper sewerage, water-supply, street-cleansing, or other proper sanitary arrangements. The subject thus briefly touched upon largely affects the life and well-being of mankind, and is sufficiently interesting to invite closer and more exhaustive investigation under every variety of circumstances.

IF the little English sparrow is in any sense a pest, he is certainly not more so than when he becomes "too numerous" around our private dwellings. As the little fellow has evidently come to stay, and is sure to entail a very large and constantly increasing progeny, the time may, and doubtless will, come when he will so increase in numbers as to make him a positive and unbearable nuisance, building his straw or rag home under the eaves and in the cornices of every dwelling where he can find a lodgment. We have seen dwellings in this city where the fronts are positively defaced in the spring and summer seasons, by the persistency and industry of the sparrow seeking lodgment, and building his nest wherever an opportunity is presented for him to do so. It seems quite apparent that the time is coming when architects of private dwellings in our cities, will be requested to eliminate from their plans all places around the buildings they erect, that will afford a place of rendezvous for the pugnacious, unmusical, and pestiferous little sparrow.

ARCHITECT GEO. P. RANDALL is seriously ill from an attack of paralysis. Mr. Randall, besides being one of Chicago's oldest and most honored architects, has been one of the most active members of the citizens' committee for the inspection and improvement of tenement houses.

Architecture.

LECTURES DELIVERED AT THE UNIVERSITY OF CHICAGO

BY W. L. B. JENNEY, ARCHITECT.

PART X.—THE CLASSIC PERIOD—CONTINUED.

THE Corinthian order scarcely belongs to the best period of Grecian architecture. It was introduced after her arts commenced to decline.



Corinthian Capital from the Temple of Apollo Didymæus at Miletus. (Rosengarten.)

The capital is well known. It was the most ornate of all the orders, and has been, with more or less modifications, in use from the time of its first introduction to the present day.

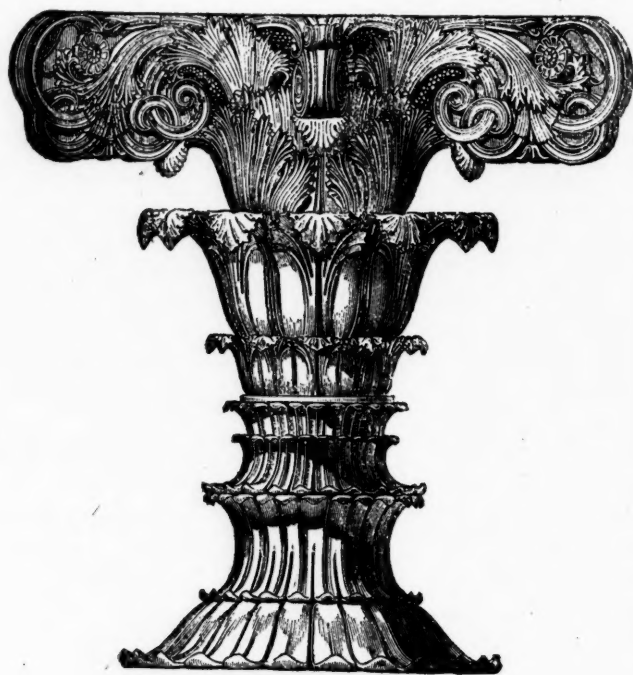
There was a monument on the Acropolis known as that of Lysicrates. A plain base, only nine feet square, surmounted by a circular temple, ornamented by six Corinthian columns, and covered by a roof almost Asiatic in its details. This monument, only thirty-four feet high, is beautiful in its conception and execution, although the mingling of the Egyptian and Asiatic details, for want of blending, is not quite satisfactory.

This is particularly noticeable in the finial and capital.

There is another example on the Acropolis, known as the "Tower of the Winds," that is almost entirely Egyptian, which has been copied in almost every city in this country, particularly in cast-iron work, on account of the simplicity of the capital.

Fragments of Corinthian capitals have been found in Asa Minor among the Ionic temples of a date prior to any known to have existed in Greece. In the hands of the Asiatics it was the bell-shaped capital of Egypt, ornamented with the acanthus leaf and the honeysuckle; in European Greece the honeysuckle

ornament was omitted and the Assyrian spiral substituted, and the whole order treated with that freedom and elegance peculiar to that nation of artists, at the time when their



Finial of Monument of Lysicrates.

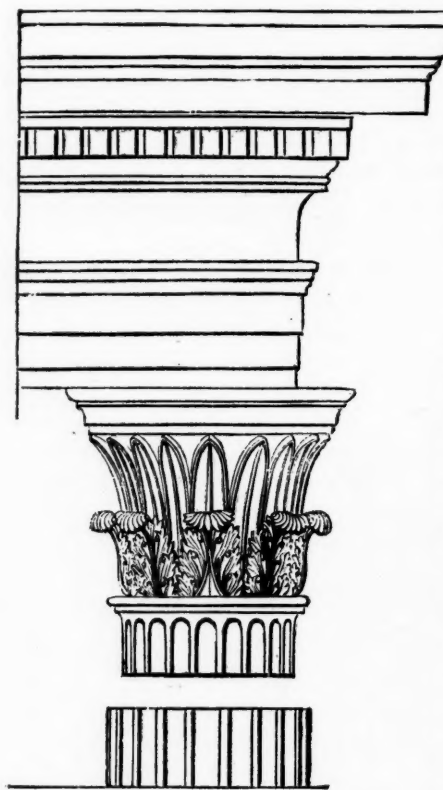
severer Doric order was giving place to a love of variety under the influence of the more luxurious Asiatics.

The largest example of the Corinthian order in Greece is the temple of Jupiter Olympus, a Roman temple at Athens, commenced in the second century B.C., and finished by Hadrian. It was very large, 171 feet by 354 feet, nearly the dimensions of the great hall at Karnac, and, judging from what remains, it was probably the most beautiful Corinthian temple of which we have any knowledge.

MODE OF LIGHTING TEMPLES.

This subject has been much discussed. At one time it was contended that there were no external openings, and that lamps alone illuminated their interiors, but this theory is now abandoned.

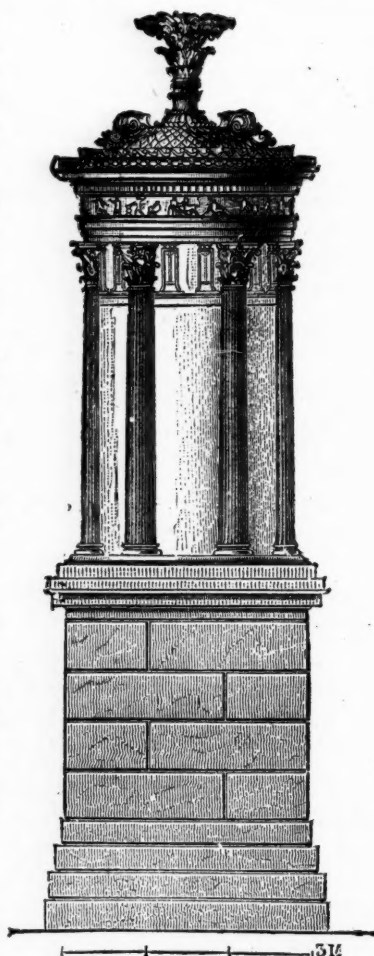
The illustration, from a design of Mr. Fergusson, agrees with what remains of the temples, and accords with the descriptions, and is, probably, substantially correct.



Order of the Tower of the Winds, Athens. (Fergusson.)

In size of ground plan the Grecian temples did not differ materially from that of the Mediæval cathedrals. The Parthenon, one of the smaller temples, was 101 feet wide by 228 feet long, while the temple of Juno at Samos was 190 by 346 feet. They were, however, much lower. Grecian architecture was characterized by strong horizontal lines, and the Gothic by vertical ones.

The Grecian temple was usually built on an eminence, and well detached from other buildings. This is one reason why the Madeleine, at Paris, looks so much out of place, surrounded as it is by numerous lofty buildings.



Monument of Lysicrates. (Rosengarten.)

The Gothic cathedral was, on the contrary, usually built in cities; its tall spires and its strong vertical lines carried the eye upward and detached the building from the surroundings.

COLOR.

It cannot now be questioned that color was extensively used in Greek architecture, both externally and internally.

In interiors, it seems to have covered every object. On the exterior, color was used as back grounds, and even for ornaments on the surface of mouldings.

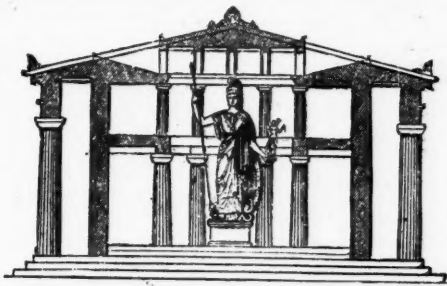
Of the palatial and domestic architecture nothing remains but some imperfect descriptions.

Pompeii, it is true, was to a considerable extent a Greek city, but what we know of it belonged to a period far too late to render much assistance in restoring a Greek dwelling of the best period.

Viollet-Leduc, in his "Habitations of Man in All Ages," has united all that is known with the probabilities, in an interesting account with illus-



Capital of the Choragic Monument of Lysicrates at Athens. (Rosengarten).



Section of the Parthenon. (Fergusson.)

trations of the domestic life of a wealthy Greek citizen. This book contains much valuable information told in a very fascinating manner.

From Greece the history of architecture passes to Rome, where were united all the styles of the ancient world, and where ended the classic period.

As Others See Us.

AMONG the most valuable papers published in the interest of building and architecture, is THE INLAND ARCHITECT AND BUILDER, published in Chicago.—*The Building Trade Journal, St. Louis.*

THE opening number of the third volume of THE INLAND ARCHITECT AND BUILDER (Chicago, \$1.75 a year) is an unusually able and interesting one. It has fine illustrations of notable new ideas in architecture, and a great mass of interesting technical detail that must be of great value to all architects and builders.—*Toledo Blade.*

THE February issue of THE INLAND ARCHITECT AND BUILDER contains an illustration of the new Pullman Office building, and a supplement devoted to the description and contractors of the building, printed in a handsome shade of brown, and the other illustrations are fine. The reading matter is interesting to architects, builders, contractors, etc.—*Chicago Evening Journal.*

THE INLAND ARCHITECT AND BUILDER, a journal devoted to Western architectural and decorative interests, is well worth its price (\$1.75 per annum) to any builder or anyone proposing to build. The views in the February number include a finely tinted double-page print of the Pullman Palace Car Company's Office building in Chicago. It is published monthly in Chicago.—*The Daily Jacksonville, Ill., Journal.*

THE INLAND ARCHITECT AND BUILDER (17 Tribune Building, Chicago) is one of the best authorities on correct taste in architecture and decorations. Its March number has for a supplement an excellent engraving of the Pullman Office building in Chicago, a structure ten stories in height and imposing in appearance. A view of the interior of Oriental Masonic Hall, Chicago, is given also, with details of its finish, it being decorated in elegant and pure Mooresque style. THE INLAND ARCHITECT is peculiarly valuable to professionals as well as to any and all contemplating the erection of a business block or residence.—*Indianapolis Journal.*

WITH the February number THE INLAND ARCHITECT AND BUILDER enters upon its second year under the most favorable auspices, having had a growth in all respects far exceeding the most sanguine expectations of its publishers. The present number is of beautiful typographic appearance and contains a large amount of useful and interesting information in regard to construction, decoration, furnishing, etc., as well as many fine illustrations of architecture; a notable one being the Pullman Palace Car Company's building in Chicago. W. L. B. Jenney, the well-known architect, also contributes a valuable illustrated article. Published monthly by the Inland Publishing Co., 17 Tribune Building, Chicago. Price \$1.75 per year.—*Battle Creek, Mich., Daily Journal.*

Designing Arched Iron Roofs.

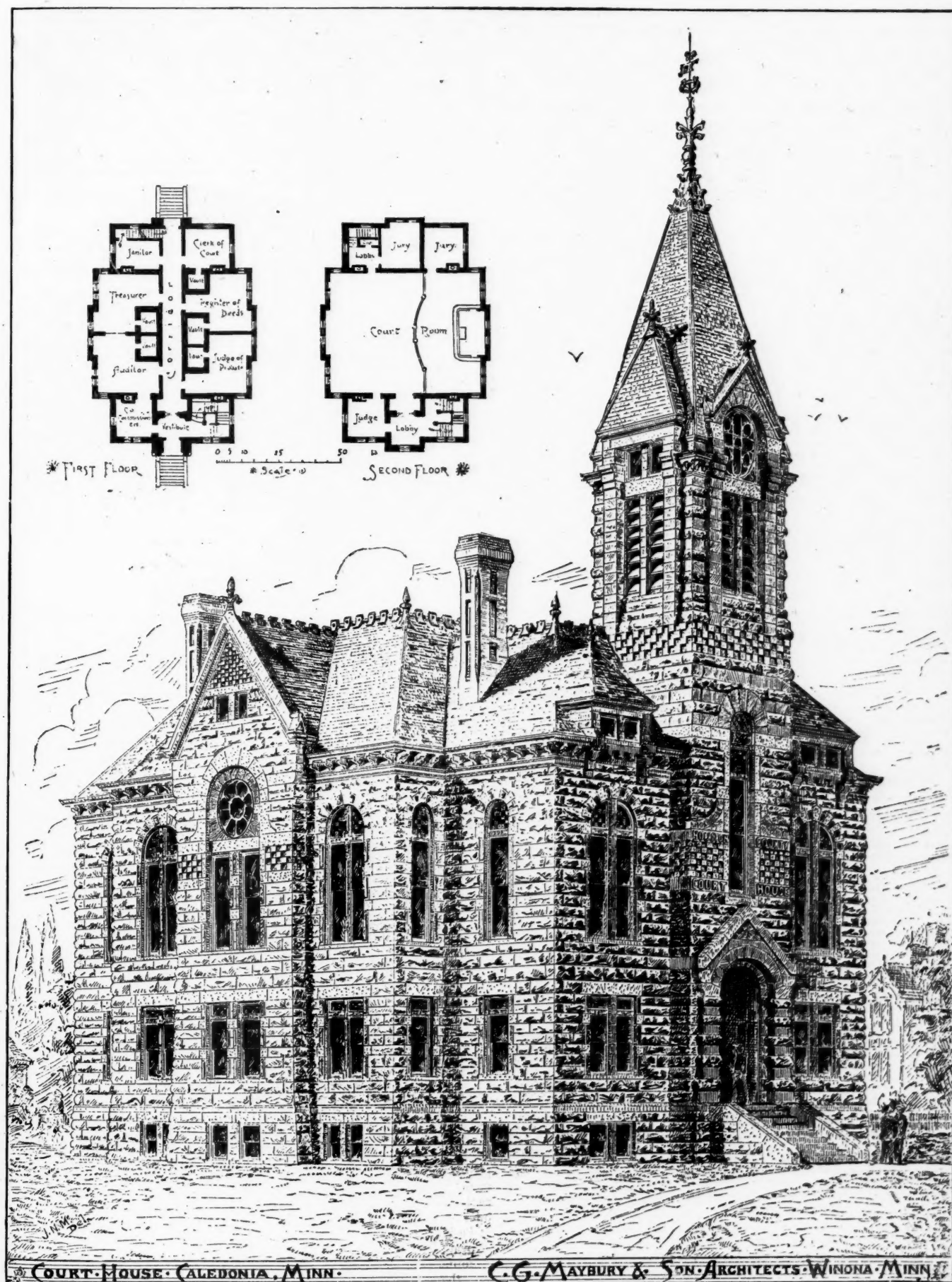
AN English exchange (*The Engineer*) throws out some facts and suggestions on the construction of arched iron roofs that may be read with interest, if not profit, by architects and builders generally, particularly in the treatment of resistance and pressure, in which it would seem there are ideas that might be utilized elsewhere in the construction of buildings where those elements enter into the question. Says the *Engineer*:

It may be taken as a fact that most architects of ironwork for roofs would prefer clean arches to trusses or arches with ties wherever circumstances are favorable, and also that many structures are put on paper, and some are brought into existence, where this is not the case. An arch presses upon its supports in an inclined direction; there is, consequently, besides the vertical component of the pressure also a horizontal one, and this must be provided for as well as the vertical pressures of a simple girder which nobody ever expected to float in the air, or it ceases to be an arch. Cases of an entire neglect of this provision are rare; it is said that the arched ribs in the Exhibition building of 1851—now the Crystal Palace—were first put up without the necessary abutments, and that the bracings between the columns which here and there block the passage were introduced after the horizontal thrust of the ribs had manifested itself; but, on the other hand, the thickness of these ribs is so great, eight feet, that they might have been intended to act as girders; and we have no right to find fault with the architect for wishing to ascertain, by experiment, how much such a girder would spring outwardly under the action of the load, especially if we remember that something equivalent to the bracings would have been required in any case.

More frequent are cases where the provision for the horizontal thrust is insufficient, whether it be that the abutments are formed by buildings not specially designed to resist the thrust, or if there are aisles on each side made of iron framework, that this is sufficiently braced; or again, that the thrust of a second roof is made to bear on the first, in which case a change of the load upon one of them disturbs the equilibrium in both. In such cases the fact that the materials are much stronger, and the forces much weaker, than what has been calculated upon, compensates for the deficiency of the designs. If that were not so, it would often be impossible to explain why some roofs in exposed localities, resting on cast iron stilts, with nothing but a few thin anchor bolts at the bottom, still brave the pressure of the wind, or why in some cases the abutments of clear arches are not destroyed by a heavy snowfall. We therefore regard with particular satisfaction structures such as the great roof over the Midland Railway terminus in London, which are based upon generally sound principles of construction. In that structure the ribs spring from the firm ground, and their stability is independent of the stability of the side walls. The rationality and simplicity of the idea, together with the thoroughly workmanlike manner in which the structural details have been composed, has had the natural consequence that several structures in and out of England have since been erected on the same principle. This principle being that of a firmly fixed arch, also deals successfully with the question of wind pressure. Assuming the wind pressure to act horizontally, or nearly so, the bending moment at the windward springing is one bending outward convex, *i. e.*, lengthening the outer boom, and is often more than double as large as that at the leeward springing, which bends outward concave. The moments from the vertical loads at the springing are generally bending outward concave, because the ribs do not spring from the ground in the direction of the inclined thrust, but vertically. The moments from the wind pressure are generally larger than those due to the load, and we have therefore at the windward springing the difference between a large and a small moment, and on the leeward springing the sum of two small moments. Those points, the most important in that class of structure, are therefore in a particularly favorable condition.

If the importance of this advantage was recognized in the design of abutments, it is difficult at the same time to account for the very artificial contours of some arches, by which the designers apparently endeavored to approach the form of the catenary for the vertical loads, for whoever has calculated the moments from the wind pressure on such arches must have come to the conclusion that simple circular or elliptical outlines would have been quite as good or perhaps better than those based upon a superficial application of the theory of stresses. In any case the difference would be too small to justify the deviation from the simple outlines. But we question whether the methods of calculating the strain in arched roofs as usually applied by architects are very sound, and whether the determination of the acting forces and the coefficient of safety is based upon real conditions. When we hear that one architect assumes forty pounds per superficial foot, including dead weight, snow and wind, with a strain of six tons per square inch of wrought iron, or another fifty-six pounds with eight tons, we suspect that these figures are treated as vertical forces. The result of such treatment cannot agree with the actual conditions, since the greater portions of those amounts are horizontal forces. We have stated that at the springing of the arches referred to the bending moments from the vertical loads are much smaller than those from the wind pressure; but this condition depends on their form, and if an arch is placed on the top of two high columns or walls, the condition is reversed, especially if the arch is not rigidly fixed, and the bending moments from the vertical loads at the bottom of the columns or walls—now the real springing of the structure—are generally much the larger. It is then necessary to introduce a tie at the most convenient place, *viz.*, at the top of the columns or walls. This is known by every novice in designing, and recognized as an axiom; and if, nevertheless, an architect—for instance, the architect of the new terminus of the London, Brighton & South Coast Railway at Brighton—is led by his objection to tied arches to ignore such axioms, we are bound to assert in defense of the profession that such perversity of mind is quite exceptional.

Is, then, a tied arch aesthetically so very objectionable? We readily admit that the common arch roof, with curved ties and radiating stays, or secondary ties, when viewed in perspective, has a confused and restless



The Builders and Traders' Exchange.

MEMBERS continue to multiply, and the interest which attended the organization of the association a month ago has not decreased. In fact, the need was so apparent, and the advantages to be gained so great, that nearly all the leading members of the building profession in Chicago have expressed a wish to become part of the organization, and in the near future, perhaps another year, will see the Exchange occupying their own building, built by a syndicate of its more wealthy members. Meanwhile, the present intentions and the future plans of the Builders and Traders' Exchange, is outlined in the following circular, which has just been issued to the craft, which is included in a report of the board of directors at a recent meeting. It is as follows:

The board of directors beg to report that suitable quarters for the Builders and Traders' Exchange have now been secured.

The hall (40 by 80), well lighted at both ends by windows, and by skylight in the center, on the first floor, centrally located, and easily accessible from both Clark and La Salle streets, in the National Life building, will accommodate the Exchange until it is ready to occupy permanent quarters, erected especially for its own use. To build and own such at the earliest possible moment, is our aim. In the meantime, the building in which it is now about to establish itself, will furnish ample accommodation for Exchange purposes, and also office room to builders and others, who may desire to be near it. Quite a number of such offices have already been taken, assuring the establishment of a builders' headquarters. We desire to say, in this connection, that this Exchange hall may and will be used for meetings of trade associations in the evening. The membership roll now numbers between three hundred and four hundred names, embracing the best-known dealers and manufacturers of rough and cut stone, granites, brick of all varieties, iron, tin, glass, terra-cotta and tile, hard and soft lumber, paints, sewer-pipe, lime and cement, sand and gravel, heating apparatus, and other building appliances, and representatives of all building trades, particularly masons, stonecutters, carpenters, stair-builders, foundrymen, galvanized-iron workers, gravel, slate, and tin roofers, plasterers, painters, plumbers, millmen, excavators, bellhangers, and so forth.

It is our aim to admit only those of an established business reputation. The committee on membership spares no pains to gain that end. We trust no mistakes have been made. But if it should happen that a firm or trader is elected to membership who is not honest and upright in his business dealings, our by-laws provide for his expulsion, and the by-laws will be enforced. Thus it may be deemed a distinction now to hold a membership in the Builders and Traders' Exchange, and we trust the time is not far distant when it will be a reproach *not* to number among its members.

An Exchange directory for 1884 is now in course of preparation, in which all will be enumerated who may be admitted by April 1. This book will also contain the fire, health and building ordinances of Chicago revised to date.

In conclusion, we desire to thank the Master-Masons and Builders' Association for its kind offer to accommodate our members in its room (which after May 1 will be a part of our hall) until our own quarters can be arranged. All members are welcome now, though the rules for government of the Exchange will not be enforced until after May 1.

The Exchange, although its separation from the Permanent Exhibit is to be deplored, the effect being to abridge the growth and usefulness of each, should be supported by every builder, whatever his line may be in Chicago; and for the general information of those belonging to those trades mentioned in the above circular who have not joined, the by-laws are given.

ARTICLE I.

MEMBERS.

Any individual or firm of mechanics, manufacturers or traders, of good repute, whose vocation connects them with the trades or industries of building, may become a member of this exchange, upon election by the board of directors.

The name of any person wishing to become a member of the exchange shall be posted in a conspicuous place in the exchange room, for one week after his application is received.

Objections to the admission of any applicant must be made to the board of directors, in writing, signed by the objector, who, through its proper committee, will elect or reject the applicant, at its next regular meeting.

The election of any applicant shall be void, unless the initiation fee, hereinafter fixed, is paid to the secretary within two weeks after notice of such election may be mailed to said applicant.

Upon payment of the fee, the member shall sign the roll, thereby pledging himself to observe all rules and by-laws of this association, and receive his membership card, and shall then be entitled to an interest in the fund then in hand, or thereafter to be accumulated, and to all profits which may accrue to the association, as long as he continues to pay the annual dues in advance, or is not otherwise disqualified.

The names, business address and residence of all members, together with number of letter-box held by them in the exchange, shall be permanently posted in the exchange room.

Upon retirement from active business, any person who has been a member in good standing may be elected a life member.

ARTICLE II.

OFFICERS.

The officers of this exchange shall be a president, two vice-presidents, a secretary, a treasurer and ten directors.

The executive officers shall be elected at the annual meeting, for a year. At the same time, five directors shall be elected for the term of two years, and also three inspectors of elections to serve at the next annual.

All officers shall serve until their successors are duly elected and have qualified.

Should vacancies occur among the executive officers, the board of directors shall fill them; and in case of vacancies in the board of directors, the president shall appoint a member, or members, to serve for the unexpired term.

ARTICLE III.

DUTIES OF OFFICERS.

1. The president shall preside at meetings; be chairman of the board of directors; appoint special and standing committees; approve all bills, by his signature, before they are paid; direct secretary to post notice of meetings; shall countersign certificates of membership, and have the casting vote at all times.

2. The vice-presidents, in the order of their seniority, shall preside at meetings in the absence of the president, and in case of sickness or protracted absence of that officer, shall approve bills and discharge his other duties.

3. The secretary shall keep a record of all meetings, and the accounts of the association, in books provided for that purpose; shall give notice of all meetings; collect all moneys due and turn them over to the treasurer, upon demand; receive and post all applications for membership; notify all new members of their election; issue all certificates of membership, and affix the seal of the exchange thereto; countersign all bills, and do all other duties properly belonging to his department, or required of him by the president or board of directors.

4. The treasurer shall receive all moneys from the hands of the secretary, and pay all bills approved by the president and countersigned by secretary, and render a full account, at the annual, of moneys received and paid out during the year, and to the board of directors whenever called upon.

Before entering on their duties, both the treasurer and secretary shall file with the president an indemnifying bond, payable to the exchange for an amount and with such sureties as may be approved by the board of directors, and at the end of their service they shall turn over all funds, receipts and papers in their hands to their successors duly qualified.

5. The Board of Directors shall have charge of all property of the exchange not in hands of the treasurer; shall fix the compensation of the secretary and treasurer for their services, and appoint all employees and determine their salaries.

Whenever the cash in hands of the treasurer shall exceed the prospective running expenses of exchange for a year, such surplus may be invested by the board in bonds of undoubted security.

From their number, the president shall appoint, within one week from the election, the following standing committees, each consisting of five members: a committee on membership, a committee on rooms, a committee on arbitration, and a committee on finance.

a. The committee on membership shall meet every Monday, receive all objections to applicants for membership, and treat such objections as made in confidence; elect or reject all whose names have been posted for one week, and report the result of their labors to the secretary.

b. The committee on rooms shall have charge of the rooms used by the exchange, and shall see that all necessities are properly appointed. They shall formulate and post rules for the government of members and visitors to the exchange, and see to the enforcement thereof.

c. To The arbitration committee, any matters in dispute, or differences between members, or members and others, may be referred for settlement.

The secretary shall act as clerk of the committee.

All persons who may desire the services of said committee shall file with the clerk an agreement to submit their case to the committee, and be bound by its decision.

When such agreement is filed, the secretary shall call a meeting of the committee as soon thereafter as may be practicable and convenient to the parties concerned, to hear and decide such controversy; and each member of said committee who shall be present at the hearing of such case, and the secretary, shall be entitled to the sum of five dollars for each sitting, to be paid in equal parts by each party to the controversy.

d. The Finance committee shall suggest financial measures to the board of directors, and audit the books and accounts of the secretary and treasurer, and report the result of their finding at the annual meeting.

ARTICLE IV.

INITIATION FEE AND DUES.

Until the membership of this exchange shall have reached five hundred, the initiation fee shall be \$25. From that, and until the membership shall be one thousand, the initiation fee shall be \$50. Thereafter, the initiation fee shall be \$100.

The annual dues shall be fixed by the board of directors, at their first meeting in May, in an amount not less than \$10, nor more than \$20.

None shall be liable for dues for the current year of their initiation.

ARTICLE V.

MEETINGS.

There shall be an annual meeting on the third Monday of January, for the election of officers, and such other business as may regularly come before it.

Special meetings may be called by the president at any time, and shall be called at the written request of any ten members, stating therein the subject they desire to bring before such meeting.

Notice of such meeting and the subject for discussion, shall be posted in the exchange room for one week previous thereto by the secretary, and also mailed to each member at least three days before the meeting.

At the hour of 12 M., on the first Tuesday after the first Monday of January, the president shall call the members present to order, and appoint a committee of five, whose duty it shall be to nominate a member for each of the offices to be filled at the annual meeting; to post the ticket so made (printed on plain white paper) in the exchange at least five days before the annual.

The annual meeting shall be called to order at 12 M. After the reports of secretary and treasurer, properly audited by finance committee, have been presented, the polls shall be opened in charge of the inspectors of election, who shall receive each ballot, and, upon ascertaining that it is offered by a member entitled to vote, they shall deposit it in the ballot-box. At 5 P.M. the poll will close, and the inspectors will canvass the vote and announce the result to the evening meeting.

A plurality of votes cast shall constitute an election.

ARTICLE VI.

DEFAULT IN PAYMENT.

Any member who shall neglect to pay the annual dues for the period of three months from May 1, shall be fined one dollar for each month or part of a month he shall so neglect beyond the three months provided for; and until such dues and fines are paid, he shall have no vote, and at the next following annual meeting, if such monies still remain unpaid, the names of such delinquents shall be publicly announced by the officer in the chair; their names shall be stricken from the roll; they shall be entitled to none of the benefits of the exchange, and any interest he or they may have had in its property shall revert to the association.

ARTICLE VII.

EXPULSION.

Should fraud or dishonorable business practices be charged against a member, the committee of arbitration shall investigate such charge at once and report its finding to the board of directors. If the charge is sustained by evidence, the president shall publicly announce the expulsion of such offending member, and his interest in the property of the exchange shall cease.

A member who has submitted his case to the decision of the arbitration committee, and refuses to abide by such decision when made, shall be deemed to be guilty of dishonorable business practices.

ARTICLE VII.

QUORUM.

Twenty-five members shall constitute a quorum at any meeting of the exchange.

ARTICLE IX.

AMENDMENTS.

Additions, alterations or amendments to these by-laws may be made by a two-thirds vote of members present at a special meeting called for that purpose, after such proposed additions, alterations or amendments shall have been posted in the exchange room one month previous to the meeting.

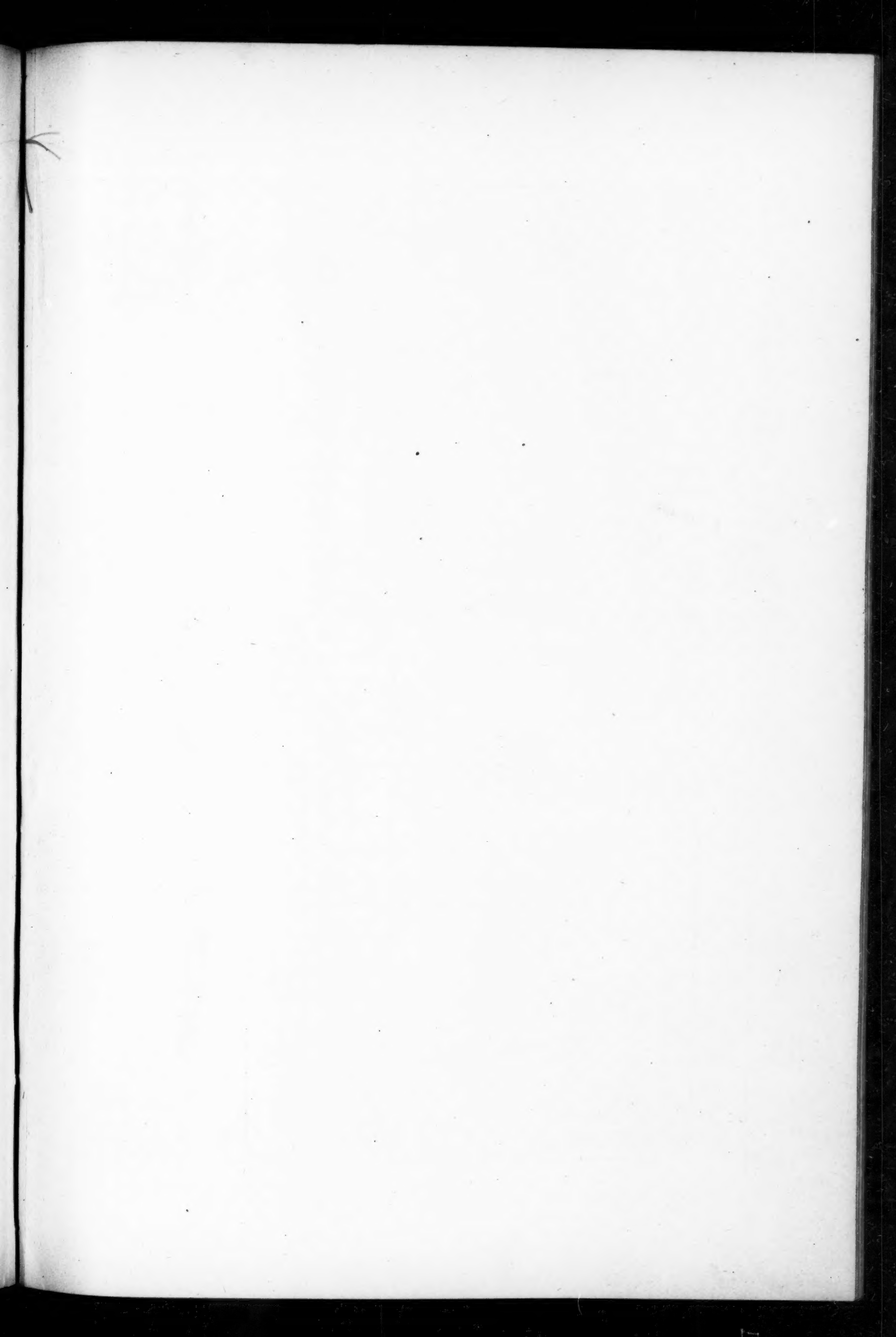
ARTICLE X.

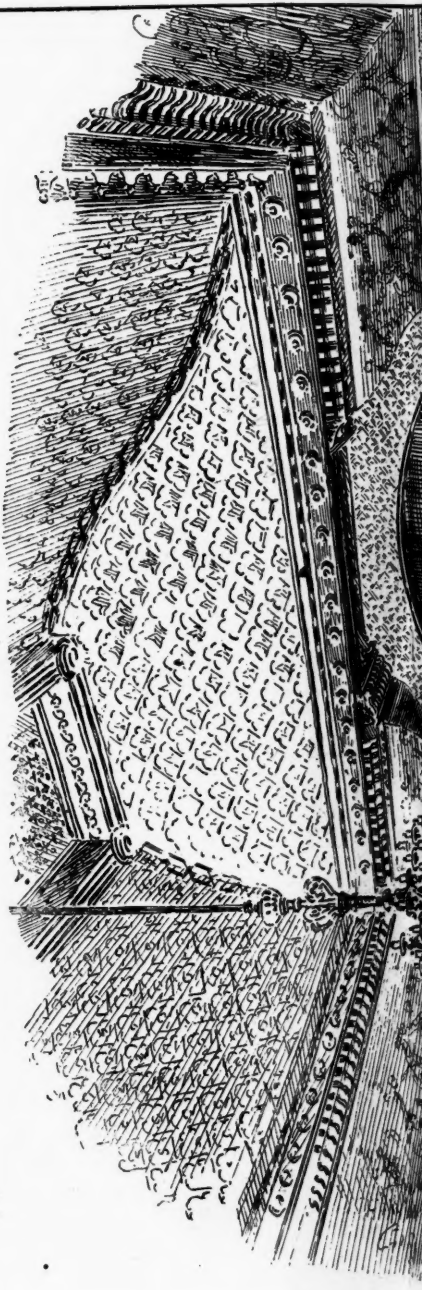
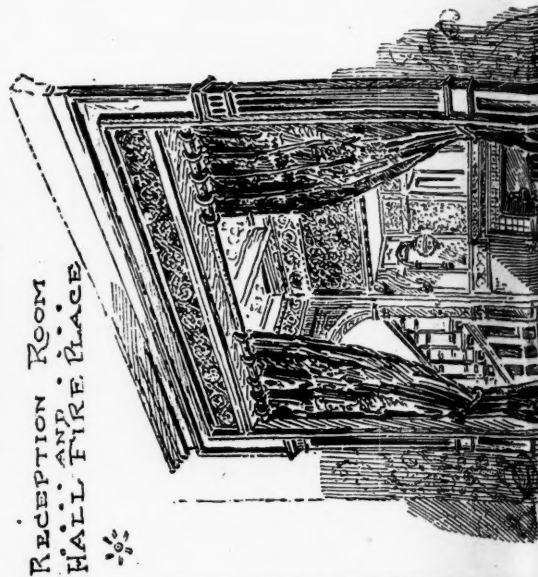
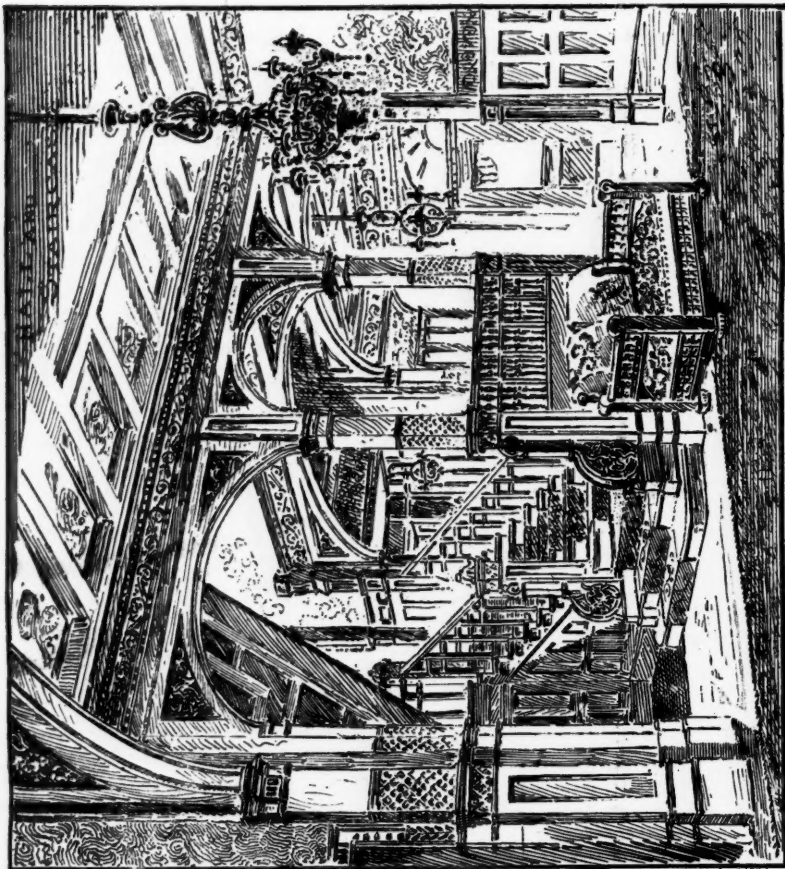
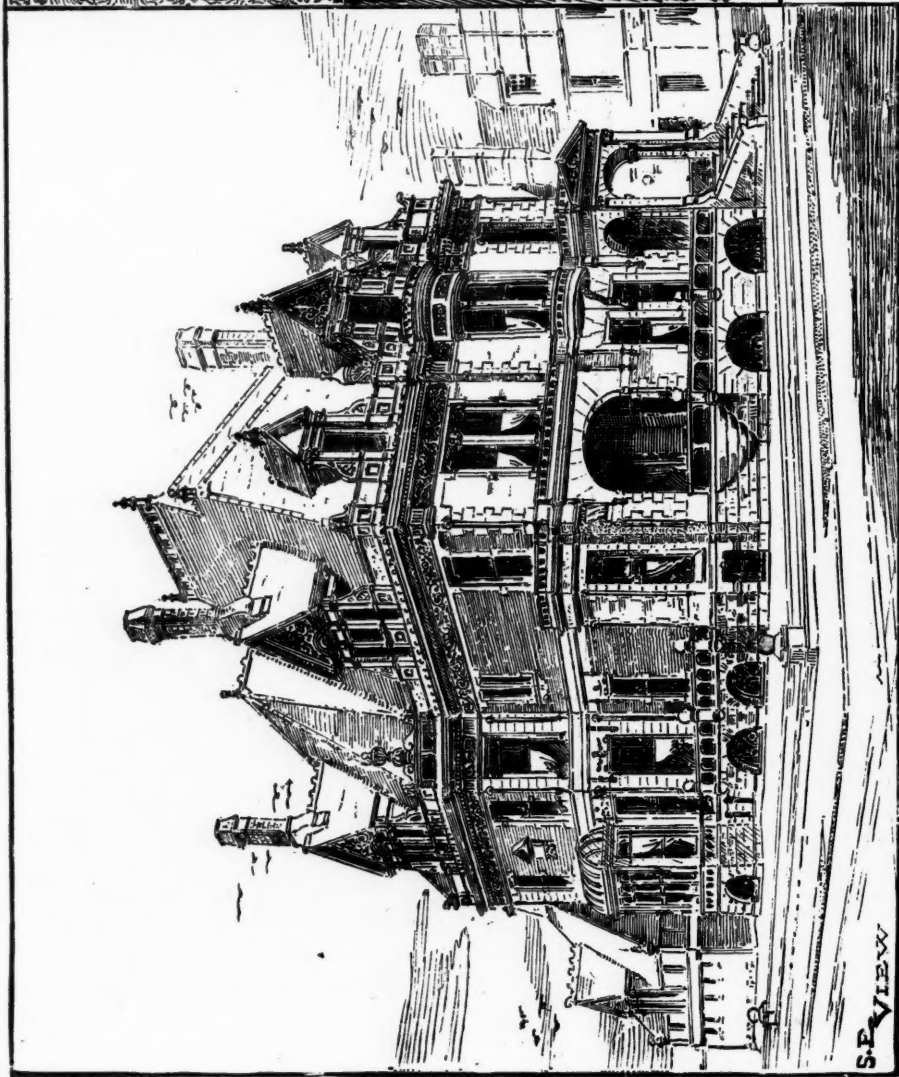
RULES OF ORDER.

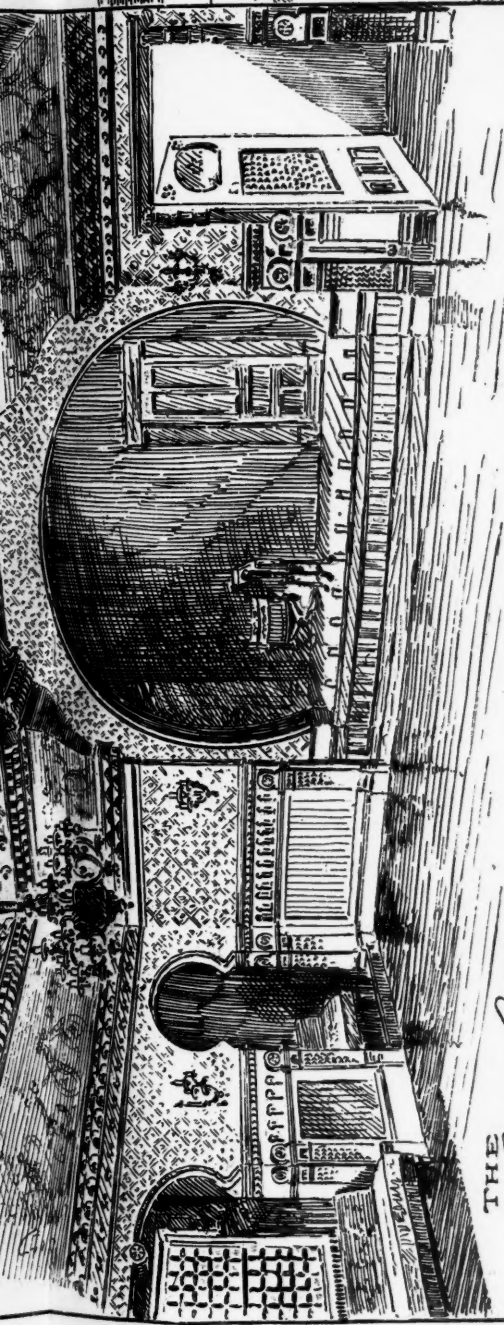
The rules of order laid down in Cushing's Manual shall govern.

A New Panorama Building.

THE interest which has been created by the panorama of the Battle of Gettysburg, which has drawn full houses daily and nightly for months, with signs of an ever-increasing patronage, has prompted the erection of another similar building by the American Panorama Company, on the corner of Hubbard court and Wabash avenue. The designs are by Architect John M. Carrere, of New York, to be superintended by Architects Jenney and Otis. The contract for the ironwork is already let to the Globe Ironworks, and others will be let so that the building will be completed by June 1. The structure will be iron and brick with stone basement. The design for the entrance is very attractive; offices will occupy each side and a small café above, a tile roof covering this, while the entire interior will be finished in Georgia pine. The painting will be the Siege of Paris, and will be of great interest to the Western public; and in a time of peace like the present these two great war pictures, one representing the culmination of a contest between two of the greatest European powers, and the other the turning-point in our nation's history where the minutes held the shaping of ages of history and the entire future of our great republic in their grasp, will educate the rising generation in the thought that in times when the nation was in danger, the citizens were ready to forget the home of peace for the field of war, and gave all they had, their lives, in their nation's defense.

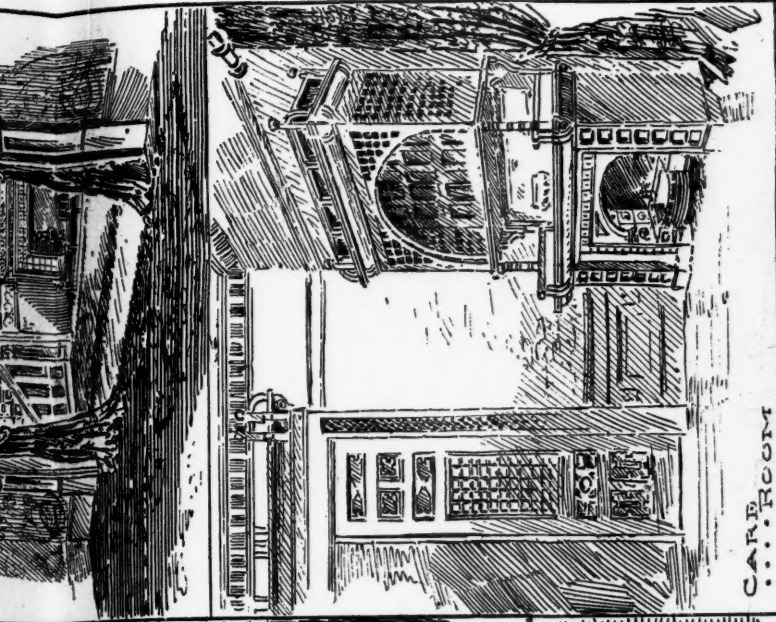




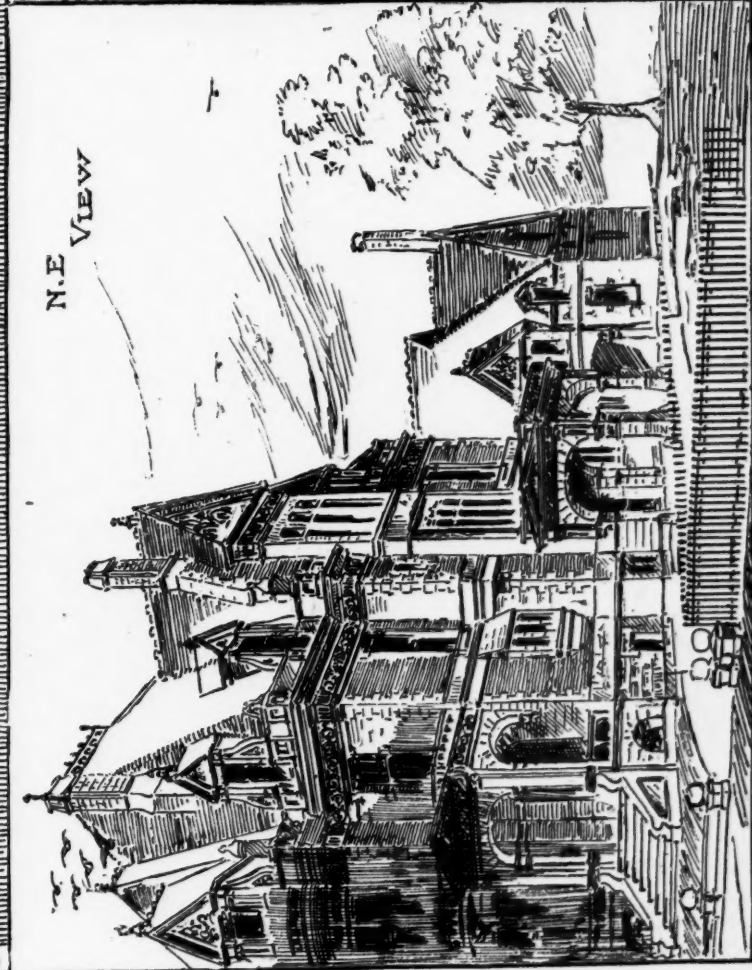


THE BALL ROOM

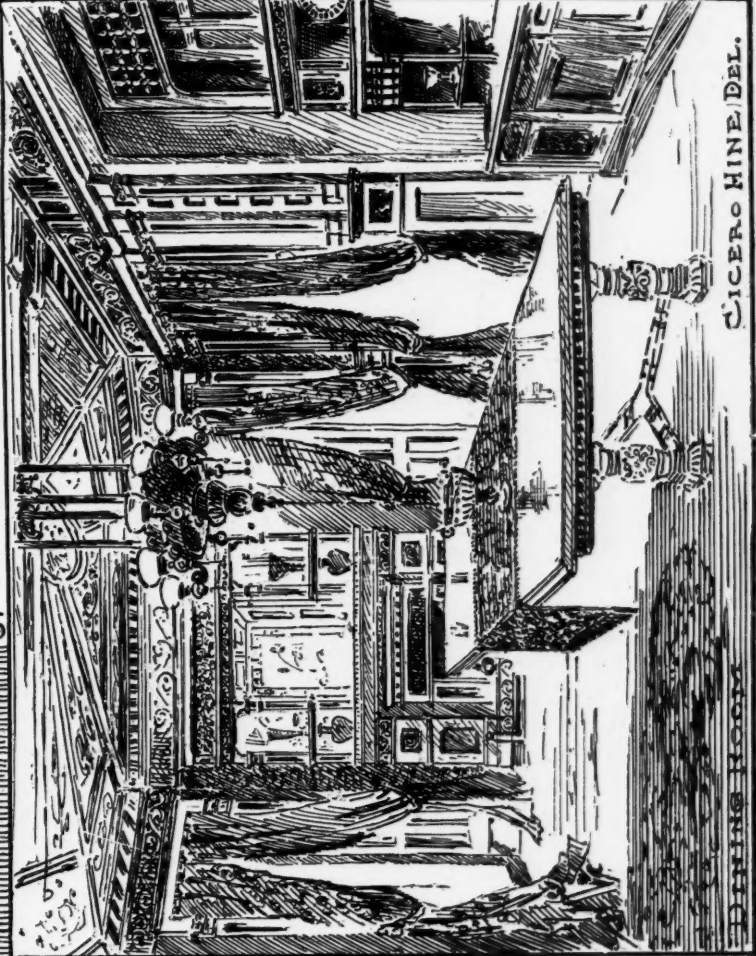
RESIDENCE OF
M.D. WELLS ESQ.
WHEELLOCK AND CLAY ARCHITECTS
CHICAGO



CARE ROOM



N.E. VIEW



DINING ROOM

CICERO HINE DEL.

Inland Architect and Builder Print.

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Architectural and Building Notes.

THE Northwestern Terra-Cotta Works have just completed a new kiln, which will hold one thousand cubic feet of material.

THE estimated rental for office buildings in the neighborhood of Dearborn and Monroe streets, Chicago, is one hundred and forty per square foot.

IN February, 1883, the Chicago City Building Department issued permits for one hundred and sixty buildings, at a cost of \$501,720, and in February, 1884, for two hundred and seventy-nine buildings, at a cost of \$1,781,000.

AN automatic passenger elevator for use in private residences is one of the latest conveniences introduced. The elevator is made so that it requires but slight effort to operate it, and the possibility of accident is avoided by an arrangement of weights that are automatic in their action.

ARCHITECTS COBB & FROST are still at work on the plans for the new opera-house; though from the fact that the land is encumbered by a building owned by the Johnson estate, with the possibility of legal difficulties before it can be torn down, there is some uncertainty about the time the erection of the opera-house will commence.

THE Indiana State Asylum Commission has accepted the plans of Architect E. H. Ketcham, of Indianapolis, for the buildings at Evansville and Richmond, and they are to be ready for the contractors by March 10. Bids for the work will be opened the 8th of April. No action has yet been taken relative to the material of the building at Logansport.

THE Master Plumbers' Association have secured permanent quarters at 125 Dearborn street. Mr. J. J. Wade at a recent meeting strongly urged the erection of a \$30,000 building, by and for the use of the society, and as this is one of the strongest and best organized of the building associations of the city, the project is feasible as it certainly would be advisable.

ARCHITECT JOHN M. VAN OSDEL, the pioneer architect of Chicago, is now the pioneer in the building of office structures west of the river. The Cray block, which will be six stories in height and will have a frontage on Madison and Canal streets of the best quality of dark red St. Louis pressed brick. The character of this improvement calls for editorial mention.

ARCHITECT S. V. SHIPMAN is engaged upon plans for a ten-story office building for Mr. Goff, of Cincinnati, who is represented by W. D. Kerfoot & Co. The lot is 72 by 60, and the building will be built of McArthur red sandstone and pressed and ornamental brick. The lot is occupied by four-story brick buildings, which will be immediately torn down and the work of construction commenced.

ARCHITECT S. S. BEMAN has prepared plans for a massive eleven-story building for Marshall Field, Esq. The lot is 82 by 168 feet, and the structure will be thoroughly fireproofed. Although the prospective visit of the owner to Europe may defer the construction, the probability is that the work will immediately commence. The plans are not yet so far completed as to make a description possible at this date.

ARCHITECT GEO. E. EDBROOKE is rapidly pushing the work upon the Continental office building for Messrs. Cooper & Carson. It will be nine stories in height, with one hundred feet frontage, and will be constructed as a thorough office building and practically fireproof. The first story is planned for two banking offices, and there will be one hundred and fifty additional offices. The building will be ready for tenants July 1.

THE Journeymen Stonecutters' Association have issued a circular notifying owners and architects that hereafter members of the association will not be allowed to work any buildings unless the contract has been taken direct from the architect or owner, the reason given being that the system of sub-contracting, because of the inferior quality of material supplied and of work performed in many cases, is injurious to the reputation of stone as a building material.

COL. J. MASON LOOMIS has leased a lot on La Salle street, between Jackson and Quincy streets, and proposes, with the cooperation of Mr. Wm. K. Nixon, to form a stock company for the erection of a large office building. The lot is 165 by 60, and will admit of a structure of magnificent proportions. Though the required stock is nearly all taken by well-known capitalists, the company has not yet been incorporated and no architect has been engaged, but this will be done and the work of building commenced at once.

CONTRACTORS are considerably interested in the revival of a method of fireproofing which, though practiced years ago in Chicago, has not been pushed with the vigor so apparently important a device should warrant. It is called James John's Plaster and Concrete Fireproofing for Wood Construction, made by an old and reliable Chicago contractor. The method is to apply it in one continuous mass, securing it by nails and heavy galvanized iron to the joists or studding. The claims for it are that it will effectually resist both fire and water, and as it is exceedingly cheap it should be examined by practical men, and, if it is all it claims to be, adopted.

THE Building Committee of the Home Insurance Company of New York have been examining the designs of three different architects. They are representative men in the architectural profession, and it will be hard to choose, and when it is done it will be because of the fancy of the committee for some one design rather than because of any weakness in the others. A permit to build was taken out upon the plans of architect W. L. B. Jenney, and that architect has, upon the orders of the company, let the cut stone and other contracts; but while this architect's designs are highly meritorious, and would give to the company a magnificent structure, no design has as yet been accepted.

ARCHITECTS BURNHAM & ROOT have, after holding the plans of the Armour, Kent and Bensley building for a year, commenced letting contracts and will soon begin the excavation for this \$1,000,000 office building. Architect Normand S. Patton, who arranged the iron construction of the building for the owners in connection with the architects, is engaged computing quantities, etc., for the ironwork preparatory to the letting of the

contract. The Adams office building, by this firm, will be commenced May 1, upon the expiration of the lease of a small building now occupying the lot. The owner is in Europe, but the plans were all prepared last fall and nothing will prevent the commencement of the building at the time stated.

ARCHITECTS ADLER and SULLIVAN have under way, for Mandel Bros., a stable that is both extensive in architectural design and a model in stable construction. It is 86 by 44 feet, three stories high, and is built of pressed and molded brick and terra-cotta ornamentation. The horses are placed in the second story and the general arrangement is made with special reference to the health and comfort of the stock. The cost will be about \$20,000. These architects have also drawn plans for the F. A. Kenedy Co., for a bakery. It will be six stories in height, 82 by 150. The arrangement is such that the flour is mixed on the top floor, and it passes downward from floor to floor in the process of manufacture. The ovens, which are located on the third floor, are six in number and weigh two hundred and forty tons each. This when completed will be one of the most perfect bakeries in the country. The cost will be about \$40,000. Among other plans in this office are those for flats for S. Blumenfeld, on Chicago avenue near State, 25 by 80, with stone front and cornice; also a factory for a large manufacturing firm in West Monroe street, 90 by 200 feet, four stories and basement in height, to cost about \$50,000; also a dwelling on Michigan avenue, near Thirty-second street, with brownstone front; and plans for numerous other projected buildings, most of which it is too early to give even a brief mention, but indicating an exceedingly busy season for this firm.

Our Illustrations.

Page 27, Courthouse at Marshalltown, Iowa, by architect John C. Cochrane. The building plans have been completed and work will commence as soon as the weather will permit.

Page 21, perspective of Courthouse for Houston county, at Caladonia, Minnesota, now nearing completion, by architects C. G. Maybury & Son, of Winona. It is built of limestone, the outside walls faced with pitch-faced range, and the trimmings are of the same stone, bush-hammered. The cost will be about \$35,000.

The Commercial National Bank building, by Architects Jaffray & Scott, Chicago, occupies a lot 90 by 131 feet, corner of Monroe and Dearborn streets. It is six stories and basement in height, the basement being of blue Bedford stone and the remainder of dark red St. Louis pressed brick, with trimmings of Perth Amboy terra-cotta. The first floor will be occupied as a banking-room and will have an exceptionally fine interior, designed by Mr. Scott, whose facility as a designer as well as architect is well known. The remainder of the building is fitted for offices, and the advantages of the locality are such that the offices are almost all rented. The illustration is by Paul C. Lautrup, from the original design of the architects, which has in the construction been slightly altered by the owners.

Page 25, Woodlawn Presbyterian Chapel, Hyde Park, Ill., Harry Lawrie, architect, 54 by 33, hall 40 by 32. This chapel is to be erected at the corner of Sheridan avenue and Sixty-fourth street, Woodlawn. The building comprises a hall, 40 by 32, capable of accommodating about three hundred people. At the end fronting Sheridan avenue are two rooms, which are intended to be used as classrooms, but these, when required, can be thrown into the main body of the chapel by opening folding partitions. Over these two rooms is a gallery extending the whole width of chapel, access to gallery being had by stair in tower. The front and sides will be erected in pleasing combinations of timberwork, shingles being on the front and tower, while in the upper part of front gable plaster and half-timberwork will be employed, giving an old English effect to the exterior. The tower is about sixty-three feet high, and in the upper part a bell chamber is provided. The interior will be plastered and wainscoted, and the roof will have wooden ribs at intervals of about eight feet. It is intended to decorate the interior walls and roof in pleasing tones, and to stain the woodwork to show its natural color. It is expected that operations will be commenced at once, and when the building is completed it will form an attractive and handsome addition to the handsome growing town of Woodlawn, and will be quite in keeping with the many fine residences springing up in that locality. The building committee are Messrs. Chas. Pennington, F. W. Green, J. R. Towle, E. B. Springer; and the trustees are Messrs. Jos. N. Barker, D. K. Home, John A. Cole, E. B. Springer, John Mobin.

The residence just completed for M. D. Wells, Esq., by the architects Wheelock & Clay, is illustrated by two perspectives and several interior views from sketches by Cicero Hine, with the exception of the ballroom, which was drawn from an excellent view of that interior photographed by J. W. Taylor. Mr. Hine has succeeded in giving an admirable illustration of this, one of the finest architectural productions among the residences of Chicago. The basement walls and the front to the second story are composed of Connecticut brownstone, and the remainder of the walls of a beautiful quality of Baltimore brick, trimmed and ornamented with artistically executed terra-cotta from the Northwestern Terra-Cotta Works. The interior of the building is exceptionally well laid out, and the architects have reason to be congratulated upon the production of a residence that is so universally admired. It stands on the southeast corner of Michigan avenue and Twenty-sixth street, and the view given shows two fronts to excellent advantage. The interior is finished in natural woods, manufactured by the interior finishing firm of Tomlinson & Carsley, the designs for which, as well as for the furniture, were made by Luther F. Crosby, who, in conjunction with the decorator, Mr. Abner Crossman, and the tapestry artist who furnished all the tapestries and upholstering, carpets, etc., Mr. G. W. Haskins, united in the work of producing the artistic and harmonious interior. As this is notably a Chicago residence, created by Chicago architects and Chicago workmen, further illustration and description will be made in a future number.

Lumber Notes.

At the Moffat camps on Hubbard Lake, Mich., 2,500,000 logs have been banked.

RYERSON & HILL have built an addition, 60 by 80, to their mill at Muskegon, Mich.

JONATHAN BOYCE will pile 20,000,000 feet of lumber in Muskegon, Mich., this season.

A SIGHT rarely witnessed may be seen at Averill, Midland county, Mich., a pile of 17,508,850 feet of pine saw logs.

REPRESENTATIVE CUTCHEON, March 10, presented a petition signed by lumbermen, representing \$8,000,000 capital, protesting against that portion of the Morrison bill which places lumber on the free list.

A TREE was cut last week in the south part of Lakeview, Montcalm county, Mich., which measured from the roots to the top one hundred and sixty-four feet, and cut five sixteen-foot logs and four twelve-foot logs.

A SUDDEN rise in the Big Sandy river near Catlettsburg, Ky., of five feet has caused disastrous work among the logs awaiting shipment. The steamer Spurlock narrowly escaped destruction by rushing logs. There is no estimate of the extent of the loss.

THE total receipts of forest products at Chicago during the year 1883 aggregate 1,897,815,000 feet of lumber and 1,185,108,000 shingles, to which must be added 65,477,000 lath, and the hardwood, which forms no mean factor in the business of Chicago.

THE majority of the logging camps will push their work as long as favorable weather will permit, even if it runs along into April. The cut of the Eau Claire Lumber Company on the Eau Claire and tributaries will exceed 65,000,000 feet, over 50,000,000 of which have already been banked. Driving supplies and implements are being forwarded, so that everything will be in readiness to commence that part of the work with the first disappearance of ice.

THE following officers and directors were elected by the Chicago Lumberman's Exchange for the ensuing year: President, J. P. Ketcham; vice-president, W. E. Kelly; board of directors, B. L. Anderson, Thaddeus Dean, W. A. Fuller, W. E. Kelly, J. O. Bryant, P. G. Dodge, Addison Ballard, J. P. Ketcham, J. S. Vredenburg, S. K. Martin, John McLaren, T. G. Morris and A. C. Soper. The election of a secretary and treasurer was postponed until the next regular meeting.

NEARLY all the lumber mills on the Chippewa river, Wis., are undergoing a thorough overhauling now, and additional machinery is being introduced and every preparation for an increased cut during the coming season is being made. The loggers are virtually through with their season's work now, and are only awaiting moderate weather to break camp. Everything on the main river and tributaries is ready for the drive, which from every indication and prophecy is yet a great way in the future.

THE Chicago Lumber Company recently purchased of C. N. Nelson & Co., at St. Paul, 18,000,000 feet of lumber, which is probably the largest sale of lumber ever made at one time in this country. The purchase was made by S. H. Fullerton and M. T. Green, and the lumber is for the company's yards in Kansas. Some idea of the amount of lumber can be had by figuring on the cars it will take to move it. Allowing 10,000 feet to each car, it would take a train twelve miles long to carry it, and another mile of engines to pull the train.

Personal and General.

THE address of Paul C. Lautrup, the architectural designer and draughtsman, is 157 Washington street, Chicago.

THOS. L. JOHNSON was confined to his hotel in Chicago for two weeks, suffering from a fractured rib. The injury was sustained in Omaha.

MR. W. C. HALL, vice-president of the Perth-Amboy Terra Cotta Company, visited Chicago, St. Paul, and other western cities, last week.

MR. W. I. AUDSLEY, F.R.I.B.A., of London, Eng., has been visiting Chicago and other western cities. A proposed public building, for which this architect has submitted preliminary sketches, will be described at some future time, should the project become a fact.

MR. H. C. MCLEAN, of the supervising architect's office at Washington, visited the West recently for the purpose of ascertaining the condition of certain public buildings. There is a possibility that the consideration of a report upon this subject may shortly be taken up by congress.

ARCHITECT S. S. BEMAN, who has been known solely as the architect for the Pullman Company, is doing general architectural work, and is engaged upon plans for some of the most important buildings and residences to be erected this season, with headquarters at Pullman's Palace Company's offices.

F. S. ROHAN, Esq., of the firm of Rohan's Sons, of Cincinnati, was elected vice-president of the Builders' Exchange of that city at their last annual meeting. Mr. Rohan is one of the representative members of the building fraternity in Cincinnati, and it is an indication that the society is becoming influential and conservative, when such men hold the important offices.

ARCHITECT HENRY BEVIS, a highly esteemed citizen and well-known architect, died at his residence in Bond Hill, Cincinnati, March 6. He had been suffering from Bright's disease for some time, but his troubles were aggravated by an attack of pneumonia, which resulted in death. He was about fifty years of age, and had been prominently identified with the building interests of Cincinnati for over twenty years. A few years since he was a candidate for superintendent of the public school buildings, but was defeated by a few votes by Godfrey Ludwig. He was universally respected and acknowledged as a practical and scientific builder and architect.

THE Indianapolis branch of the American Institute of Architects is about to reorganize. There are now nine members, and several more are expected to join. The revival of interest in association matters, which is becoming general among architects in the western cities, is one of the most hopeful indications that architecture is becoming a study as well as a business with the profession, and that a higher plane of professional excellence is desired.

Drawing Instruments.

A DRAUGHTSMAN, writing to a technical journal, makes some pertinent remarks upon the manner in which drawing instruments should be made that are well worth reproducing. In regard to the absurdity of putting unnecessary and awkward ornamentation on drawing instruments, he says:

"Your correspondent, in a recent issue, spoke of numerous angles, projections, etc., on drawing instruments, and thought they should be removed. He is quite right. It seems to be one of the delights of Swiss makers to put them on their tools—the higher the price of the tool, the more angles, etc., you get. Swiss makers residing in this country do the same thing, and others copy from them. These little projections are neither pleasant to the touch, nor cleanly, and they are utterly without use except to run up the expense of the instrument.

"When the perfect American tool is made by Americans, I hope to see an ideal instrument, with, for instance, each leg of the dividers a pretty taper from the stiff joint to the point, with all necessary projections nicely rounded off, and never cut in, as the Swiss make theirs. Another thing which seemed most peculiar to me is the notch about half way down the leg of a pair of good Swiss dividers, cutting the leg about half off, utterly regardless of consequence as to springing. If that thin part is strong enough (for the weakest part represents the strength of a tool) then why not reduce the remaining parts accordingly?

"The nicest tools I have handled were a set of Swiss dividers (pen and pencil), which had been carefully filed down from their former selves, and nicely rounded up on all sides of the leg. The hand could move from one end to the other without encountering any harsh projection, and it was a pleasure to work with them. The matter should be investigated by the manufacturers."

Correspondence.

CHICAGO, February 29, 1884.

To the Editor of the *Inland Architect and Builder*:

Can I trespass upon a little space in your interesting journal to express a want that I think has been in the minds of most Chicago architects for a long time, but each one, from lack of time or some other cause, is waiting for some one else to take the initiatory step in the direction of supplying that want,—which is an association of architects in this city. We are far behind many less important cities in this respect, and should organize at once a strong, vigorous society of that character, and enroll as its members all worthy Chicago architects. Such a society would be of unlimited benefit to the younger members of the profession, and if the older and more experienced heads will join in the enterprise, and have for their motto "Docendo dicimus," they will be benefited as well as the rest.

The interchange of thought and ideas, and clashing of opinion, is just what we want in the profession for mutual benefit, and to elevate the standard of Chicago architecture. By uniting as before mentioned, we can, at a very small expense, procure rooms and enjoy the benefits of lecture courses, scientific researches, competitive designing, etc. etc., in the interest of our art.

And in looking still farther into the future and possibilities of such an association, I can see it installed in a building of its own (a model of architectural beauty), built by a stock syndicate formed of all the members of the association. When we can rise to this point, and by building the right kind of a building, the association would be more than self-sustaining, and by judicious financial management would pay a fair percentage in dividends to the stockholders besides.

I think THE INLAND ARCHITECT AND BUILDER is the best medium through which the above suggestion may be brought to tangible results; and if it will make the attempt, I feel sure that it will receive support on every hand.

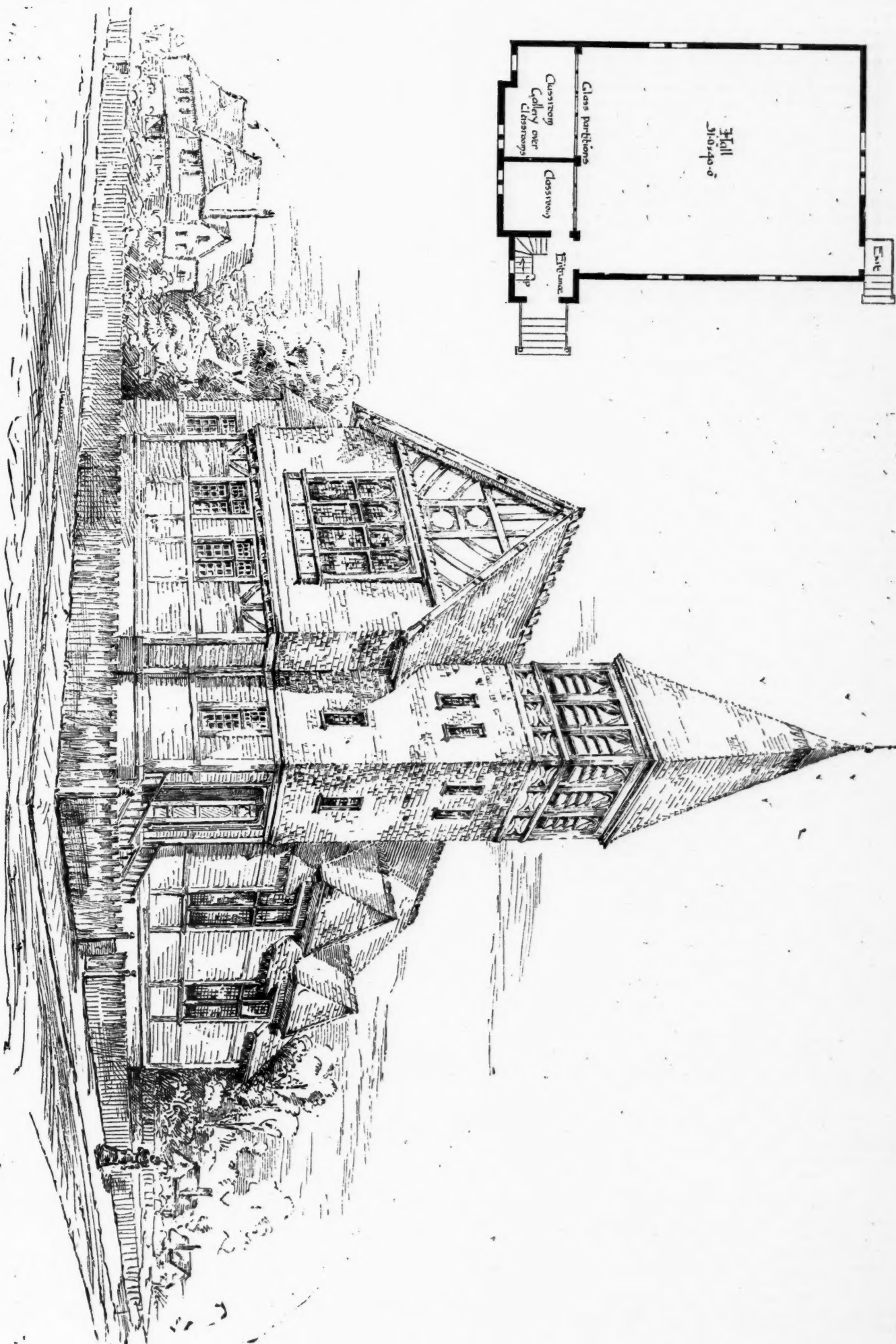
Respectfully submitted.

H. R. WILSON, Archt.

We print the above with the hope that something tangible may result therefrom. Architects can rely upon the assistance and coöperation of this journal in the promotion of any measure that has for its object the present or future good of the profession. Our correspondent outlines a course of procedure that seems to be approaching almost a necessity for the profession to follow in Chicago, and we hope for further expression from architects, and earnest thought at least, for the present, if not immediate action.—[ED.]

COMMISSIONER CREGIER has let contracts for the carpentry and marble work upon the city hall building. Luddell & Messinger are the lowest bidders, and the accepted contractors for the carpentry, the figure being \$74,704, and the Burlington Marble Company supply the marble for \$43,000, each contractor furnishing a \$25,000 bond that no convict labor shall be used on the work.

WOODLAWN PRESBYTERIAN CHAPEL.—Harry Lawrie, Architect, Chicago.



New Publications.

THE ORNAMENTAL ARTS OF JAPAN. Illustrated with one hundred plates, seventy in colors and gold, with general descriptive text. By GEORGE ASHDOWN AUDSLEY, F.R.I.B.A., etc. New York: CHARLES SCRIBNER & SONS.

This unique and important work on oriental art of which the prospectus has been received, which also exhibits twenty-five of the plates to be included in the work, will be a genuine surprise and a delight to every person interested in art or art portraiture. The American edition will consist of two folio volumes, containing one hundred plates, and will be issued in four parts, inclosed in portfolios, at intervals of about six months. The work will be supplied to subscribers only. For artist's proof copies, which will be printed on Japanese paper, and of which but sixty copies will be printed, the price is \$300, and for general copies, of which five hundred will be printed, \$150 is the price. As far as the prospectus and the proofsheets can show, this work is exceptionally the richest art work ever placed in the American market, some of the chromo-lithography, which is by the famous M. Lemerrier, of Paris, being in advance of anything produced even by this the prince of lithographers. As the purposes of the work are the illustration of the more important branches of the art industries of Japan, the work cannot but be of the highest value, not alone to the lovers of art for art's sake, but to decorators and designers in all branches of art manufacture.

The Art Interchange, of February 14, contains a beautiful design in color—"The Butterfly Fairy." It shows a beautiful cupid being driven through the clouds by a multitude of brilliantly colored butterflies; a very charming design, which is especially adapted to painting upon silk or satin. It would make a beautiful fan mount, or could be used to advantage on a lamp-shade or wall-hanging. Other attractive illustrations are six designs for a fish set, a crab apple design for a panel, and another, from the Royal School of Art Needlework at South Kensington, for sketching on linen. A charming woodland scene is given as a suggestion for crayon work, and another (an artistic marine) as a study for pen-and-ink sketch. A beautiful border design for embroidery, from the Royal School of Art Needlework, at South Kensington, England, is another example of good design. In the "Notes and Queries" department, house decoration, oil, mineral and water-color painting, brass hammering, and kindred art topics, are intelligently discussed. The "Open Questions"—for best answers to which a prize of five dollars is given—deal in this issue with the advisability of opening art galleries to the public on Sundays. A charming plaque design in color, by Walter Satterlee, appeared in the issue of February 28. This issue also contained a beautiful study in black and white of the scarlet African Hibiscus; a design for bellows in brass repousse work; an exquisite picture showing a deer in a winter forest; besides floral designs for tiles, etc. Sample copies of this admirable art journal will be sent upon receipt of 10 cents. Address William Whitlock, 140 Nassau street, New York.

Mosaics.

AN electric lighter for \$5 is being sold by the Eastern Electric Mfg. Co., of Boston, Mass.

JAPANESE STAINED GLASS.—A new feature in stained-glass manufacture will be furnished the Tobey Building by Healy & Millet. The contract is an extensive one, calling for an outlay of \$1,290.

THE W. H. Wells & Bro. Co. have complete the stained glass and mural windows for an Episcopal church on Grand avenue, St. Louis, at a cost of \$8,000, said to be a fine exhibition of stained-glass work.

In addition to the drainage system and the gasfitting contracts, the Durham House Drainage Co. have taken the contract for the plumbing in the new Pullman Office building, and for West's hotel, at Minneapolis.

THE hardware firm of Jones Stebbins, located in this city since 1859, have removed to 231 State street, where they have materially increased their stock of builders' hardware, and their facilities for supplying the trade at this central location.

In a recent issue an excellent pneumatic bell for elevators was spoken of, and by mistake the name was incorrect. The Zindar air-bell is the only air-bell made, and has attracted the attention of builders and architects throughout the country, as it acts wholly by a compression of air and does not require the use of electric batteries, as in other devices.

INFORMATION concerning the property of the Brownell Slate and Flagging Company is given in a pamphlet with that title, sent out by the office of the company at Boston, from which it seems that the extent of the slate quarries of Vermont for the supplying of building slate, and for flagging purposes, is probably only limited by the ability of the company to quarry.

THE patent compressed lead sash-weights are to be used in Pullman's Palace Car Company's Office building. These sash-weights are extra heavy and being center-balanced and adapted to almost any style of casing where ordinary weights are not available, they are fast becoming popular among builders who appreciate a perfect-acting and noiseless weight.

THE Northwestern Terra-Cotta Works are making a new description of terra-cotta that will supersede all others where the face is exposed to water. It is a semi-glaze that prevents the water soaking into it, and gives it a permanent gloss and finish. The works of this company now employ about two hundred and twenty-five men, including some excellent designers.

THE Walworth strong, sensitive automatic sprinkler is a self-acting sprinkler, for use in mills and factories, etc., where a constant supply of water is necessary for the extinguishing of fires. The heat softens a solder ring which confines an automatic cock, and water, from a tank in the roof, is sprinkled in all directions. Messrs. Hay & Prentice are the agents for this excellent device, in Chicago.

MR. J. S. BAST, of this city, having satisfactorily fulfilled his contract with the Cotton Exchange of New Orleans, La., for the entire office fittings, including partitions, desks, tables, chairs, etc., has been favored

with a similar order from the Louisiana Sugar Exchange of the same city. Mr. Bast also designed and manufactured the vestibule, doors and partitions in the Louisiana Club building, which is considered one of the finest club houses in New Orleans.

THE firm of S. S. Streator, known as the Globe Ironworks, and among architects credited with the production of some of the best architectural ironwork in use, have recently built and are occupying a large building devoted exclusively to the production of wrought and cast forms in iron, shutters, metallic window sash, the latter being a specialty. Among recent contracts, the ironwork of the Las Vegas, N. M., jail, the State capitol at Indianapolis, the new treasury vaults at Chicago and Philadelphia, and other like contracts for public and private buildings.

WE are informed that among the recent decisions in patent cases was one by the Supreme Court of the United States, in the case of J. A. Fay & Co. vs. Cordesman & Egan Co., of Cincinnati, Ohio. It appears suit was brought, about eight years ago, for an alleged infringement of three patents on Band Sawing Machine, and after having been decided in favor of Cordesman & Egan Co., in the lower courts, was appealed to the supreme court, which, we are informed, has just affirmed the opinion of the court below, to the effect that not a single point of either patent has been infringed upon.

T. L. JOHNSON, the representative of Messrs. Keuffel & Esser, of New York, has been remarkably successful in introducing the celebrated excelsior tapes of this firm's manufacture. A representative of THE INLAND ARCHITECT AND BUILDER was present when one of the engineers of a large railway corporation (Mr. Randolph) spoke of these tapes as being the best steel tapes made for engineers' use, volunteering to recommend them in any way required. It is valuable for engineers to know that the Excelsior is thoroughly reliable, and it is pleasant to find them represented by a firm so well known as K. & E., of New York.

THE following circular letter has just been issued by M. Benner & Co., and will be of interest to our readers:

THE BENNER & CO. IRONWORKS.

CHICAGO, March 20, 1884.

Having recently moved to our new and commodious quarters at 260-264 South Jefferson street, we are now prepared to manufacture and furnish structural and ornamental ironwork of every description.

Store fronts, riveted girders, columns, iron doors, railings, sash and gratings, air grates, anchors, iron roofs, jail work, stairways, shutter gates, crestings, verandas, etc. Building anchors of all kinds in stock.

We will continue to make a specialty of the Combination Ice-proof Fire Escape and Stand Pipe, and have just contracted for the sole right to manufacture and control the Cowles' patent fire-proof wire screen shutter; also, we shall make a specialty of soft grey iron castings after May 1. Estimates made on all classes of ironwork.

Yours respectfully,

M. BENNER & CO., 260-264 S. Jefferson Street.

THAT the plumbing and sanitary features of residences and public buildings are becoming of first importance in the public mind and that the manufacturers are fully up to the times in their efforts to supply the demand, no one can doubt who has visited the office on Adams street, opposite the customhouse, recently fitted up by the Myer & Sniffin Co., of New York, as the western office of this house. To begin to describe the decoration of the walls, artistically painted in olives and bronzes, the fittings of cherry, the stained glass and upholstery that harmonizes so perfectly with it, would be beyond the scope of a brief notice; but H. Edgar Hartwell, one of New York's first decorators, has placed a sample of his decorative ability in this office that is of no mean order. The different closets, baths, etc., made by the Myer-Sniffin Co., are exhibited in such shape as to impress the observer with the exceptional facility with which the plumbing of a house may be placed, making it clean and wholesome as any other piece of furniture. As the fitting up of this office cost upward of \$8,000, it is not too much to say that it should be inspected not only by the building professions, but citizens generally.

IMPROVED taste in selecting furniture and decorations for public and private buildings, demands something novel, as well as useful and ornamental, in steam radiators for warming the same. The "Bundy radiator" meets these requirements, and excels in its appearance and advantages, without the objectionable features of some radiators that are on the market. The accepted type of a first-class radiator is a vertical tube, return bend radiator, with joints that cannot be affected by unequal expansion and contraction of the tubes. The connections and tubes should be large enough to allow free circulation of steam, and the tubes or loops should be so formed, that a narrow, wide, circular column, triangle or corner radiator could be made so that the circulation would be the same in each loop, and not leave "cold pipes," and have the heating surface evenly distributed over the whole base of the radiator. These are the peculiar features of the "Bundy radiator." Each loop is screwed independently into the base by a two and one-fourth inch connection, making a quick and durable heater with one-third the number of connections required for the same amount of heating surface found in the vertical tube wrought iron radiators, it is claimed. Hundreds of "Bundy radiators" that have been in use for a long time, have been changed into higher or lower radiators, where circumstances required them to be placed in front of low windows, or where it was found necessary to increase the amount of heating surface of low radiators, by simply removing the loops and substituting longer or shorter ones as the occasion required, thereby saving largely in the expense and trouble of making the change. It is frequently the case that a change in the heights of radiators is found necessary by the architect of a building, after the radiators are made, and the facility with which it can be done with the "Bundy radiator," is a very important matter to owner, architect or steam-fitter. These radiators can be taken apart to be shipped and rebuilt at building, or for export, or for repairs. The manufacturers of these radiators do not take contracts for steam heating, but furnish them to the trade only throughout this country and for export, so that every reliable steam heating concern can get them at the lowest market price, and any architect can specify them, knowing that a fair competition of bids can be made for the steam heating. Full descriptive catalogues can be had of leading steam heating contractors, or of the A. A. Griffing Iron Co., Jersey City, New Jersey.



COURTHOUSE AT MARSHALLTOWN, IOWA.—J. C. Cochrane, Architect, Chicago.

Inventive Genius in Building.

- 292,505. Chimney-top. Nicolai Petersen, Chicago, Ill.
 292,574. Hinge. William Patterson, San Francisco, Cal.
 292,650. Shading-Pencil. George Baptiste Hecklinger, Streator, Ill.
 292,670. Sash-holder. Wm. A. McDonald, Minneapolis, Minn.
 292,686. Elevator Stop Mechanism. Frank Scooneas, Detroit, Mich.
 292,738. Skylight. John Ehrhardt, St. Louis, Mo.
 292,887. Tile or Block for finishing inside walls. Jas. Austin, Detroit, Mich.
 292,918. Water-closet. John Kelly, Chicago, Ill.
 293,028. Ventilated Show-window. Samuel E. Hyndman, Cincinnati, O.
 293,038. Elevator. August Kieckhefer, Milwaukee, Wis.
 293,043. Draught-Regulator for pipes, flues and ventilators. Louis Young Lenhart, Red Wing, Minn.
 293,058. Screw-clamp. Frank A. Moore, Louisville, Ky.
 293,097. Dove-tailing machine. John Schmidt, Burlington, Iowa.
 293,099. Window sash. Wm. A. Sinsel, Waukesha, Wis.
 293,100. Sash-cord Fastener. Wm. A. Sinsel, Waukesha, Wis.
 293,175. Pipe-wrench. Jas. Jewell, Grandville, Mich.
 293,248. Combined Lock and Latch. Anderson D. Holland, Newport, Ark.
 293,260. Apparatus for Heating and Ventilating buildings. James H. Manny, Chicago, Ill.
 293,305. Attachment for Water-closets. Luther H. Burnett, Chicago, Ill.
 293,385. Weather-strip. David Warnock, Olathe, Kan.
 293,413. Weather-strip. Gustav Burkhardt, Homer, Ill.
 293,473. Tile machine. Philip Henry Kells, Adrian, Mich.
 293,497. Rule and Try-Square. Wiley N. Nash, Starkville, Miss.
 293,527. Window-sash. Henry W. Schroder, Springfield, O.
 293,554. Sash-cord Fastener. Henry L. Blodgett, Chicago, Ill.
 293,596. Brick machine. Robert N. Ross, St. Louis, Mo.
 293,598. Door-hanger. Joseph E. Schmid, Buffalo, N. Y.
 293,612. Lighting-Diffuser. Leonidas G. Woolley, Indianapolis, Ind.
 293,617. Protecting Buildings from Vermin, Fire, etc. Frederick W. Bartlett, Buffalo, N. Y.
 293,627. Fire-Escape. Spencer D. Butler, Marshfield, Ore.
 293,645. File-Holder. Wm. H. Foster, Jeffersonville, Ind.
 293,647. Machinist's Tool. Fred. I. Getty and Frederick Dickinson, Geneva, O.

Synopsis of Building News.

Aurora, Ill.—The outlook is fair, principally for moderate sized dwellings and tenements.

Architect J. Mulvey: For A. Somarindyk, two-stories and basement store, brick, tin roof, 22 by 67 feet, to cost \$5,000; projected. Addition to library building, one-story and basement, stone, shingle roof, 44 by 44 feet, to cost \$4,000; projected. For J. C. Hanna, two-story dwelling, wood, shingle roof, 34 by 48 feet, to cost \$4,000; under way. For George Hanna, two-story dwelling, wood, shingle roof, 34 by 58 feet, to cost \$4,500; plans finished. For D. A. Town, Earlville, Ill., two-story dwelling, wood, shingle roof, 42 by 60 feet, to cost \$6,000; under contract, Thomas & Hugh, contractors, Ottawa, Ill.

Bellevue, Ill.—The Eureka Glass Company, which was recently incorporated, with a capital stock of \$25,000, has purchased four acres of land in the West End, upon which it is proposed to erect a factory. The work will be commenced as soon as the weather will permit. C. H. Billings, L. Candee and F. W. Putnam are the principal stockholders.

Burlington, Ia.—The outlook for building is favorable, and with good weather and an early spring it will be very good along the river towns.

Architect C. A. Dunham: For John Burnham, flaxseed ware-room, 35 by 50 feet, to cost \$4,000; under way. For P. A. Andre, store, double point, three stories, 39 by 28 and 100 feet, to cost \$25,000; under way. For S. B. Little, frame residence, to cost \$5,000; under way. For S. B. Robbins, builder. For Wm. Selles, brick residence, to cost \$10,000; being let. For John Bial, Jr., brick dwelling, to cost \$4,500; being let. For W. C. McArthur, frame cottage, to cost \$2,500; being let. For Mr. Chittenden, brick dwelling-house, to cost \$7,000; E. F. Evans, builder. Brick school-house, at Leffler station, to cost \$5,000; being let. For C. S. Pond, Keokuk, Ia., frame dwelling, to cost \$7,000; being let. For J. T. Perkins, Keokuk, Ia., frame dwelling, to cost \$4,500; Robert Burns, builder. For C. B. Finch, Kearney, Neb., frame dwelling, to cost \$8,000; being let. For C. H. Farnsworth, Albert Lea, Minn., frame dwelling, to cost \$3,500; being let. For B. D. Harper, Greeley, Col., brick dwelling, to cost \$7,000; being let. Episcopal church, this city, 40 by 62 feet, to cost \$12,000; Baptist church, ditto, 61 by 85 feet, to cost \$20,000; being let; M. E. church, ditto, 100 by 140 feet, to cost \$70,000; plans in preparation. For L. D. Sheppard, Keokuk, Ia., frame dwelling, to cost \$6,000; partly enclosed; Robert Burns, builder. For A. H. Evans, ditto, frame dwelling, to cost \$6,500; partly enclosed; Robt. Burns, builder. All the foregoing mentioned buildings architect Dunham has had since January 1, 1884, except the two last named.

Cedar Rapids, Ia.—One of the most important enterprises which will inaugurate the spring work is the Masonic library building. The foundation is in. The plans, prepared by architects Foster & Lebbe, are now ready for the contractors. The building will be put up with front and rear parts. The front part will be two full stories with basement, and is to be ornamented with a handsome tower. The rear will be a plain building, also two stories high. The basement of the front part will be used for storage purposes. On the first floor will be the reception room, packing room, elevators, closets and halls. On the second floor will be suites of rooms for the Grand Master and Grand Secretary. This part is to be built of brick and stone, and is to be 40 by 41 feet in size. The library building will be 30 by 58 feet on the inside. The shelves will be arranged about as they are in the State library, and there will be room for 25,000 volumes. The second floor will be used for an art gallery and museum until it is needed for the library. It can be arranged to hold the same as the first floor, which would make the capacity of the building 50,000 volumes. The library will be made fireproof, and the whole building will be first-class. The contracts were let on the 20th inst., but too late for insertion in this issue.

Chicago, Ill.—From every point of view the building outlook in Chicago during the ensuing season bids fair to largely exceed that of any year since the fire of 1871. The building department of the city government reports that at no previous time in the history of the city was there such immense sums of money going into the stupendous business structures in one season. As an enthusiastic but conservative contemporary puts it:

"All these things point anew to the marvelous growth and prosperity of this wonderful western metropolis. Millions are going into the improvement of real estate, millions more into the expansion and development of the city's commerce, and untold millions more are ready to leap into the business vortex as the occasion offers and the need demands. It is no hazardous prediction to make that in 1890 the census will give Chicago 1,000,000 of inhabitants and a property valuation away up in the billions. And this will be the creation of little more than half a century. Was the like of it ever seen before in the world's history?"

In the interval since our last issue, something more than a mere ripple of excitement was caused in all business circles by the county board making a contract with a firm, composed in part of local politicians, granting them permission to rummage the records of Cook county for the purpose of hunting up all the intangible evidences of value they could find, and having the owners thereof heavily taxed thereon. According to the arrangement made, the tax-hunters were to get twenty per cent of all that might be collected. The result of this was that the county would get nothing from these taxes. Out of a tax of \$5 on the \$100 the city would get about \$3.50, the county about 80 cents, and the remainder go to the state, the town and the parks. On every \$5 collected, therefore, the county would pay \$1 to the collecting firm and have nothing left for itself, the 80 cents to which it ordinarily would be entitled having been turned over to the tax-hunter. The scheme, which so strongly partook of a blackmailing character, raised a storm of indignation; the press at once took it up and showed that its effect on the prosperity of the city, present and future, would fall like a blight, drive away capital, produce stagnation, dwarf business, and stop the rapidly expanding growth of the city; and so great was the clamor raised, that the county board felt compelled to rescind its action, and the matter now rests with the judiciary committee of the board. It is safe to say that the scheme, so full of seeming iniquity, has received its quietus. In regard to the large number of building permits which have been issued during the past two or three weeks for lofty business structures, some of these have been accelerated by the contemplated action of the council to compel the owners of all

lofty buildings to make them absolutely fire-proof or to restrict their height. Be this as it may, the buildings of this character already put up have been built in the best possible manner, and as nearly fire-proof as possible. All the architects are extremely busy, and where they speak of one building that can be published, they have at least four or five on the boards about which they can tell nothing. The indications point to the building of fewer flats this season, and a much larger number than heretofore of small houses. The large number of lofty and costly business blocks, however, which will be put under way by the 1st of May have not only attracted wide attention but have excited both surprise and admiration. As an individual enterprise, Mr. Marshall Field is to erect on the vacant lot, southwest corner of Monroe and La Salle streets, an eleven-story building, to cost \$400,000. S. S. Beman is the architect. The Gaff building, S. V. Shipman, architect, is to be ten stories and to cost \$100,000. Three leading architects have submitted plans for a \$200,000 building for the Home Insurance Company. The Armour, Kent & Bensley building, plans for which were drawn by architects Burnham & Root a year ago, to be built in the immediate vicinity of the new Board of Trade building, to be eleven stories high, and will cost, when completed, \$1,000,000, will be immediately commenced. The building to be built as soon as a stock company is formed by Mr. W. K. Nixon, upon a lot recently leased by J. Mason Loomis, will be pushed rapidly, the proposed cost being about \$200,000. The Continental building, adjoining the Continental building on Dearborn street, near Monroe, is to be nine stories high. Mr. Geo. E. Edbrooke is the architect for Messrs. Cooper & Carson, the owners; it will cost \$200,000. The foundations of this building are now being laid. Another fine building, of which Messrs. Burnham & Root are the architects, is the John Quincy Adams ten-story office-building, 116 and 118 Dearborn street, to cost \$135,000. Messrs. Cobb & Frost are the architects of the new opera house to take the place of the unsightly Exchange Building on the southwest corner of Washington and Clark streets. This structure will be nine stories in height, and cost \$500,000. Work will probably commence on this building some time in May, though the question of tearing down the old building is not yet settled. The Cray building, J. M. Van Osdel, architect, is to be another fine improvement. All the above buildings will be carried forward at an early day, as far as can be foreseen at the present time, while a proposed building for the Imperial Insurance Company of London is one of the possibilities. McNeill office-building, plans for which have been prepared by architect York, but are as yet in an embryo state, are but rumors as far as the element of news is concerned. Of the above stupendous structures nine have been definitely determined upon, and cost in the aggregate the sum of \$2,935,000. All these buildings are to be erected in the business center of the city. The wand of the magician, or the spell of a talisman, ne'er effected changes like these; nay, even Aladdin's lamp never performed greater wonders. There is no place in this land—no other city on this continent—where such a record can be made. There is no other place in this broad land where trade has increased in like proportion. What has produced this great prosperity? We answer, the great natural advantages of Chicago and the untiring enterprise of its citizens. Its situation is unsurpassed by any in the land.

Architects Cobb & Frost have plans about ready (with some finished) for several handsome suburban residences. A summer house for Mr. Geo. C. Walker, at Geneva Lake, Wis., now approaching completion, is 63 by 100 feet, basement and three stories. The basement is constructed of rough lake boulders, and the superstructure is entirely of shingles. The house has a broad piazza on three sides, and on the southwest corner is a projecting bay, with a piazza following its line, commanding a splendid view of the entire lake. The lower part of the house is most conveniently arranged and the upper part is divided into numerous spacious chambers, with the view of enabling Mr. Walker to entertain many friends in the style he desires. Also a house for Mr. F. O. Lyman, at Winnetka, which will also be upon a bluff overlooking the lake. It will be basement and three stories high, and will be simple but attractive in design. It will set low in the ground, and will have a very low roof running around. The parlor, dining-room, kitchen, hall, and library will be on the first floor, and a number of bedrooms above. This house will also be finished in the spring. Also a house soon to be erected for Mr. Arthur Orr, Jr., at Evanston. It will be 40 by 70 feet, with a basement of brick and a superstructure of shingles. It will have an odd, attractive hall, with a large, cozy inglenook, taking in a square bay in the southeast corner, cut off from the hall by a stairway. The rest of the interior arrangement will be unusually convenient and comfortable. Also the same firm are about to build a picturesque country-house at Kenwood for Mr. C. V. Marsh. It will be 25 by 60 feet, three stories high, and the entire exterior finish from top to bottom will be shingles. Messrs. Cobb & Frost will also build at Kenwood two houses for Mr. O. W. Potter. They will be each 30 by 60 feet, three stories high, and will have Anderson pressed brick fronts. The exterior and interior finish will be similar, and will form a pretty group. One of the handsomest sets of designs these architects now have in hand is for a country-place at Sodus Point, Lake Erie, near Rochester, for a New Yorker. Especial attention has been paid to the laying out of all the buildings with an eye to the general effect of the group, which will consist of a house, a barn, a porter's lodge, a boat, billiard and bowling house, and an ornamental windmill high up on a hill. These buildings will all be finished this spring.

Architects Burnham & Root have made plans for a residence for Mr. J. H. Pearson, on Adams street, near Laflin, and also for a residence for Mr. Turner at Oak Park.

Architects Holabird & Roach: For Ravenswood Historical Society, a two-story brick, 40 by 60 feet, to cost \$5,500; projected. One-story frame station at Belle Plaine, Ill., 30 by 50 feet, to cost \$2,000; under way. For R. H. Taggart, a three-story flat on Drexel Boulevard, Louisville brick, pressed front, 30 by 57 feet, to cost \$8,000; under construction. For Wm. O'Brien, three stories, flats, pressed brick front, 24 by 82 feet, to cost \$7,000; under way.

Architect Holberg is preparing some elaborate plans for an alteration of the Brunswick and Balke billiard hall, on Washington street. The present gallery will be taken out, and the bar-room will be placed in the basement, through which the entrance to the billiard hall will be arranged. The decorations on the walls will be especially fine. Ten thousand dollars is to be expended upon it. Mr. Holberg is also engaged on plans for a three-story store and dwelling building, 44 by 92, with eight rooms on each floor, for J. H. Smith. The cost will be \$18,000, and the material pressed brick and brownstone. The same architect is building for himself two houses on La Salle avenue, just above North, to cost \$10,000 each.

Architects Treat & Foltz have prepared plans for a large block of apartment buildings on Van Buren street, near Aberdeen, with stores on the ground floor. The flats will occupy two floors above, and be divided into six and eight rooms. The fronts will be of pressed brick and terra-cotta. The buildings will be constructed for Dr. Matthaei and Messrs. Peterson and Sonne, at a cost of \$35,000, and will be 140 by 80 feet. The same architects have drawn plans for a palatial brown-stone front dwelling for W. J. Watson, to be erected on the corner of Prairie avenue and Twenty-third street, at a cost of \$25,000. It will be in a modified Norman style of architecture. They have also drawn plans for a factory for Messrs. Schneider & Co., 120 by 115 feet, and two stories in height, to be erected at the corner of Twenty-fourth place and McGregor street, at a cost of \$25,000. The same firm will build a four-story store and flat building for E. G. Raymond, at No. 344 State street. It will be 25 by 95 feet and the second story will be arranged for a store. The front will be of pressed brick.

Architect Rehwoldt has made plans for a four-story and basement store and flat building, for Messrs. McLain & Cook, to be erected on Dearborn street, near Harrison. The structure will be 40 by 90 feet, and will have a front of Chicago pressed brick.

The estate of E. O. Hubbard will erect two dwelling-houses on Elm street, at a cost of \$15,000. They will be three stories in height, with basements, and 25 by 80 feet in dimensions. Pressed brick and terra-cotta will be used for the front elevations.

Architect H. O. Hanson has ready the drawings for five eight-room houses, to be erected at the corner of Wells and Hill streets, for Mr. Hallmeyer. They will be of Anderson pressed brick and brownstone.

Tom Mackin, owner of the Revere House, at the corner of Clark and Michigan streets, has plans from architect Carroll for two new stories, to be placed on that building. The material will be tile, iron and slate, so as to make the new addition as light and fireproof as possible. The two new floors will give one hundred more rooms.

Architect John W. Ackerman has under consideration for Dr. T. S. Bidwell and A. M. Evans, four residences, 63 by 75 feet, two stories, cellar and attic, stone trimmings, Anderson pressed brick, West Congress, near Loomis street, to cost \$20,000; under way; Joseph Kavanaugh, builder. For J. O'Brien, stone front residence, two stories and cellar, 25 by 65 feet, West Congress near Laflin, to cost \$6,300; Pfister & Masters, builders. For Lorenz Franz, store building, three stories and basement, stone trimmings, 23 by 73 feet, to cost \$7,500; under way; Gutrick Bros., builders. For Geo. H. Ackermann, double store building, 50 by 60 feet, two stories, Anderson pressed brick, stone trimmings, cor. Polk and Western avenues, to cost 9,000; under way; J. B. McKay, builder. For Fred. Emmerick, double store building, three stories and basement, Archer avenue and Logan street, 39 by 100 feet; under way; Joseph Kavanaugh, builder. For Charles Follansbee, carriage factory, three stories and basement, 50 by 80 feet, cor. State and twentieth streets; under way; John M. Dumphy, builder. For John O'Callaghan, store building, three stories and basement, stone trimmings, 23 by 60 feet, Chicago ave., near Market, to cost \$7,000; projected. For D. W. Eldred, two residences, three stories and

cellar, slate and mansard roof, cut stone trimmings and Anderson pressed brick, 50 by 42 feet, southwest cor. Pine and Ohio, to cost \$10,000; projected. For Rev. Chas. Elliot, D. D., two residences, two stories and cellar, McArthur brownstone trimmings, 40 by 53 feet, cor. Belden ave. and Orchard street, to cost \$9,000; projected. For J. Richter, residence, three stories and cellar, pressed brick, stone trimmings, 24 by 64 feet, 47 Granger street, to cost \$7,000.

Architect J. H. Huber: For S. A. McDonald, two-story residence, 16 by 39 feet, to cost \$3,500; also two residences, 17 by 70 feet, each two stories and attic, front of Wyoming Valley bluestone, galvanized iron dormer windows and red slate roof, to cost \$15,000; also residence, 13 by 39 feet, two stories and basement, Indiana pressed brick, to cost \$4,000; cor. State and Chestnut streets; owner, Mr. R. Flink; also freight house, 70 by 100 feet, for Robert Law, one-story brick, to cost \$3,000; also for Mr. B. Webber, at Ravenswood, cottage residence, to cost \$2,200; also cottage for Max Fechon, at Lake View, to cost \$1,500.

Architect L. G. Halberg: Plans for residence, 30 by 52 feet, two-story, attic and basement, Indiana pressed brick, with rock-faced brownstone trimmings, double verandah and corrugated tower, on Belmont avenue, to cost \$7,000; also plans for a good store and flat building for Mr. J. H. Smith, to be erected on the cor. of Wells and Elm. The structure will be 44 by 90 feet, three stories in height, and will have a pressed-brick front and side. The building will be divided up into two stores and four flats, the latter having eight rooms each. They will have pilaster trimmings, and will be otherwise well finished. Complete, the building will cost \$15,000.

Architect G. P. Randall: Plans for a brick schoolhouse, 64 by 55 feet, two stories, at Marion, O., to cost about \$15,000; also a three-room frame schoolhouse at Cresswell, Mich., to cost about \$8,000.

Architect Fred Kettenich: For Mrs. Wm. Klinger's three-story and basement residence, basement rubble and cement floor, 22½ by 64 feet, to cost \$7,500; under way. For Mrs. C. Miller, three stories and basement for store, 25 by 75 feet, to cost \$6,000; under way. For Mrs. A. Fuehlke, two-story and basement store, 22 by 65 feet, to cost \$4,200; under way. For C. Ambruster, three flats of brick, with barn 22 by 62 feet, to cost \$6,600; under way. For F. Barges, a two-story and basement brick store, 22 by 75 feet, to cost \$4,400; under way. For C. Caija, three houses, each three stories high and basement, of brick, 24 by 75 feet, to cost \$13,500; projected. For Fred Gieck, a three-story brick residence, 22 by 30 feet, to cost \$5,500. For C. Lohencres, a three-story brick and attic, 23 by 65 feet, to cost \$10,500; projected. For Mrs. Bird, two-story brick and basement, 22 by 35 feet, to cost \$2,200; projected. For P. Hegham, two flats and attic, frame building, 22 by 60 feet, to cost \$2,400; projected. For A. Weber, two stores, 22 by 50 feet, to cost \$4,000; under way. For H. Felsmann, double house, two stories and basement, brick, 40 by 45 feet, to cost \$6,500; projected. For Jacob Linian, two-story and basement brick (an addition building), 22 by 32 feet, to cost \$2,500; under way. For F. Halpuah, three-story and attic, brick, 25 by 66 feet, to cost \$11,500; under way. For C. Caija, for stores and hall, 43 by 110 feet, to cost \$15,000; projected. For A. Church, large brick hall, 65 by 135 feet, to cost \$24,000; projected.

Mr. Robert Parker, contractor, is building for himself a double residence at 3747 and 3749 Lake avenue, of brick, two stories and basement, 40 by 52 feet. It will be in East-lake style, to cost about \$9,000.

Architect G. S. Spohr is building an elegant frame house at Bloomington, Ill., for Geo. McIntosh, two stories with basement and attic, 38 by 60 feet, to cost \$15,000. The hall will be finished in oak, windows of stained glass, and the entire building will be heated by steam. Also at La Grange, Ill., for P. G. Johnson, frame house, 30 by 50 feet, two stories and basement, Gothic roof, Queen Anne style, the whole to be heated by steam, to cost \$4,000. Also, three-story and attic house on Wells and Oak streets, of Anderson pressed brick, front of stone with terra cotta trimmings, 27 by 70 feet, to cost \$8,000.

Architect H. R. Wilson: For Geo. W. Parke, brick and stone combination, two stories and cellar, 20 by 45 feet, to cost \$5,000; under way. Geo. Lehman & Co., builders: For W. H. Hafner, a stone and brick building, three stories, 22 by 40 feet, to cost \$6,000; projected. For Sam'l Burroughs, a stone and brick building, two stories and cellar, to include four houses, 75 by 50 feet each, to cost \$16,000; projected. For W. H. Durant, a stone and brick building, three stories and cellar, to cost \$5,000; under way; daywork.

Architects Edbrooke & Burnham: For A. Leonard, Mount Leonard, Mo., fine brick residence, 45 by 45, two stories and cellar, with high roof, Elizabethan architecture with rich and ornate detail; plans just completed; cost \$20,000. For C. W. Pierce, two semi-detached villas, 40 by 50, frame, two stories and cellar, on Prairie ave., near forty-second street, Hyde Park; plans just completed; cost \$6,000. For Mrs. L. A. Herrick, fine pressed-brick residence, 30 by 76, trimmed with brownstone, Renaissance style; plans being perfected; cost \$15,000. For Jas. S. Kirk & Co., addition, 108 by 130, to their extensive establishment on North Water street; also machinery and boiler house, 60 by 108; contracts let and work commenced; Thomas Nicholson, mason, Alexander White, carpenter; cost \$80,000. For C. H. Nix, hotel at Ft. Wayne, Ind., five stories and basement, 125 by 150, 150 rooms and all modern improvements; plans being completed; cost \$150,000. For Gibbs & Caulkins, two frame cottages, 20 by 48 each, on Michigan ave., near Sixty-third street; plans being completed; cost \$5,000. For Oriental Consistory (Masonic), in American Express building, hall, parlors, and quarters in general, in oriental detail and decoration; cost \$10,000; decorations by P. Almini. For W. J. Edbrooke, residence, three stories and cellar, 25 by 60, cost \$8,000. Capital building for State of Georgia, three stories and basement, 350 by 260, exterior cut-stone, fire-proof, will be ready for estimates about May 1; cost \$1,000,000.

Cincinnati, O.—Outlook for trade is good, but the season is behind on account of the weather. Architect D. S. Schureman informs us that all his work is let separate to the contractors of the different branches, but under his personal supervision.

Architect D. S. Schureman: For Mosler Bros. Safe & Lock Co., a four-story brick, canvas roof, 43 by 120 feet, to cost \$8,500. For Street & Schmidt, furniture, a four-story brick, asphalt roof, 60 by 107 feet, to cost \$14,000. For C. R. Mabley & Co., a four-story brick, iron and stone building, tin roof, 66 by 90 feet, to cost \$29,000. For Commercial Gazette Co., remodeling, five stories, brick, stone and iron, 48 by 120 feet, to cost \$10,000. All the foregoing are under way, and let direct to sub-contractors. For Marcey & Knoblauch, a five-story and basement, iron and brick building, stone basement, 100 by 150 feet, to cost \$27,000; projected. For Mathew Dugan, dwelling-house, two and a half stories, brick, limestone ashlar, 27 by 70 feet, to cost \$7,000; under way. For Tanner's Offal Co., factory for making glue, drying hair, etc., one, two and three stories, stables, office, etc., tin roof, area about 70 by 200 feet, to cost about \$11,000; about completed, except stable. These five are let to sub-contractors. For D. W. Miller Carriage Co., three-story and basement stone and brick building, with gravel and glass roof, irregular area of about 166 by 140 feet, to cost \$37,000. This building is about completed, and has an elevator 14 by 21 feet, and the handsomest office in the city. All of the above work, except the two about complete, Mr. Schureman has made the drawings for since January 1, and the contracts are let for all but one, and that will be done during the present month. In addition to these, he is making sketches for work aggregating \$150,000, which it is not definitely settled who will do, including a Baptist church, to cost \$40,000, and a system of flats estimated to cost \$50,300.

Architect George W. Rapp reports the building prospect for 1884 promises fully as much if not more than that of 1883, and the following work: For Rheinbold, two two and a half story frame dwellings, to be erected on Lyons street, Coryville, O., 35 by 57 feet each, to cost \$4,250 each; projected; also, for same party, same place and street, two two and a half story dwellings, 35 by 57 feet, to cost \$4,700. For Dr. Schmuck, remodeling brick building on Main street, near Canal, to cost \$6,100. For Cincinnati Stamping Co., altering their factory, Pearl and Lawrence streets, \$2,000. For M. Meister, remodeling residence, to cost \$2,000.

Cleveland, O.—Architect C. H. Griese has now in course of erection a large brick church, with Berea stone trimmings, basement of church of Berea stone, at Greensburg, Pa., to cost, when completed, \$32,000; also, a brick church at Arlington, O., with Berea stone trimmings, to cost, when completed, \$12,000; also, a handsome pressed brick church at Brooklyn, N. Y., with stone trimmings, to cost, when completed, \$4,000. Bids opened for a fine brick church with Berea stone trimmings, at Erie, Pa. Basement of Berea stone, rock-faced work. Mr. Griese is now making plans for a large brick structure at Greenville, Pa., with Berea sandstone trimmings, 47 by 78 feet, basement and three stories, for the Thiel college, to cost \$22,000; also, a frame dwelling in Cleveland, to cost \$3,000; a handsome stone dwelling on Euclid avenue, to cost \$20,000, with a barn for same, to cost \$3,000; also, at Euclid, O., a wine cellar, 24 by 100 feet, all stone, to cost \$6,000; also, twenty double dwellings of pressed brick, with marble trimmings, at Pittsburgh, Pa., to cost, each, \$8,000.

Detroit, Mich.—Architect E. E. Myers sends us a photograph of the new city hall to be built at Richmond Va., and of which he is the architect. The building is a handsome and imposing structure, to be built of Virginia granite, rock face. It will be three stories in height, with mansard roof, entirely fire-proof, and will cost, when completed, \$300,000. The size of the building on ground, 140 by 180 feet. The same architect is also handling the following buildings, most of which are in course of construction, and for

some the plans are just being finished: Plan for new court-house at Omaha, Neb., entirely fire-proof, and to cost \$200,000; new court-house at Tiffin, O., to cost \$175,000; Harper Hospital, Detroit, to cost \$100,000; new church at Jacksonville, to cost \$30,000; two stores and Odd-Fellows' hall, Manchester, Ind., to cost \$40,000, besides many other smaller enterprises in different parts of the country. Mr. Myers, perhaps many of our readers will remember, is the architect of the new and costly state capitol building now in process of erection at Austin, Texas, of which Col. Abner Taylor, of this city, is the contractor.

Architects Hess & Raseman have plans for a block of four stores, 80 by 80 feet, two stories high, for Mr. Wm. E. Warriner, on Woodward ave., to cost \$15,000.

Architects Spier & Rohns have plans for a residence for Barnard Stroh, on Elizabeth street, near Hastings. The Polish Catholic congregation will erect a church on St. Aubin avenue, to cost \$62,000. Work will be commenced immediately. The board of education has decided to build a schoolhouse on the south side of German street, between Dubois and Chene streets. The structure will be of brick, 66 by 38, two stories high, and is to cost \$12,000.

Architect A. C. Varney: The prospects are very fair for spring work. For Antoine Moruse, a double brick dwelling, three stories, and two barns, the former 40 by 70 feet, to cost \$15,000. For Mr. Deshotel, two double, frame houses, two stories, 35 by 70 feet, to cost \$10,000. For Charles Swartz, one double frame house, two stories, to cost \$2,500. For Lewis Jones, two-story brick dwelling, to cost \$4,000. For John Waterfall & Son, two brick houses, three stories each, to cost \$10,000. For Benjamin Johnson, two-story brick house, to cost \$2,000. For Mr. Slayton, Tecumseh, Mich., two-story frame house, to cost \$3,500. The last two are under way.

Architect Peter Dederichs has completed the plans of the new St. Mary's Church. He has drawn plans for the following new buildings: A brick store to be erected by Joseph Hencke, corner of Hastings and Lafayette streets. A brick rectory for the Church of the Sacred Heart, corner of Grove and Prospect streets. Two frame dwellings for August Immel, to be built near the corner of Riopelle and Croghan streets. Frame dwelling for Wm. Lorman, to be erected on Elmwood avenue. A parochial residence for St. Peter's German Lutheran church, corner of Chene and Pierce streets. A rectory for the Catholic Church in Marshall. New Catholic Church in Appleton, Wis., for the Capuchins. Plans have also been drawn by him for a brick addition to Karrer Bros.' store, corner of Monroe avenue and Bates street, which will be raised another story and otherwise improved.

Duluth, Minn.—The citizens of the "Zenith City" rejoice that the house committee on public buildings and grounds have agreed to recommend the erection there of a public building to cost \$100,000.

Frankfort, Ind.—The present outlook is not so favorable as it was a month since.

Architect J. W. Hammond: For J. H. Paris, three-story pressed brick and terra-cotta store building, 23 by 132 feet, to cost \$10,000; under way; sub-contracts. For Robert Wallace, two-story frame dwelling, to cost \$3,000; preparing plans. For Dr. Wilson, two-story frame dwelling, to cost \$3,100.

Goshen, Ind.—The building interest of Goshen will not be so great the coming season as it was last year.

Architect J. N. Jones reports a two-story brick shop, 50 by 100 feet, for Nash, Knox & Hubble, for shop purposes. Scott, Stutzman & McDonald are fitting up a factory with new machinery, etc. Of dwelling-houses there are but few in prospect, and they are small.

Indianapolis, Ind.—The weather being so wintry, it is difficult to predict the building outlook, but it is safe to say that not as much building will be done this year as last.

Architect C. A. Wallingford informs us that bids for the new Indiana hospital at Richmond and Evansville will be received at the Governor's office until April 8, and later on for two more. The city hall commissioners have five plans under consideration for a building to cost \$150,000, and bids will shortly be received on it. A new high school to cost about \$60,000 is now ready for letting. The board of school commissioners have it in charge. A new workhouse to cost about \$40,000 is nearly ready for letting. The city hospital addition of \$3,000 is under way. The state-house will be ready for roofing at the close of the present season. The plumbers and gasfitters have formed a society, and are holding well together. The Indiana Chapter of American Institute of Architects will soon organize. It has already nine members, and will shortly have several more. The Encaustic Tile Works are doing well, having about doubled their capacity each year for four years past. Our terra-cotta works are only nine months in operation, and are compelled to double their capacity. The standard of workmanship in all branches of mechanics is being gradually brought up to a higher degree of perfection.

Kansas City, Mo.—Continued cold weather retards building, but the outlook is decidedly encouraging, more especially of improved architectural pretensions. Architect T. R. Tinsley has several fine examples in his office for this season, but the owners prefer to keep their location and nature to themselves until a start is made.

Architect T. R. Tinsley: For Col. R. H. Hunt, three-story triple brick tenement, 70 by 140 feet, to cost \$13,000; foundation in and each class of work contracted separately. For John Hughes, a two-story fine brick and cut stone residence, 75 by 24 feet, to cost \$9,000; brickwork commenced; builders, Lynch & Hauley. For Dr. Geo. Halley, two-story modern brick dwelling, 60 by 40 feet, to cost \$8,000; foundations laid up; F. Oberdorf, stonework; Hughes & Dugan, cut-stone; rest not contracted yet. For Col. R. H. Hunt, three-story double brick tenement, 46 by 40 feet, to cost \$8,000; foundations in; balance contracted separately. For Diocese of St. Joseph and Kansas City Cathedral, brick and stone, 72 by 170 feet, to cost \$100,000; plastering and inside finish yet to be done; each class of work let separately. For John Hughes, two-story modern brick and stone residence, 75 by 24 feet, to cost \$9,500; foundations in; contractors, Lynch and Hauley. For L. O. Cady, three-story brick tenement, 50 by 44 feet, to cost \$10,000; foundations not completed; builder John Sutherland, builder by the day. For "Capitalist," three-story row of flats, 70 by 40 feet, to cost \$8,500; projected. For Col. R. H. Hunt, a two-story fancy cottage, 45 by 22 feet, to cost \$2,500; almost ready for plastering; work by the day. Dr. Geo. Halley, fancy small stable, 20 by 35 feet, to cost \$2,000; excavations commenced; F. Oberdorf, contractor. For M. L. Sullivan, two-story brick residence, 50 by 30 feet, to cost \$6,000; just completed; each class contracted separately.

Architect H. Probst reports prospects good. For Charles Merriam and Nath'l Thayer, general office building of the K. C. Ft. S. & G. Railroad, to consist of brick and terra-cotta, four stories and basement, 48 by 102 feet, to cost \$55,000; under way; D. Pullman, builder. Synagogue for the Hebrew congregation, brick and stone, 46 by 100 feet, to cost \$18,000; under way. For F. Schutte, private residence, brick and stone, two stories, 33 by 66 feet, \$6,000; excavation under way; also a private two-story frame residence, 22 by 56 feet, to cost \$3,100; projected; also a two-story brick residence, 23 by 60 feet, to cost \$2,300; under way. For R. Gentry, private residence, 25 by 70 feet, to cost \$4,300. For R. W. Ditsch, frame storehouse, 40 by 60 feet, to cost \$1,680; under way.

Lincoln, Neb.—Architect Artemas Roberts: For B. Lombard, Jr., store, three stories, 25 by 100, brick, to cost \$12,000; F. S. Polmin, contractor, nearly completed. For A. P. S. Stewart, store, two stories, 55 by 90, brick, to cost \$5,000; W. B. Hughes, contractor; enclosed. For Mrs. W. J. Bond, store, two stories, 25 by 90, brick, to cost \$5,000; L. F. Peer, contractor; enclosed. For J. W. Winger, store, two stories, 25 by 100, brick, to cost \$7,000; projected. For Hass & Zep, store, two stories, 25 by 30, brick, to cost \$4,000; projected. For Mr. Alexander, store, two stories, 22 by 50, brick, to cost \$3,500; projected. For E. E. Brown, dwelling, two stories, 43 by 56, brick, to cost \$12,000; projected.

Long Branch, N. J.—Building is very dull here on account of the weather, but promises to be good for the summer, which is usually the dull season on the coast.

Architect A. L. Hartwell has the following work in progress of construction: Hotel for Hon. David Davis, at corner Broadway and Ocean avenue, to cost about \$25,000. Cottage at Monmouth Beach for Mrs. Oliver Doud Byron, to cost about \$10,000. At other points, house for Geo. F. Perkins, to cost about \$25,000. Residence for Charles Ridgway, to cost about \$9,000; both the above in Jersey City, N. J. Cottage for Wm. Pintard, Red Bank, N. J., to cost about \$3,000. Hall for H. W. Garrison, Point Pleasant, N. J., to cost about \$5,000. Residence for H. Cook, builder, at Bayhead, N. J., to cost \$4,000. Also in hand the following: Cottage at Nashville, Tenn.; cottage at North Long Branch; cottage and stable at Elberon, N. J., to cost \$15,000 in the aggregate; six cottages at Elberon to cost from \$4,000 to \$10,000 each.

Mankato, Minn.—The outlook for building here and in this vicinity is favorable, and a good deal of small building will be done during the ensuing season. Architect George Pass has his office full of work, although only a small part of it is for Mankato.

Architect George Pass: For John Vandesley, Orange City, Ia., two-story frame residence, 36 by 38 feet, to cost \$2,500; plans made, also frames; contract by daywork

For John Keyser, ditto, one and a half story frame residence, 30 by 30 feet, to cost \$1,800; plans under way. For A. F. Poehler, Henderson, Minn., two-story attic residence, brick, with concrete foundations and slate roof, 42 by 62 feet, to cost \$6,000; plans under way. For Charles Parsons, Mankato, three-story brick residence, stone foundation, cut-stone trimmings, shingle roof, 36 by 22 feet, to cost \$1,500; plans completed; contract not yet let. For First National Bank, two-story store and office building, brick and stone, tin roof, 22 by 80 feet, to cost \$3,300; plans on the boards. For Wagon Bros., two-story and basement store and dwelling, brick and stone, tin roof, steam heated, 22 by 90 feet, to cost \$4,000; plans ordered. For S. Lewis, two-story and basement office building, 22 by 100 feet, to cost \$4,500; projected. For George Foy, one and a half story residence, frame, with stone foundations, 26 by 26 feet, to cost \$1,200; Salesbury & Welch, builders. For Steven Lamb, brick residence, two stories, 40 by 60 feet, to cost \$5,000.

Milwaukee, Wis.—The new addition to the Plankinton House is completed and contains 125 rooms, handsomely frescoed by Almini. The house now will accommodate about 720 guests. The board of public works have issued advertisements for proposals for building the new normal school to be erected by that city. The work is to be completed on the first of December next.

Minneapolis, Minn.—There are probably as many buildings under way in this city as during any previous year. A large number of good-sized substantial foundations were put in late in the fall, and several large cellars are now being put in.

Architect James H. Record: For D. G. Thompson, three stories, tenement house, pressed brick and Ohio sandstone, 44 by 65 feet, to cost \$8,000; will commence April 1. For P. Morgan, double tenement, two stories, asbestos stone front, 37 by 52 feet, to cost \$5,000; under way; Millard & Jenkins, builders. For R. S. Morgan, tenement block of five tenements, two stories, brick and asbestos stone, 42 by 95 feet, to cost \$7,000; under way; Millard & Jenkins, builders. For L. W. Mowry, two-story and basement dwelling, wood construction, 22 by 25 feet, to cost \$3,000; enclosed; contract by day-work. New addition for G. Reynolds, dwelling remodeled, wooden construction, 24 by 56 feet, to cost \$1,000; enclosed; W. W. Obert, builder. Also for same, two-story double tenement, wooden construction, with plate and cathedral windows, 36 by 56 feet, to cost \$5,800; under way; P. E. Barnes & Co., builders. Also for same, two-story frame dwelling, plate glass windows, 16 by 52 feet, to cost \$1,400; enclosed; Wheelock & Taylor, builders. For L. L. Humphrey, three-story frame dwelling, about 26 by 65 feet, to cost \$3,000; foundations in; contract by day-work. All the foregoing improvements, with but two exceptions, were commenced since January 1, 1884.

Omaha, Neb.—Outlook very good at present, and considerable work is spoken of. The season is too cold and work is backward; no brick to start with.

Architect Sidney Smith: For Judge Dundy, a three-story residence, stone and pressed brick, with terra-cotta ornaments; iron roof, style modern Gothic, 48 by 60 feet, to cost \$25,000; building under way; enclosed; Wittinal Bros., masons. For Elmer D. Frank, same kind of a building as the above, only on a smaller scale, 34 by 53 feet, to cost \$10,000; under way; enclosed. For Dr. S. D. Mercer, three-story brick, with stone basement, stone trimmings, iron roof, modern Gothic, with barn, house, 62 by 73 feet, to cost \$30,000; contract let; Ittner Bros., builders. For Messrs. Gardines & Birkhouse, brick tenement, block of six houses, pressed brick, stone trimmings, tin roof, three stories, 38 by 138 feet, to cost \$16,000; contract let; Henry Livesey & Co., and Griffith & Chapin, contractors. For Edwin Davis, brick tenement block, three houses, pressed brick, stone trimmings, tin roof, 38 by 66 feet, to cost \$8,000; under way; builders, same as preceding. For Augustus Pratt, three-story and basement store, stone and terra-cotta, pressed brick front, 22 by 125 feet, to cost \$8,000; under way; A. Rosenbury, builder. For Edwar Lampher, two-story and basement residence, pressed brick, with terra-cotta trimmings, 22 by 80 feet, to cost \$7,000; under way.

Racine, Wis.—Prospects fair, and there will probably be considerable building during the ensuing season. Work has commenced on the excavation for the large Baker block on Market square. The trustees are now making arrangements for the erection of the building.

Toledo, O.—Many mechanics are idle, but there is a fair outlook for the ensuing season.

Architect N. B. Bacon: For D. R. Locke (Petroleum V. Nasby, editor Toledo "Blade") five stories and basement printing building, brick and stone, tin roof, 41 by 92 feet, to cost \$35,000. For Hiatt & Hartup, four stories and cellar (mercantile), brick and stone, 73 by 116 feet, to cost \$28,000. For P. Poland, of Cincinnati, O., two brick tenements, two stories and cellar, 32 by 60 feet, to cost \$11,000. All the above are under way. The following are projected: The Moreton Truck Co., two stories, brick and stone (storage and stables), 60 by 90 feet, to cost \$6,000. For Geo. W. Thomas, three frame tenement houses, two stories and cellar, to cost \$7,000. For D. R. Locke (P. V. N.), brick and stone block, five tenements, tin roof, three stories and cellar, 60 by 100 feet, to cost \$16,000. For Jas. W. Myers, frame block of five tenements, two stories and cellar, 60 by 85 feet, to cost \$5,000.

Topeka, Kan.—Prospects good and the season promises well. Architects Haskell & Wood: For A. Healy, Lawrence, Kan., brick residence, to cost \$10,000. At Arkansas City, Kan., stone schoolhouse, to cost \$12,000. For B. Warkentin, Halstead, Kan., frame residence, to cost \$5,000. For C. W. Van DeMark, Clyde, Kan., frame dwelling, to cost \$3,500. For A. Hadley, Lawrence, Kan., brick residence, to cost \$5,000. For J. T. Hole, Washington, Kan., frame residence, to cost \$3,000. Salina University, Salina, Kan., to cost \$25,000. Schoolhouse at Burlingame, Kan., brick, to cost \$10,000. Extension Co., Bellamy, Col., and Topeka, Kan., a building to cost \$40,000. Emporia College, Emporia, Kan., to cost \$50,000, making a total of \$163,500.

St. Louis, Mo.—The cold weather which has prevailed has set things back about one month, and work on many buildings was suspended for two weeks. The outlook for the season, however, is extremely favorable.

Architect Geo. W. Pipe: For Jno. Bruno, two-story building, 25 by 52 feet, front wall sandstone, side walls brick, composition, half mansard along the front and side, to cost \$7,000; contract let separately. For Edward Pipe, two-story brick front and side walls, 23 by 50 feet, to cost \$4,000. For James Carroll, two-story all brick tenement,

twelve rooms, arranged for four families, 30 by 46 feet, to cost \$3,600; taking estimate upon same; contract not let. For R. Newbury, plans of tenement building to be rented to twelve families, two stories, 95 by 44 feet, to cost \$7,000. For Dr. J. H. McLean, business block and laboratory on Broadway, to cost \$50,000; frontage 120 feet, center; five stories sideways. Residence for Simeon Ray, of brick and cut stone front, to contain nine rooms, and to cost \$20,000. Two houses for Mr. Van Houton, three stories each; cut stone, ten rooms each, to cost \$14,000. Two residences for James Gregory, to cost \$18,000. Four houses for O. H. Bottinger, to cost \$24,000; plans being prepared. A grain elevator at Warrensburg, Mo., for which plans are being prepared, to cost \$10,000; also, an electric light building in East St. Louis, to cost \$5,000, and a good deal of other work which cannot at this time be made public.

Architect W. G. Gaines: For John Dwyer, two-story and mansard roof, stone front, 20 by 56 feet, \$3,000. For Geo. Pendegast, two-story ditto, 23 by 48 feet, \$3,000. For John Dwyer, private dwelling, stone front, 20 by 56 feet, \$4,000. For P. W. Hassett, three-story stone front private dwelling, 22 by 60 feet, to cost \$7,000. For Theo. Rick, private dwelling, two stories and mansard, 21 by 55 feet, to cost \$4,000. All the above are under way. For Dr. Wilcox, three-story dwelling and office, stone and brick front, 34 by 54 feet, to cost \$9,000. For Kuhn & Munges, a three-story building and store, 30 by 68 feet, to cost \$7,500. For P. Mulcahy, row of stone fronts, 75 by 50 feet, to cost \$12,000. For Ed. Brown, two-story tenement house, to contain twelve rooms, 30 by 50 feet, to cost \$4,000; the above four buildings ready to start. For Al. Brankman, two-story tenement, 50 by 50 feet, to contain eighteen rooms, to cost \$7,000; plans under way; also two other sets of plans under way.

Architects P. F. Meagher & Son: For Col. R. D. Hunter, dwelling, with seven-ten rooms, two stories and attic, 63 by 89 feet, to cost \$65,000; nearly finished; sublet. For Thos. McCormack, store building with dwellings above, three stories, 26 by 75 feet, to cost \$15,000; nearly finished. For Mrs. Pabts, three-story dwelling, to contain ten rooms, 22 by 73 feet, to cost \$6,000; nearly finished. The following buildings are under way: For Daniel Daly, three-story dwelling to contain ten rooms, 22 by 65 feet, to cost \$5,200. For John Klay, three-story carriage factory, 27 by 115 feet, to cost \$12,000. For Louis Bader, a three-story store, 28 by 60 feet, to cost \$10,000; also three dwellings, three stories to contain ten rooms each, 20 by 52 feet, to cost \$13,400; projected. For W. R. Rayner, three-story dwelling of ten rooms, 23 by 72 feet, to cost \$6,500. For Henry Good, a six-room dwelling, two stories, 20 by 50 feet, to cost \$3,000; under way.

Architect A. E. Cook: For Jacob Meyer, two stories, twelve rooms, stone front with brick backing, on Lindell avenue, west of Grand, 45 by 73 feet, to cost \$20,000; ready for plaster. The First Congregational Church, broken ashlar stone with Bedford, Ind., cut stone trimmings; excavations down; to be erected on Delaware avenue, west of Grand; plans made by Hurd & Rice, of Boston, Mass., 104 by 118 feet, to cost \$70,000; under way. The above are being built by Mr. A. E. Cook.

Architect Chas. K. Ramsey: For Thomas D. Miller, two-story dwelling-house, brick walls and slate roof, 28 by 45 feet, to cost about \$5,000; projected and plans now in the hands of contractor. For Wm. O. Gibson & Son, a three-story brick store with flats above; cut stone trimmings; plate-glass in store front; flat roof 25 by 87 feet; to cost about \$10,000; projected; plans not yet complete. This architect reports prospects good, and a large number of plans are under way.

Architect F. Wm. Raeder: For Rich Hill Water Works Co., just finished, direct pressure pumping station, which includes a dwelling on second story for pumping engineer; pump with nine miles of piping and cost \$100,000. A similar work is just commenced for the Paola Water Works Co., plant to have six and a half miles of piping, and to cost \$75,000. The Rich Hill Gas Light & Fuel Co. are also projecting works to cost \$30,000.

Architects A. Grable & Co.: For Mrs. Kingsland, a two-story building, basement, mansard slate roof, hardwood finish, 22 by 63 feet, to cost \$9,000. For Mrs. Kingsland and Dr. Moore, a three-story store and office-building, brick and galvanized iron, hardwood and plate-glass finish, in Renaissance, 43 by 90 feet, to cost \$14,000; projected. For Maguire & Hartnett, three-story store and office-building, pressed brick front, galvanized trimmings, modern Colonial style, 23 by 63 feet, to cost \$7,000; projected. For D. G. Futt, alterations of dwelling, two stories, brick, 22 by 36 feet, to cost \$2,600; projected. Also for same, three-story brick and terra cotta, slate roof, basement, hardwood finish and ceilings Renaissance, 25 by 75 feet, to cost \$13,000; projected. The present outlook is very encouraging for all classes of buildings, and we expect to be very busy this season.

St. Paul, Minn.—Season not fairly begun, but the outlook more than promising. Architect A. M. Radcliff: For A. H. Wilde, block of five stories, stone front, 83 by 160 feet, to cost \$100,000. For Jas. S. Burris, block of three stories, brick front, 141 by 60 feet, to cost \$25,000. Syndicate block, three and four stories, brick and stone, 125 by 90 feet, to cost \$90,000. For A. M. Reeves, block of four stories, brick and stone, 67 by 140 feet, to cost \$60,000. For L. Eismenger, block of four stories, brick and stone, 24 by 80 feet, to cost \$20,000. For J. A. Strehlein, block of three stories, brick and stone, 24 by 81 feet, to cost \$8,000. All the above are under way. Rebuilding state prison at Stillwater, Minn., to cost \$110,000. For A. Oppenheimer, a dwelling of brick and stone, to cost \$22,000.

Washington, D. C.—A bill has been introduced in the house by Mr. Glascock, for the erection of a public building at Oakland, Cal., to cost \$100,000; also, a bill has been introduced by Mr. Morrill for the erection of a public building at Atchison, Kan., to cost \$90,000; also, a bill by Mr. Farley to provide for the erection of a public building at Sacramento, Cal.

The United States senate has passed a bill authorizing the construction of a fire-proof building for records, to cost \$250,000.

Illinois Corporations.—MARCH 11.—The Chicago & New England Granite Company; capital stock, \$10,000; incorporators, John Lemon, Fred P. White and Geo. A. Haley.

MARCH 12.—The Chicago Real-Estate Board; capital, \$250,000; incorporators, Edwin Stewart, Samuel Chandler and J. H. Krebs.

Miscellaneous Synopsis.—A contract has been closed for the erection of a hotel, to cost \$20,000, at Minnewaukon, on Devil's Lake. Parties from Buffalo, N. Y., are to build it.

EDWIN A. JACKSON & BRO.

77 BEEKMAN ST., NEW YORK.

Heat-Saving and Ventilating —GRATE.

WASHINGTON, D.C., March 29, 1883.

GENTLEMEN:—I take pleasure in saying that the three ventilating grates of your make, which I have had in use the past winter, have given perfect satisfaction.

They have fully met your recommendation and come up to my expectations. They keep the rooms in which I use them supplied with a full supply of fresh air, creating a complete ventilation. This air being heated as it passes through the air chamber, pours into the room through the perforations at the top of the grate, bringing a supply of heat which, I think, more than doubles the radiating power of the fire itself.

The one whose operation I have observed personally most closely is in my study, a room about 18 by 28 feet in dimensions, which it keeps thoroughly warm and well ventilated.

Yours truly,
STANLEY MATTHEWS.

St. Paul, Minn., Nov. 17, 1883.

MESSRS. E. A. JACKSON & BRO., New York. Dear Sirs: Your patent "Ventilating Grate," of the Oliver pattern, has fully met my expectations. To all the delights of an open fire it certainly adds the double advantage of economy of heat and perfect ventilation. Until our very cold weather I have been able to heat comfortably a large double room downstairs, and a good-sized room in second story with it, and with no greater expenditure of fuel than necessary for a common grate.

Yours very truly,

CHARLES E. LEE, M.D.

E. A. JACKSON & BRO., New York. Gents: The grate purchased of you is placed in a sitting-room 18 feet square, and opening from it on the north by double doors is the parlor, 16 feet square, and on the south by double doors opens the dining-room, 14 feet by 16 feet, with eleven windows in the three rooms, extending from the sills or floor, 8 feet high, with ceilings 10 feet high, and all three rooms, with the canal coil in the grate, are nicely warmed and most perfectly ventilated by that one grate.

Very truly yours,

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