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Architects and Builders throughout the West will confer a great favor on the Editor of this Journal by sending him news pertaining to the craft in their section of the country, particularly items of new buildings.

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"AN architect," says a morning print, who builds a "fire-proof" apartment which burns with loss of life should be made criminally responsible. But suppose the architect builds such a building as the projector and owner of the premises desires to have built at a certain cost, and puts into it such materials as the owner directs, so that it is ostensibly but not practically fire-proof, and the building burns with loss of life, who really is the party who should be made criminally responsible? We take it that the man who causes the erection of such a building, and is the owner, is the proper person to be held accountable, and not the architect, who, neglecting to adhere as closely as possible to

his plans and estimates of cost, would soon find himself involved in trouble. No; place the responsibility where it properly belongs—upon the parsimonious owner of such premises—and make him bear the odium to its full extent.

IN answer to the question, "What is a fire-proof building?" the New York *Tribune* points to its own structure, which, it says, has been acknowledged by competent judges to be a building of this kind, and has been imitated more or less successfully in most of the towering masses of masonry recently built in lower New York. It claims that the following six conditions are requisite in order that indestructibility may be secured, viz:

1. The outer walls should be of absolutely incombustible material. The experience of the ages has shown that thoroughly burned brick is the best material for resisting fire, and also the most durable.
2. The inner or partition walls from cellar to roof should be either of brick or concrete.
3. The floor beams should be of iron and should rest on brick walls. They should never be supported by iron columns. Such columns yield readily to heat, are warped and twisted, and let down the floors supported by them (unless protected by fire-proof material).
4. The iron beams should be surrounded by concrete or other fire-proof material. There should be concrete above and below and on either side of every beam. There should be a solid layer of non-combustible material separating the ceiling below from the floor above.
5. The halls should be tiled. The stairs should be either of the best slate, stone or iron, and should be supported by brick walls. The elevator shaft should be of iron or brick, and should be properly closed at top and bottom.
6. The roof should be made of unflammable material, preferably of concrete, slate or gravel, supported on iron rafters.

The above is certainly a lucid explanation of what a thoroughly constructed fire-proof building is. The St. George flats, which recently burned in New York, was supposed to be a thoroughly fire-proof structure. It was seven stories and basement in height. The front was of stone ornamented with terra cotta; at the spacious entrance hall were polished marble columns; the stairways in front were of stone and the halls were tiled, and the elevator shaft was incased in iron. Everything in front looked solid and safe. But when this "magnificent fire-proof structure" was subjected to the practical tests pointed out by the *Tribune*, it proved not to have been in the most remote sense a fire-proof building. The few precautions that were taken for the sake of appearances were confined to the front section. There the elevator and air shafts were lined with iron, and the stairs were of stone, but in the rear the dumb-waiter and air shafts were of wood, and the stairs were of the same material, and of the most flimsy construction. The wooden shafts acted like big flues open at bottom and top, and the inflammable material with which they were surrounded made an unmanageable bonfire. In the distribution of the steam-pipes the commonest precautions were neglected. The pipes seem to have been in direct contact with lath, plaster and frame partitions. The floor beams were of wood; there was no lining of brick or concrete between the floors, and the partitions were of lath and plaster. All the essential conditions which we have mentioned were either lacking or inadequately supplied.

THE destruction of the "St. George flats," and the fortunate rescue of nearly all its inmates from what seemed at first the precursor of another great holocaust, should not fail to keep alive in the board of health department of this city a deep interest in the welfare of the many hundreds of people in this city who are crowded together in tenement houses of a similar kind. And yet, from what personal observation has taught us, and from the practical experience of those who have, perhaps through the sheer force of circumstances, been compelled to pass many nights in a crowded lodging-house (ycleped, in the common parlance of the day, the "St. Bernard Hotel," or some other equally euphonious name),—we say from what such parties have told us of their

experience, that in half a score of such houses in Chicago there are nightly gathered together from one, two, three hundred of lodgers in three, four and five story lodging-houses, not one of which, in case of a fire in the premises, has provided for the helpless inmates a single avenue of escape, except the narrow and winding stairways by which the upper stories are reached. Let the health department, if it can give so much of its time to this matter, examine personally some of the half-dozen so-called hotels which are situated on State street between Van Buren and Harrison, on the west side of the street, and it will find in the Marvin house, and houses of a similar kind adjoining, a condition of things on the upper floors of these houses or "hotels," which the board of health may declare they had no knowledge of whatever. Every night scores of men are crowded in these places, in small narrow rooms, from which a speedy exit would be utterly impossible in case of an outbreak of fire. There could be no possible chance for many of them to escape a most horrible and certain death. There is not a single fire-escape of any kind provided in any of these buildings. The landlords, if they have ever been notified to provide such means of escape, have utterly ignored the command. It is said that the walls of these buildings are not strong enough to support any apparatus for escaping in case of any dire emergency. Then, let us ask, why are they permitted to be used for "hotels" or lodging purposes? In case of fire the walls would prove doubly dangerous, and would even involve the peril of a still greater loss of life. The buildings we have cited are not all there is of the kind. Similar structures exist in other places on the South and West sides; and these demand, before it may be too late, the immediate attention of the authorities whose bounden duty it is to look after just such alarmingly dangerous fire-traps as all these structures are. It is terrible even to think of what might happen in any one of them during almost any night; how much more would be the reality! Since the daily press has said nothing about these dangerous fire-traps, we take it upon ourselves to send out this note of timely warning to the authorities, and ask them to examine the localities for themselves, and to act promptly in the matter of securing to the inmates of these concerns some reasonable hope of safety by flight in case of the terrible emergency by fire. The political conventions that are to meet in this city during the ensuing summer will draw hither thousands of people, and there is a prospect that almost every public house will be more than usually crowded. Surely considerations of such vast importance to human life ought not to pass, for a single day, the exacting observation of the powers that be, and the prompt application of providing means of speedy egress from all such dangerous places.

IN all, no less than twenty bills have recently been introduced in congress, each of which propose the virtual abrogation of our patent laws. Instead of allowing seventeen years for a patent to expire, one of the bills proposes to reduce the limit to five years. The proper title for such a bill ought to read: "A bill to crush out inventive genius, and put a stop to any further new inventions of any kind whatever." The introduction of bills of the nature stated has thoroughly aroused the inventors of the Northwest, and in Chicago and other cities meetings have been held, and largely attended, to take steps to counteract legislation so pernicious in its character. Already protests against the passage of such bills have been signed by several hundred well known inventors, and the list will swell to thousands of names by the time the committee having the matter in charge are ready for a visit in person to Washington. The *Scientific American* has been especially vigorous in its defense of in-

ventors, and has opposed legislation of the character proposed. It says, in speaking of the value of property in patentrights, that

"The courts have held the propertyrights of patentees to be as sacred and inviolable as any other species of propertyrights; and public interest demands that they shall be as scrupulously respected and quite as carefully guarded, for they contribute their full share to the public well-being. Exact figures cannot be given; but anyone who will inquire into the value of property vested in, or contingent upon, patentrights on New York island alone — property whose value would be unsettled or destroyed outright by the proposed legislation — will soon arrive at a sum that would go far to purchase the entire farm property of whole states."

If any change be made in the government supervision of patents, let it be in the direction of encouraging inventors, and giving necessary aid to those worthy of development, so that the poor inventor may reap a benefit from his creation, and not the moneyed speculator, to whom in the past too often has fallen the lion's share.

UNDER the title, "A plea for a more modern and original style of architecture," a writer of some vigor complains, through a fairly circulated medium, that architects in this country have made very little progress during the past twenty-five or thirty years. "The great bane of modern architecture," he contends, "is the tendency of a good many architects to be ruled by precedent." Without affirming or denying the truth of this statement, which has been prolific of so much controversy in the past, and with no desire to have it renewed, we will say that the evil is, perhaps, equally great in all the arts of long standing, and it will be proportionately difficult to change. It is well known that long usage makes custom. As bearing somewhat upon this point, one of our best architects, in speaking of this subject, made the remark, a day or two since, that "if the celebrated treatise of Vitruvius had been destroyed before its discovery, it is barely possible that the world would have been no wiser; and also that modern architecture would have been a gainer." He further went on to state, in substance, that he believed that one requisite of a great architect was to be gifted by God with the eye and feeling of an artist. Such men as Raphael, Leonardo de Vinci, and many others whose names and works have been handed down to us, were unquestionably men of that stamp; but where can we point to their equals today? Such men, it would seem, are the products of centuries only. There is one thing, however, which cannot be too frequently or too strongly urged, and that is, a better general education for all young men who think of becoming architects, and to avoid inducing young men to follow any branch of the fine arts which they do not evince a decided taste for before they leave school.

IN this direction our training schools are likely to be highly beneficial, as they will unquestionably direct talent and develop genius in the channels of occupation to which they can best adapt themselves. The day when young men were apprenticed to an architect much in the same manner as they are now apprenticed to a mechanical trade has gone by; or, if there be any such system anywhere still followed, the young man soon acquires such a spirit of independence, and deceiving himself by the hypothesis that his superficial knowledge is sufficiently advanced to enable him to perform the work and assume the responsibilities of an architect, he takes a step to fulfill a position for which he is almost totally unqualified. Is it to be wondered at, therefore, that we have so many men in this profession who are in fact only so-called architects; whose practical knowledge of architecture in its broadest sense amounts to so little; who possess no originality either of conception or design; who have so few natural gifts for their calling, neither possessing the eye nor the feeling of an artist, and who have nothing to fall back upon but prece-

dent? The question now-a-days is, in many instances, not whether they are suited for that profession, but it is more whether the profession and the income it will bring is suited for them. The reform that must eventually follow, and change somewhat the present order of things, is to be looked to in the American Institute of Architects, which has for its one primary object the defining and encouraging of upright and efficient professional practice; and this association, which is a sort of federal union, having divisions or "chapters" in Baltimore, Washington, Chicago, Cleveland, New York, Philadelphia, etc., is, we are glad to say, exercising considerable influence in the right direction. Whether the prejudices in favor of ancient architecture, either classical or Gothic, must be given up or diminished, as the writer to whom reference is made would have us believe, it is not our province to say. Time and the best possible education that our rising architects can receive will determine that question. This much, however, may be said, that while all forms and details left us by those who have gone before are free to be used, the combinations in which they are employed must depend, for their beauty and effect, on intrinsic properties, and not on their having been used in the same combination before, or an association connected with them, whether classical or otherwise which have no connection with their present use.

THE ordinance requiring all buildings in Chicago over ninety feet in height to be absolutely fire-proof is a timely and proper measure. It has been suggested that the limit of height should have been made at a diminished figure, and recommendations have been made to the council to restrict the height to eighty feet, at which altitude and all beyond that every building shall be proof against flames. It is urged that the fire department cannot do any effective work with a fire in the upper story of a building over seventy-five feet high, and for this reason every building which ascends to the height of eighty feet should be constructed of incombustible material. The public are undoubtedly thankful for the ordinance as it stands, but it certainly would entail no peculiar hardship upon the projectors of buildings to compel them to observe in the future still greater regard for the public welfare and safety by putting up substantial buildings. So far as all buildings which may be erected for tenement purposes are concerned, the law should restrict their height to four or five stories; each story to have a high ceiling, and every such structure to be built in a manner which would make combustion especially slow in case of fire. All such buildings ought to be absolutely fire-proof; but since this condition cannot be always attained, the next best thing to do is to have them built as nearly fire-proof as the means at command will supply.

A PRIVATE meeting, at which there were present a fair representation of the professional architects of Detroit, was held in that city a few days ago, at which, it is reported, the matter of rates and discrimination were thoroughly taken under consideration. There has in the past, as is well known, been a good deal of competition, and the result has been that no uniform scale of prices for professional work has been adhered to. The object, therefore, of the meeting was to form a union of sentiment and feeling among the brotherhood and to establish an association which will put a stop to underbidding, rate cutting and architectural "scalping," so to speak, which has, to a certain extent, injured the business of first-class architects. A schedule of rates will probably be adopted for the government of the members, and its violation will result in some form of discomfiture to those who violate it, if they become members of the union. "It can readily

be seen," said one of the architects who had attended the meeting, "the proposed union will be a good thing for the established members of the profession, who will get new business on their reputation and keep what they now have, but I do not believe it is going to be a good thing for those architects not so well established. They will virtually be barred from competing with the class referred to, people naturally preferring the work of the established architect to that of the younger members when their prices are the same. Many people are induced to try a new architect when his rates are lower than his brothers', and if he does good work and gives satisfaction he will retain the custom thus acquired. I shall go into the association. If I don't like it, I shall leave it."

THE journeymen plumbers of Chicago have very wisely concluded that the proper and the best way to settle all disputes which may arise between their employers and themselves is by referring all such matters to a committee of arbitration. Accordingly they made this proposition to the Association of Master Plumbers at their last monthly meeting, and it was accepted and such committee appointed. This action, so eminently wise and proper, will, in all probability, obviate the necessity of any strike or lockout on the part of the employes, as all awards of a committee of arbitration are considered binding on both sides. The collision between one man's liberty of action and another's has given rise to many questions of great nicety; but so long as there are trades unions these are likely to occur; but no one whose judgment is not blinded by selfishness and passion will deny that if there is any difference between a free man and a slave, it is that one may labor or not, as he pleases, provided he does not burden society with his support, while the other has no such choice. The dictation of trades unions as to what disposition men must make of their own labor, sometimes, indeed often, brings men into slavish subjection, and when any body of men are wise enough to leave their disputes or disagreements to a board of arbitration for settlement, it shows a disposition among employes that will result largely to their own advantage. The true purpose of a trades union should be the elevation of the trade and the education of its members.

IT is gratifying to those whose mission it is to design and build, to find the projected permanent exhibit of building materials is slowly but surely becoming a fact, and that the names of some of the best-known firms in their several lines are now connected with its progress in the way of exhibitors. The extremely busy season we are happily experiencing has prevented many firms who long ago selected and leased their space on the floor of the exhibition hall from erecting such displays as they wish, and it has necessitated extra work upon the part of architect Gay and his corps of assistants; but before the season closes it is hoped that so perfect will be the building-material representation, that those looking for these things will no longer be obliged to ride from one end of the city to the other to see the different manufactures. Eastern firms are seeking this valuable method, as well as others, to come into legitimate competition with the West; and while to all these the exhibit is of the greatest importance, the public are the greater gainers, for by seeing the different materials side by side, the merits of each can be faithfully compared. As this exhibit is open free to the public, it is destined to become an educator also, and will give to architect and client alike many new ideas in the construction and arranging of our buildings. As Chicago is the center of Western enterprise, the West looks to her for the best, and knowing this, the material manufacturers are bound to make the permanent exhibit a permanent success.

Architecture.

LECTURES DELIVERED AT THE UNIVERSITY OF CHICAGO

BY W. L. B. JENNEY, ARCHITECT.

PART X.—THE CLASSIC PERIOD—CONCLUDED.

A SINGLE lecture is scarcely sufficient to illustrate and explain the most glorious period of architecture that has ever existed, and from which we can learn many a valuable lesson.

Not only did the Greeks treat with consummate art everything they undertook, but we also find that every feature and every detail of their architecture, from the plan of their temple to the most minute detail of its ornamentation, was admirably suited to the purpose intended, indicating not only great thought and study on the part of their architects and builders, but also, as we know to have been the case, a correct appreciation of art on the part of the people. The Greeks were a nation of artists. Fitness of things was their first principle.

We do not find one architect copying an Egyptian temple for a tomb, nor another copying the front of an Assyrian palace for a private dwelling, or a piece of furniture, as is too often done today. For had he been so disposed he would not have found a client willing to pay for such folly. But each was intent upon improving the style that the requirements, and the building material, under the influence of the Greek genius, was creating. There was no foolish searching after novelty without regard to fitness, nor passing fashions lasting but two or three years, as at present.

What will the archæologist a thousand years hence have to say of our epoch, should anything we build last so long? He must conclude that we had no art of our own, and therefore copied, without thought or study, the first thing that struck our fancy. Ten years ago it was Mediæval, then Queen Anne, now Colonial, and what next, who knows? And with these fashions we find a sprinkling of every style under the sun, since civilization began.

It may be asked, since the most glorious period of Grecian architecture was the finest ever known, what have we to do but to copy the Grecian work? The answer is easy. There was nothing in Greece twenty-two or twenty-three centuries ago that accords with the requirements in America in the nineteenth century, except those great general principles that are independent of time, country or people. These truths are now, as they were then, the foundation of all true styles. The requirements must be met in the most direct manner.

The construction must be substantial, enduring, and well adapted to the material at hand, and at the same time be elegant and refined in its proportions, and that its ornamentation shall grow naturally out of the construction.

We want a style for America suited to American wants, and we can have it only by working as the Greeks did. Not by copying first this and then that, but by studying each feature and each detail, accepting what best suits our purpose and arranging all with fitness and good taste.

Rome, as she rose to power, absorbed Greece, and endeavored to apply her arts to Roman use.

In Greece, architecture had been used, as far as our knowledge extends, only for temples and monuments; in Rome it was required for every variety of purpose,—baths, amphitheatres, triumphal arches, theatres, bridges, aqueducts, tombs, basilicas, villas, etc.

In Roman work the plan is essentially their own. For the exterior, as several stories of openings were often required, they made use of the arch springing from piers, and this construction the Greek workmen were called upon to decorate, and as the Greeks knew of but one style, the orders, these they plastered onto the Roman construction and produced what is so often seen, stories of arches, with entablatures between, supported by columns mounted on pedestals, in front of the piers. This composite arcade, as it is called, is a Grecian screen in front of a construction of Etruscan design, and is the true Roman order. Although not without considerable richness, the two constructions are too distinct to be good architecture.

The Grecian work evidently serves no other purpose than a constructed ornament, unless it may be buttresses for the wall, which could easily be accomplished in a more direct and economical manner.

After the Roman empire moved the capital to Constantinople, the Greek architects and artisans worked under Asiatic influences, and a new style, the Byzantine, was produced, which, later, on the banks of the Nile, the Nestorian Greeks, in the employ of the Saracens, modified and developed into the style that, during the dark ages, moved along the northern shore of Africa into Spain, where we find it in its perfection in the Alhambra.

It is from this style on the one hand and the Romanesque on the other that the French genius extracted the germs for their Gothic which in the Mediæval period, spread over western Europe in the great cathedrals that are today the wonder and admiration of every architect and of every intellectual traveler.

Saunterings in Spain.

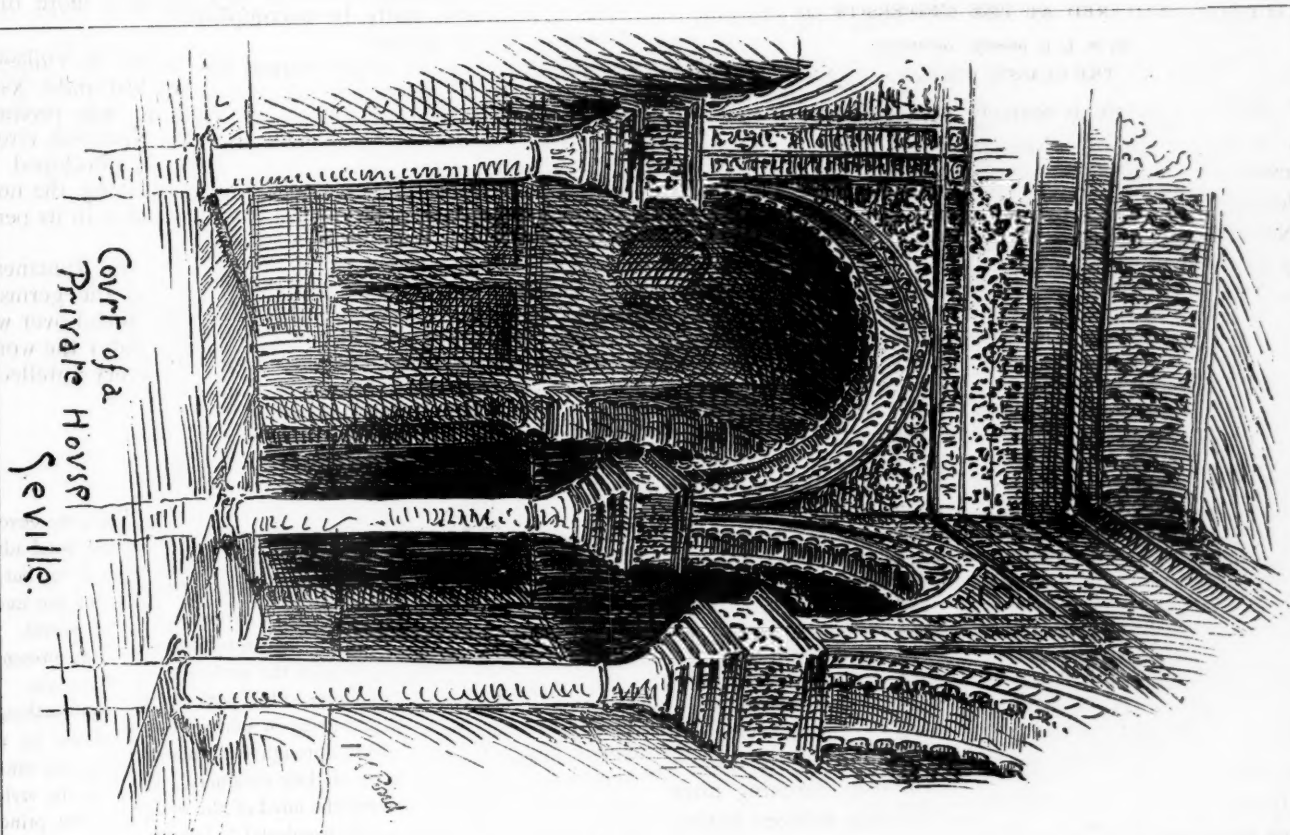
BY I. K. POND.

THE art shrines of Spain do not attract in great numbers the devotees of our country. The reason is obvious. Railroad and hotel advantages are not just what the American has been used to, but the marvelous richness of art and architecture furnishes a treat for the student which more than compensates for the inconveniences of travel. An atmosphere of the Orient pervades the architecture, of the present as of the past, from the southern shores to the peaks of the Pyrenees. The Gothic buildings, if they do not gain in purity of style, lose nothing in richness and in beauty of detail through the influence exerted by their Arabian neighbors on the tastes of their designers. But when the fanciful imagination of the Moor swayed the mind of the designer in the style of the Renaissance, the results were wonderful to behold, and that principle of decoration which is the charm of the Arabian style was so corrupted that the structure is a mass of irrational detail which wearies the beholder and turns the rococo sisters of other countries pale with envy. Not that there are no fine examples of Renaissance in Spain, but that where these examples occur they exhibit a Northern rather than a Southern feeling. In many instances, and notably in the cathedral at Seville, is there a blending of the Renaissance and pointed styles which is superb. The church in question, which covers nearly, if not quite, as much ground as does St. Peter's at Rome, was built on the site of one of the grandest Moorish mosques of Spain, the minaret of which still stands capped by a belfry in the Spanish style, and as fragments of the mosque were used in the construction, here and there about the church crop out beautiful hints of old Moorish times which lend an inexpressible enchantment to the spot.

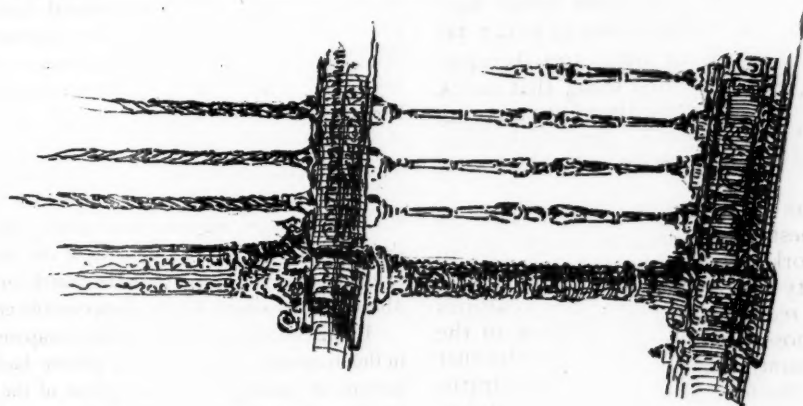
In the Spanish towns in general, comparatively little taste is displayed in the designs of street fronts of private buildings, though in the newer portions of principal towns this phase of the work is receiving attention; but throughout the country the façades on the courts, which are entered through spacious vestibules from the streets, are exquisite in design, always Moorish in feeling, and often carried out in a perfection of detail equal to that of the Alhambra itself. The vestibule is guarded by beautifully-wrought iron gates, which arrest the eye as well as the entrance of the visitor, and, if he be an architect, lead him to wonder if Spanish artisans might not be transported and made to flourish on American soil; for in no other country does one see such examples of the ironworkers' art. The choir and chapel screens are generally of iron and the space filled is often thirty or forty feet in height by rods in length. In this day, when the architecture of our country is calling loudly for artistic designers and workers in iron, studies from the "old Spanish masters" might not be made in vain. The amount and beauty of the wood carving is another continued source of surprise. The barrenness of the Spanish hillsides may be in a measure accounted for by the quantity of superbly worked wood in all classes of buildings, from churches to stables. The intricately lined ceilings of some of the private houses, which date from Moorish times, as well as the massive altars, choir stalls and organ frames of the churches, are marvels of cleanly cut and beautifully designed wood carving.

One would think, too, that we advanced Americans might take a lesson in construction from our Spanish brothers, who are in many respects where Christopher Columbus left them when he came over to us.

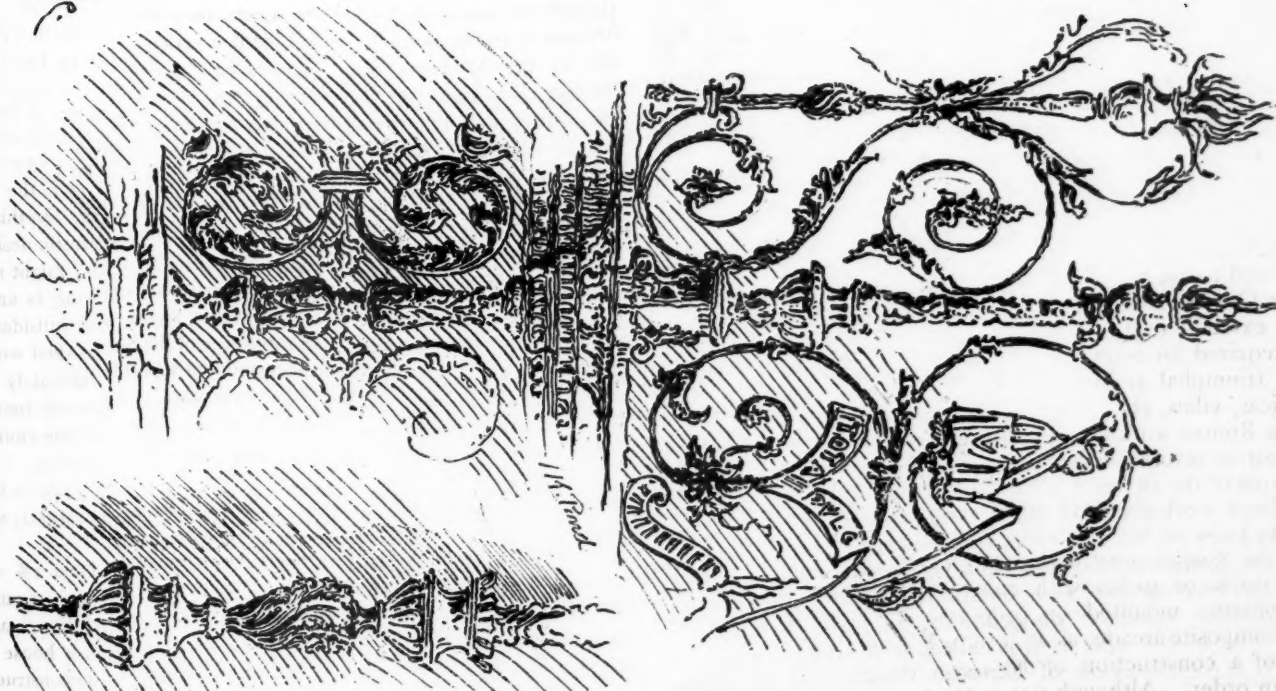
A houseowner who, in spite of fairly high rents, cannot clear 2% on his investment points with pride to his building and says: "There is my money in that house, and it will stand an earthquake or an insurrection," and it is not impossible that it may be tried by both. If a Spanish house were as satisfactory in its arrangements as it is in the stability of its construction, it might serve as a model; but as it is, there is little about it which an American architect would not study to avoid.



Court of a
Private House
Seville.



from the
Choir screen
of the Cathedral at Seville.



The Stained-Glass Competition.

BY FRANCIS LE BARON.

THE competition for the stained glass in the Chicago Board of Trade building is closed, the designs are all handed in, and the contract for the twenty-nine window-transoms, in which there are twenty-four hundred square feet of glass, has been given to John La Farge, of New York, at a uniform price of five dollars per square foot, which was the limit of price fixed by the board of management. Of these twenty-nine transoms, thirteen are in the main hall, four are in the pavilion, or corner tower, and twelve are in the smaller hall of the call board. The skylight, which is sixty-one feet square, and consequently contains three thousand seven hundred and twenty-one square feet, the price of which was fixed at one dollar and seventy-five cents per square foot, has not as yet been given out. There are several fine designs for it, and we cannot but hope that the work will be given to some Chicago firm, and executed at home. There were twenty competitors, five from Chicago, G. A. Misch, Healey & Millet, McCully & Miles, Kinsella & Haywood, and W. H. Wells & Bro. Co.; from Boston, one, Kelley & Co.; from Philadelphia, one, "The Key-Stone Stained-Glass Works"; from Orange county, New Jersey, one, Payne and Peine; from Newark, New Jersey, one, Charles N. Schmitt; from Brooklyn, New York, one, Max Mittermaier. From the city of New York, ten, Tilden & Arnold, Edward A. Boyd & Sons, P. F. McMahon, Belcher & Co., The John La Farge Co., Thomas Jones, H. Edgar Hartwell & Co., T. & John Morgan, F. A. Kirtland, and The Decorative Glass Mfg. Co.

McCully & Miles furnished some very beautiful designs. Their designs for the window-transoms were circular medallions treated pictorially, with figures, etc., set in very rich mosaic work, with strong, well-designed borders. Their drawings did not do justice to their designs unless one were accustomed to translate water-colors into the brilliancy of glass; to an uneducated eye, the colored design, with its geometrical pattern, gave the impression of monotony and sameness, but to an accustomed eye they offered very brilliant effects in the use of Venetian glass, and most delicate and artistic combinations of color. One medallion showed a sheaf of wheat, a wheat-field, and distant hills against the sky: this was set in a ground of delicate purples, greens and gold, most harmoniously mingled and shaded; a rich border surrounded the whole in olives and reds with brilliant jewels to light it up. The next design was a locomotive, with background of regular pattern in varied tones of color, with a border of jewels.

Next came a medallion called "Mowing." No laboriously swung scythe was here; it was nineteenth century mowing, the improved article of the present day, with the mower riding at ease on his machine, the background being a combination of rich tints with very brilliant jewels. One panel showed growing maize, in its green and golden splendor, against a deep blue sky, the setting being executed in honeycomb pattern with rich border. Another panel showed reaping after the old style:

"The reaper with sickle keen
Who reaps the bearded grain at a breath,
And the flowers that grow between."

The other medallions were "Ploughing," "A ship under full sail," "Hop-picking," and "Commerce,"—all these were set in backgrounds showing fine mosaic effects, very gorgeous and splendid, and yet refined. The smaller panels were "Astronomy," "Weaving," and "Iron-working," the student observing the stars through his telescope, the workman at his loom, and the boilermakers hard at work on their rivets. Their design for the skylight was a magnificent piece of color, foliage, fruit and flower work, in mosaic of Venetian glass; it needed to be translated into the living splendor of the glass to be appreciated.

Kinsella & Haywood showed some good designs executed in glass, not having reference to the building, but merely a specimen of their work, and with these they sent in three small sketches,—one of flowers and fruit, good in color, one a pictorial medallion of shipping, railroad, etc., with frame of fruit and flowers, the design somewhat crowded, but showing a masterly appreciation of the use of glass. Their skylight design was very pleasing, wheat-ears gracefully arranged in a very rich border. And here I wish to say one thing. Stained-glass has its uses and its abuses. Its use is plainly seen in these great halls of the Board of Trade. It has also its limitations, which those who work in it sometimes forget, greatly to the injury of their designs. To do good and artistic work in glass one must be so thoroughly imbued with its limitations that he will feel and obey them without remembering them. The designs submitted by W. H. Wells & Bro. Co. were a set of really beautiful water-color drawings,—"Ploughing," "Sowing," "Reaping," "Threshing," "Husking," "Harvest-Home" (transporting the grain from the field with oxen), a wheat field in the afterglow of sunset, with a new moon shining in the sky, and two youthful figures for the romance of the picture, "The Old, Old Story," "A Hay-making Scene," "A Herd of Cattle" and "A Herd of Swine."

Healey & Millet send a fine set of designs to represent their work—"Stone"—sculptor in blouse and cap hewing from the marble a bust of heroic size; "Textile," a pretty young girl spinning on a small spinning-wheel; "Iron," a blacksmith in leather apron, red shirt and cap, resting from his labors at the forge; "Wood," a workman in blue blouse and cap, in his workshop surrounded by his tools, and holding in his hands a piece of work, which he appears to be examining; "Commerce," a goddess in red, with caduceus supported by two eagles, shipping on one side of her, railroad with locomotive ("that resonant steam-eagle") and train on the other; "The Harvest," a woman carrying a sheaf of wheat in a wheat-field,—Ruth, perhaps, in the field of Boaz; "The Sower," a man scattering seed, reminding one of Millet's great picture of "The Sower." The other panels are dashes of brilliant color.

G. A. Misch has taken things out of the antique and brought them into the present century; no scythes, or sickles, or flails for him; he gives us modern farming machines—reapers, mowers, binders, corn-shellers, fanning-mills and plows, on a background of wheat-fields. One design, which

evidently carries allegory with it, shows a bull and a bear in a wheat-field; the bear is making off with a sheaf of wheat, and evidently holds the market, while the bull is pawing the ground and roaring in despair and wrath. All the agricultural machines are newly-painted in colors of the brightest.

So much for our home work. In comparing it with the foreign work we feel great pride and pleasure in the success of our home artists.

Kelley & Co., of Boston, show groups of strongly drawn figures, male and female, gathering the fruits of the earth; the practical implements of husbandry—the shovel, the sythe, the hoe, etc.—surround them. These groups are set in very rich borders of fruit and flowers. There are also magnificent figures in very graceful arabesques of foliage. These designs are especially soft in color and tone. From the Philadelphia firm we have a design in glass of a man sowing in Mediæval dress,—yellow hood, green cape, red robe, blue nether-garments and brown shoes; on either side of him ripening maize; the whole in a border of fruit. P. F. McMahon's designs are remarkable for their vivid action; agriculture is shown by plowing and sowing; the Marchiest of March winds seems to be blowing and the poor men are evidently having a hard time. It is New England farming, where nature does little and man has to do more than his share. "The metal-workers" seem by their action to be forging a thunderbolt for Jupiter. There is immense action in all these designs. Edward A. Boyd & Sons, New York, furnish all the plate glass for the building, and their designs for the stained glass show masterly drawing. The figures remind one of church work. These are "Science," a graceful female figure advancing with dividers and book, "Music," "Painting," "Agriculture," "Commerce," "Engineering,"—these female figures are superbly drawn in a grand, broad style. The "Engineering" reminds one of Ary Sheffer's "Christus Remunerator."

Belcher & Co.: "Flora, Ceres, Pomona," in one cartoon, and other well drawn figures of "Justice," "Prosperity," "Liberty," "Agriculture," and "Commerce,"—all well adapted for glass-work.

Thomas Jones sends a very excellent skylight design,—flowers and foliage in soft, light, brilliant colors.

Kirtland's designs are as full of rest as McMahon's are of action. "Agriculture" is represented by a woman reposing under a tree with a flock of sheep around her. It is Little Bo Peep to the life, and one can't help thinking, as he looks at the reposing woman,

"She's left them alone and they'll come home,
Bringing their tails behind them."

"Engineering" is a tired woman with measuring-tape dropping from her fingers,—a train rushing by in the distance. "Mechanics," a blacksmith kneeling at his forge, heating his iron held in a pair of pincers; his time for action has not come. T. & John Morgan show a most excellent skylight design. Hartwell's designs were "Electricity," "Commerce," and "Agriculture." Payne & Peine send a number of designs in color on black cardboard, "Ploughing," "Reaping," etc.,—the plow, the oxen, the scythe and the wheat-field, interspersed with a little music,—David playing on his harp to a large bouquet of art-flowers in a pot. "Commerce" has the usual water and ship, with men running about with bales of goods that they have evidently never picked up and never intend to put down.

Charles A. Schmitt sends five designs; one of them is a train of cars, with the sign "Look out for the engine" turned toward a pile of rocks, while the locomotive evidently intends to run down an emigrant wagon on the other side.

Max Mittermaier sends arabesques of foliage with farming tools.

Tilden & Arnold show a very beautiful skylight, delicate foliage in exquisite colors; the whole design graceful, light and elegant. Their window transoms are treated allegorically.

The La Farge designs, which have been accepted, are as follows: "The Genius of the City,"—a magnificent female figure, with the civic castellated crown. "Fortune,"—this is executed in glass, and is magnificent. Fortune sits upon her wheel, and one seems to hear Tennyson's Enid singing:

Turn, Fortune, turn thy wheel and lower the proud;
Turn thy wild wheel thro' sunshine, storm and cloud;
Thy wheel and thee we neither love nor hate.

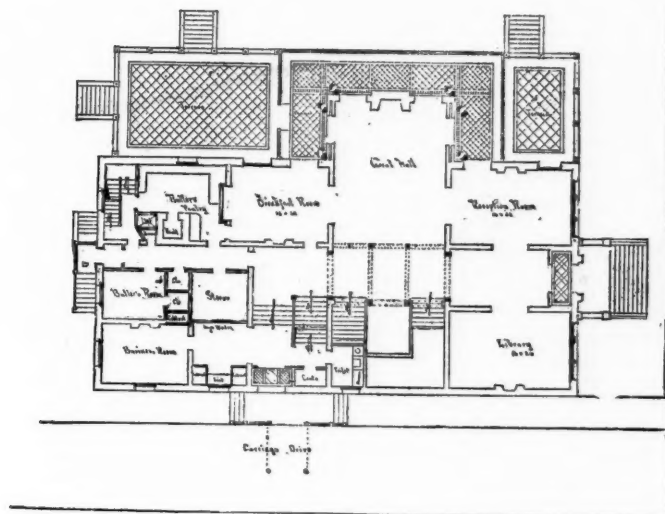
Turn, Fortune, turn thy wheel with smile or frown;
With that wild wheel we go not up or down;
Our hoard is little, but our hearts are great.

Smile and we smile the lords of many lands;
Frown and we smile the lords of our own hands;
For man is man, and master of his fate.

Turn, turn thy wheel above the staring crowd;
Thy wheel and thou are shadows in the cloud;
Thy wheel and thee we neither love nor hate.

"Commerce." "Farming and Agriculture,"—figure of a man in dress of a husbandman; at his feet a lamb, in his hands ears of wheat. "Reaping." "Abundance,"—in her hand a horn of plenty. "Astronomy." "The Genius of Engineering,"—in the foreground the entrance to a tunnel, in the distance an aqueduct. "The Telegraph,"—personified by a flying Mercury. "Sea, River and Lake" as highways for commerce, and contributing to trade by fisheries and maritime industries. The sea represented by a Nymph on a sea-horse,—in her hand a miniature paddle-wheel; a river, as means of transportation; the walls of a city on the river-bank; lake with fish, water-fowl, etc. "Trade in Live-Stock" and the supplying of the markets; in this instance the figures of a Greek bas-relief were followed in the drawing. "Manufacture in Metal,"—Vulcan at his forge. Call-Board Hall: "Agriculture," "Mechanics," "Strength," "Courage," "Enterprise," "The Merchant," "The Sailor," "The Poet," "Art," "The Law," "Commerce," "Education." These twelve are represented by individual heads.

As an entirety, these designs represent the capability of the United States for the production of stained glass; and though each artist represents novel and artistic features, the designs having all been confined in scope to a limited cost, they can in no case be held as a sample of the best work of the firms they represent.



DESIGN FOR A CITY RESIDENCE, by W. L. B. Jenney, Architect, Chicago.

French Architecture in America.

A DESIRE for novelty is a characteristic of the present age. Fashion is not confined to articles of dress, but extends to the serious matters of life and has reached architecture. After the selection of a Gothic design for the English House of Parliament, the Gothic style became the fashion in England, and soon the architects in America as well as England were working to adopt the early English or thirteenth century Gothic to modern wants, and they were meeting with much success; the style had belonged to the English-speaking people in the best period of their arts, was well suited to the climate, and was easily adapted to the wants of the same people six hundred years later, both at home and in the northern states of America.

American architects had sought the advantages of the professional schools, at home or abroad. The numerous professional publications spread before them illustrations of the best work of the period. A marked improvement took place in American designs, and for the first time it looked as if the United States was to have a national style, original in its developments if not in its conception. Unfortunately just at this moment the desire for a change introduced a new fashion, and then we had Queen Anne and Colonial. Any style in able hands will, after a time, become artistic, and soon some beautiful cottages were built in these styles, for which they seemed eminently adapted, though they lacked the quiet dignity necessary for the lofty business blocks in our great cities, and it is probably for this reason that the architects are now looking to France for a style adapted to these important city buildings.

The love of the picturesque and the desire for novelty, stimulated by a growing artistic taste and a general desire among the better educated for something pleasing and original, has greatly improved our architects, forcing them to study, and better still, to think, so that whatever style comes to the front, it will now fall into the hands of able and educated men who will ere long make it their own.

We have reason to congratulate ourselves that fashion has taken so sensible a direction as toward the French school, the result of four centuries of the study and practice of the ablest architects, assisted by such schools as that of the "Beaux-Arts," and illustrated by numerous and voluminous publications covering the entire period. There are many types of French art: the Classic, the Romanesque, the Renaissance, the Round Arch Gothic of central France, and even the pointed style. These, with many modifications worked out under the influence of French genius, is what is termed the French school. There is certainly variety enough to suit even the most advanced idea of the present day, that each building erected should possess its own special characteristics, and as little as possible resemble any other building ever erected.

The French school, in its broadest sense, embraces all styles; sometimes produced with as much purity as the requirements will allow, at others treated with great freedom and with marked French characteristics.

The type that seems likely to reappear on this side of the Atlantic as a starting point for a new fashion, particularly for important city buildings, is that adaptation of the Classic Renaissance so characteristic of the French school since the beginning of the last empire. There are two types,—one with the orders, and much enriched with sculpture; the other astyric, with less enrichment and often very simple.

It is not to be supposed that our architects are to blindly copy French designs. The climate of Chicago and the West is not that of Paris, nor are the requirements identical. We must not forget that much of the ornamentation so profusely used in Paris was designed for a soft, light-colored stone, that would soon be disfigured by our sooty atmosphere, even if our more expensive labor did not *make* it too costly. Fortunately our architects are now in the habit of thinking for themselves, and will soon adapt the French style to our climate and materials; and if they can only have time before the fashion changes again they will make the style as much their own as they did the English Gothic, or the so-called Queen Anne, which, for a time at least, must be preserved for cottage architecture, to which it is well adapted, and where it has produced a thousand picturesque pleasing effects that Queen Anne never dreamt of.

Architectural and Building Notes.

IN the ventilation of the immense trade-room of the new Chicago Chamber of Commerce the air will be completely changed each five minutes.

THE new Panorama building is being rapidly pushed and most of the contracts have been let. Indiana pressed brick will be used, furnished by Hinchliff & Owen.

P. B. WIGHT, of the Wight Fireproofing Co., has taken the agency for the handling of Wilcock & Co., of Leeds, England, enameled brick. They are largely used for wainscoting and tiling.

THE Cincinnati bricklayers have made arrangements for the season with the master masons, having agreed to a schedule of \$4.50 a day for ten hours a day, except Saturday, which will be one hour less.

ARCHITECT BUFFINGTON is constructing a fine building for the Minneapolis *Tribune*, which will be thoroughly fireproofed by the Wight Fireproofing Co., of Chicago.

ALL mahogany darkens in color on exposure to the atmosphere, but it is a favorite trick to stain the lighter varieties with an alkaline wash in order to give them a darker tone.

A PROMINENT resident of the west side is about to build a residence with walls of bluestone from Cheat River, W. Va. It is the first time this fine stone has found a market here.

OOLITIC limestone from the Avoca quarries, near Bedford, Indiana, is largely used in the West for foundation and cut-stone purposes, and is one of the best of limestones. It is quarried and cut by Messrs. Thomlinson & Reed, of Chicago.

IT has been suggested by architects that a test of the bearing strength of the different pressed brick in the Chicago market be made the reason why a knowledge of this would be valuable, being the desirability of using pressed brick in piers and other places where extraordinary weights have to be carried.

A MEETING of the New York State Board of Health was recently held in New York city to consider the resolution of the Legislature asking whether water-gas was injurious to health. The question was referred to the public analysts, and upon their report the board based a reply to the resolution, to the effect that water-gas, as ordinarily used, was not more dangerous to health than other illuminating gases.

ARCHITECTS ADDLER & SULLIVAN are constructing a residence for Martin Barbé on Prairie avenue and Twenty-third street. It is 39 by 60 feet, two stories and basement, brick and terra-cotta, with red slate roof. It is modern in treatment, and the cost will be \$20,000. These architects are busy on numerous plans, details of which will be given as soon as arrangements for their construction are completed.

BUILDING in southern cities is reported to be very brisk. In Atlanta, Ga., there are about \$2,000,000 worth of new buildings in the hands of contractors and architects, besides the new capitol, which will be started during the spring. Heavy sums are being invested in private residences. In Macon, contracts for over \$500,000 worth of new buildings have about been closed out, giving a new appearance to the city.

THAT the Royal Insurance Company's building is to be thoroughly fireproofed is evidenced by the amount of this material being placed by the Pioneer Fire-Proof Construction Company. It includes hollow-tile floor arches and partitions, fireproofing of roof, ceilings, columns, girders, and concreting. This company are also placing the remainder of the fireproofing of the Board of Trade building, consisting of six-inch and twelve-inch tile arches and hollow tile partitions. There will also be a three-inch hollow-tile wall under the skylight over main hall, supporting the trusses forty-two feet high. No other method would be fire-proof and hold the weight, and is a remarkable example of the possibilities of hollow tile.

THE Master Plumbers' Association, at a meeting held in this city in the early part of the month, reported a plan for purchasing a site and erecting a building for the use of the association. The plan contemplates the purchase of a site at a cost of about \$15,000,—the money to be raised the first year; the second year to erect a building to cost another \$15,000; the whole amount to be raised by shares issued by the association at \$10 each. The rental of the building is expected to bring in about \$3,000 annually, besides expenses. Such a building would give the association assembly-rooms, library, laboratory and show-rooms. At the meeting, thirteen delegates were appointed to attend the National Association meeting to be held in Baltimore in June.

NEW YORK is to have an office-building that will equal if not exceed in importance the Pullman offices in Chicago. A New York exchange says: "Perhaps the finest office-building in the world is now being erected at Nassau and Liberty streets, New York city. It is a mass about 180 feet square and thirteen stories high. It contains nearly 200 offices of from one to half-a-dozen rooms, and the tenants will be favored mortals. The elevators take but one minute to rise to the thirteenth story, and their movement cannot be felt when your eyes are closed. From the six or seven upper floors the whole of New York and both rivers are in view. Every office is heated by steam, lighted by incandescent electric lights, and furnished with hot and cold water. The top floor is fitted up as a complete hotel, containing a large restaurant, where many of the 1,000 inhabitants of the building will take their meals, a reading and writing room, a complete library with librarian, telegraph office, telephone exchange, and a large number of bedrooms for men detained down-town all night—the first building in the city in which this convenience has been offered. A busy man could live for months in it without going outside. He would have his choice of banks, of insurance companies, of business, of restaurants, and of bedrooms, right there under that one roof."

Our Illustrations.

Supplement. The Counselman Office Building, Chicago; Burnham & Root, architects. (For description see page 39.)

Page 35, wrought-iron details of choir-screen in Cathedral at Seville, Spain, and porch of house at Seville, sketched by I. K. Pond. (See article, page 34.)

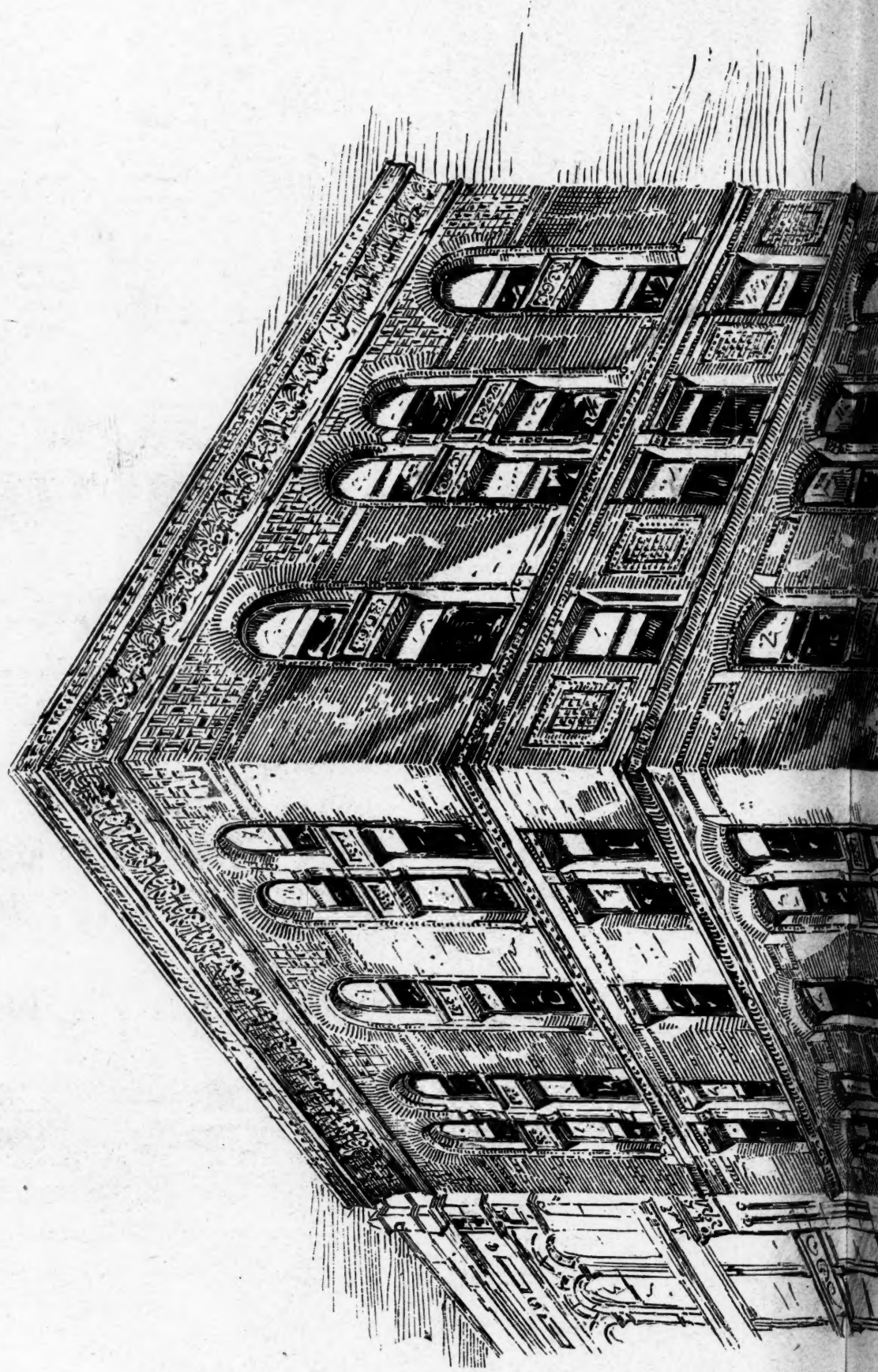
Page 37, elevation and plans designed for a city residence in the style of the French Renaissance, by architect W. L. B. Jenney. (See article on page 38.)

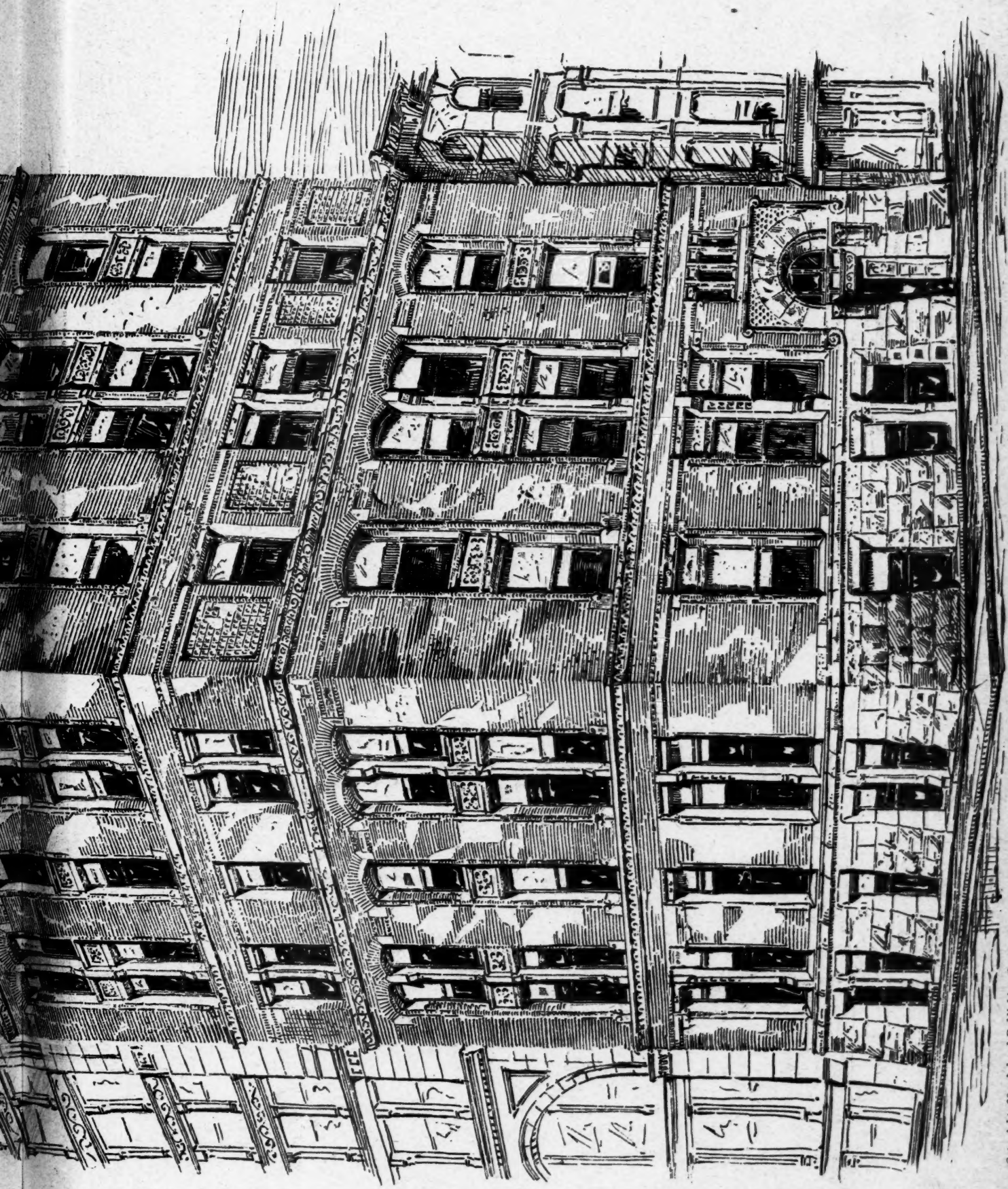
Page 41, elevations and plans for two-story frame cottage, by architect Julius Huber, Chicago. This house, for which contracts have been let, will cost \$2,300, including mantels, grates and furnace. The interior and other details will be given next month.

APRIL, 1884]

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COUNSELMAN OFFICE BUILDING, CHICAGO.—Burnham & Root, Architects.

The Counselman Building.

THAT Chicago, through her architects, is acquiring a complement of office structures that are not surpassed in any other city, is evidenced by those lately built, illustrations and descriptions of which appear in these pages. The latest building of prominence to near completion is the ten-story structure, by architects Burnham & Root, for Chas. Counselman. The lot is 46 by 60, and for this comparatively small area of ground the architects have planned a building that can be called a model in every sense of the term. The exterior is of rock-faced Jonesboro rose granite to the second story, with Anderson pressed brick and terra-cotta ornamentation above. The extreme simplicity of the exterior design is in accordance with the disposition of our best architects to dispense with all superfluous projections, whether for ornament or otherwise, and seek effect in strength and massiveness and utility in giving all possible advantage to the lighting of the interior. This, in the Counselman building, is carried out in a high degree. But aside from its excellent interior arrangements, it is in the absolute fireproof character of this structure that its chief value lies, and not alone in this particular structure, but in all those recently projected, this feature has largely entered, and though in many cases, in not so thorough a degree as in the Counselman. The entire ironwork in columns, beams, girders, vault linings, etc., is covered with porous tile, the floor arches are of eight-inch hollow tile, the partitions of three and a half inch hollow tile, the roof and suspended ceilings under the same are of this material, while the bases, etc., are of Portland and Keene's cement, and the roof is covered with glazed flat tile laid in cement. The stairways are of iron, and in its entirety this building is as non-combustible as a building can be made. Situated as it will be, surrounded by the Board of Trade building, the Royal Insurance building, and other structures equally high, if not higher, the design of the building is singularly well adapted to the location, and confers great credit upon the architects.

Lumber Notes.

MANUFACTURERS on the Saginaw river are asking \$3.65 per thousand to contract No. 1 shingles.

It seems to be the universal opinion that the new crop of logs will average much better in size and quality than the cut of several preceding years.

THE largest sale of shingles ever made on the Saginaw river was that recently closed by J. S. Hall, to Smith, Fassett & Co., of Tonawanda, N. Y., whereby the latter firm purchased of him 35,000,000.

ESTIMATES place the number of surplus logs in the Beef Slough Company's booms available for rafting at 40,000,000 feet, and, unless low water interferes, the company will raft upward of 450,000,000 feet.

THERE will be ninety steamers and sixteen hundred men employed in the transportation of logs and lumber down the Mississippi next season, from the mouths of the St. Croix, Black, Wisconsin and Chippewa rivers.

THE extent of the operations of the Ontonagon Diamond Match Company may be partially understood when it is realized that that concern harvested about 30,000,000 feet of logs at their camps during the winter just closed.

REPORTS from the grand Traverse (Mich.) district are to the effect that the hardwood logging season has been unusually successful there, most of the mills securing a crop equal to their full capacity, and hence the output of hardwood lumber in that region it is expected will be unusually large.

THE pine of the Northwest is going rapidly also, and its place in time will have to be supplied with the cheaper classes of hardwoods and the cypress and yellow pine of the states farther south. In view of these facts, Cincinnati and Louisville are already regarding themselves as the future great lumber distributing points.

THE Hudson Lumber Co., of the St. Croix Valley, Wis., completed their mill late last season and manufactured 6,000,000 feet. This year they intend to saw 15,000,000 to 20,000,000 feet. They ship by raft or rail. They have just completed a fine new planing-mill, and can furnish all grades of lumber, lath and shingles. They have a good dry stock on hand.

THE large majority of the 6,000,000,000 feet of pine lumber produced in the states of Michigan, Wisconsin and Minnesota is controlled by not exceeding one hundred and fifty men or firms, and it is a very simple proposition that a little co-operation between these one hundred and fifty firms would put the log production and lumber market under some sort of control, but it doesn't seem to work that way.

MR. C. R. VAN OSDEL, of Chicago, has completed his contract for building six dry kilns, under the Wood patent, for the Bohn Manufacturing Co., of Winona. Their old Curran & Wolf kiln, of three years' standing, has been destroyed and its piping placed, as far as it went, in the new kilns. Mr. Van Osdel is also completing two new dry kilns for the Detroit Stave and Heading Works, of Detroit Junction, Mich.

ROSEWOOD and mahogany for furniture are gradually coming again into large use. Five cargoes of mahogany arrived at New York week before last and all were quickly marketed. An exchange says that the time is not distant when New York will be the largest mahogany receiving port in the world. This is a commentary upon the changes that have taken place within a comparatively short time. It is but a few years ago since half a dozen cargoes arriving in a month would have overstocked the market. Now as many as that in a week makes no impression on the market, and all that comes forward is quickly absorbed.

NEW YORK Sun: "When a forest fire occurs in the pineries of Michigan," said a lumber operator from that state, "the pine trees on the burned tracts must be cut within a year if the owner wants to get marketable lumber out of them. The heat of a spent forest fire is not yet out of the air before millions upon millions of large, brownish-white moths appear. One hour there may not be a moth anywhere about; the next

hour the air will be filled with them. They lay the egg that produces a worm that bores into pine trees, honeycombing them with tunnels that ruin them in a few weeks. I have seen these millers covering an area of 10,000 acres of burned woods. When the rebellion broke out forest land could be bought in Michigan for less than \$2 an acre. I purchased five thousand acres in 1860 for \$9,000. Last month I sold the tract for \$250,000. I think the biggest pine tree in Michigan is on that property. It is eleven feet through at the butt, and must be one hundred and fifty feet high. A New York man once offered me \$100 for fifteen feet of the trunk from the ground up. He wanted to exhibit it during the Centennial Exhibition in Philadelphia. I refused the offer. Michigan now produces one-quarter of the pine used in the country. Over \$160,000,000 a year is received by the operators for the product of her forests. In ten years from now, however, there will be very little, if any, pine left in the state."

Mosaics.

THE patent reflectors for gas, kerosene, electric or day light, of which Mr. I. P. Frink, 551 Pearl street, New York, is the patentee, are standard goods and are in general use.

MR. GEORGE W. MURPHY, the representative of the Smith & Egge Manufacturing Company, of Bridgeport, Conn., is preparing to exhibit here a special line of plumbing goods made by the E. Stebbins Manufacturing Company, of Springfield, Mass.

THE brickmakers of this country last year consumed three million cords of wood, the product of fifty thousand acres of average timber-land. A large part of this immense expense could have been saved, with a proportionate increase in the profits, by the use of improved methods in firing.

THE March number of THE INLAND ARCHITECT AND BUILDER, a monthly journal devoted to architecture, building and decoration, contains a large amount of reading matter, and is a model of typographical art. The illustrations are especially fine, and the periodical may be said to be a credit to the publishers.—*Chicago Tribune*.

THE journeymen plumbers of this city have submitted to the Master Plumbers' Association a proposition, which was accepted, that all disputes arising between employers and employes be settled by a committee of arbitration. This is a move in the right direction, and the journeymen are entitled to credit for adopting this course to settle any disputes that may arise between them and their employers.

THOS. KELLEY & BRO., of Chicago, have received the contract for the plumbing work for the Georgia State Capital building at Atlanta. This firm will move from their present location on Dearborn street to 75 Jackson street, where they are fitting up office and showrooms where they will exhibit their plumbing supplies. They are the only plumbing firm in the country who exhibit their own inventions exclusively.

THE illustrated catalogue of the wood-working machinery manufactured by J. S. Graham & Co., Rochester, New York, exhibits in a very attractive manner all the varied wood-working machinery manufactured by this well known firm. The catalogue shows upward of forty machines manufactured by them; machines for almost every conceivable purpose in the cutting of wood into every possible shape by which it can be used to advantage.

MARTIN'S patent automatic passenger elevator is designed especially to meet a long recognized want in private houses, and since in these days no plans for residences seem to be complete without provision for putting in an automatic passenger elevator, those manufactured by the Chicago Parlor Elevator Co., at 51 and 53 W. Lake street, seem to be just the thing. Their passenger and dumb waiters seem to meet pretty fully every possible demand for hoisting purposes.

IN a recent number of the *Deutsche Bauzeitung* Dr. V. Ehmann gives a statement of his favorable experience in the use of galvanized-iron pipes for the distribution of water in Wurtemberg and in the villages of the "rauhe Alp." The water is delivered, in many cases, under a pressure of from six to eight atmospheres. Pipes which have been in use for a number of years showed only a slight incrustation, and the coating of zinc was apparently intact. No analyses of the water passing through the pipes are given.

RAYMOND'S compressed lead sash weights (with wrought iron fastenings), solid, compact, noiseless, are made under hydraulic pressure, thereby securing a greater solidity and density of metal and a smoothness of finish not found in the old style of cast weights. The wrought iron rods run completely through the weight and are securely fastened at the lower end. The linked weights are very convenient for placing in and removing from pockets with small openings, and will be readily appreciated by the trade.

THE Moule earth closet, as greatly improved, is giving most excellent satisfaction wherever used. It has come to be regarded as almost indispensable wherever there are not stationary conveniences in the house; and in respect to smell, "modern improvements" are rarely as satisfactory. "Nothing," says an excellent authority in speaking of these earth closets, "can be more effectual, and its use has every sanitary advantage." Descriptive circulars may be had from Myers' Sanitary Depot, 94 Beekman street, New York city.

MESSRS. ORR & LOCKETT are the Western agents for a device for the opening and closing of outside blinds that cannot but come into general use, because of its utility and simplicity of action. It is called the Dudley Blind and Shutter Worker, made by a company of that name, of which C. S. Kempton, of New York, is manager. It prevents all slamming and rattling of blinds. It is strong and durable, and has many other admirable qualities besides that of enabling the opening and closing of blinds without opening the window.

THE patent heat-saving and ventilating grate manufactured by Edwin A. Jackson & Bro., No. 77 Beekman street, New York, has deservedly attracted wide attention. Its merit is based upon the fact that no ven-

tilators are required where this grate is used. The nearer air-tight the rooms are made, the better the result obtained. The grate will keep the room filled with pure warm air, changing constantly and more or less rapidly, according to the amount of fire required. It is a perfect automatic ventilator, and equals three ordinary grates in heating power.

L. S. GRAVES & SON, Rochester, New York, manufacture screw, geared, hydraulic and hand elevators, for hotels, office and mercantile buildings, warehouses, or manufacturers' use, combining the most approved mechanical principles and patented devices for safety, durability, noiseless running and economy of power, and which are in use with the best results in so many large establishments in all our cities. They also manufacture boot and shoe machinery, shafting, pulleys, hangers and couplings, guaranteeing all their work to be of the very best that can possibly be made in their line.

OVER two hundred elevators in New York, Philadelphia, Chicago, Cincinnati and other places, attest to the value of Zimdar's patent pneumatic bells as applied to passenger elevators, which, it may seem somewhat singular to some to say, are operated entirely without the use of wires or batteries! They captured a prize medal at Paris in 1878, and also at the American Institute in New York in 1881. They are coming into general use, which is ample commendation of their real merit. They are manufactured by C. E. Zimdars, New York. L. S. Baldwin & Co. are the agents in Chicago.

EIGHT years of workshop use have demonstrated the superiority of Marston's (Boston, Mass.) hand and foot power saw, which seems as indispensable to carpenters, cabinetmakers wheelwrights and all woodworkers. These machines are in large use, and are especially the handiest for making picture frames, jewelry and cigar boxes, beehives, etc. They are well made machines, capable of doing heavy as well as light work, and on which can be done all the variety and kinds that are usually done on a steam saw table, such as mitring, grooving, rabbeting, cutting tenons, boring, etc., and with emery-wheel for grinding tools.

AT the end of the notices relative to the contractors (on the second page of the Commercial National Bank Building Supplement) of last month, the inference was inadvertently given that both the vault and bank work was done by one company. This impression we desire to rectify in the following particulars: All the fire and burglar proof vault doors and safes for the bank and for the Safe Deposit Company (except two doors), and all the boxes in the Safe Deposit Company's vaults, are furnished by the Diebold Safe & Lock Co., who furnish largely Chicago banks, also bankers throughout the country, with their security. This correction is due to the company and its vice-president and general manager in Chicago, Mr. J. W. Norris.

THE use of furnaces, universal as it is, has led to the production of many different forms, some of them combining the best known principles of heat radiation, combined with an economy of fuel consumption. One of the best, judging from practical experience during the past severe winter, is made by the Jones & Erling Manufacturing Co., of Chicago; the furnace in question having taken the place of one that belongs to a class that is quite common in Chicago houses, and which consumed the maximum of fuel and producing the minimum of heat. This furnace, in a two-story and basement house, with an ordinary amount of fuel, but with open draughts, necessitated the opening of doors when the thermometer marked 20° below zero, and in warmer weather the draught action was so perfect as to make it all that was desired. In calling the attention of architects and builders to the "Eclipse" furnace, the aim is to provide house owners with a furnace that can always be relied upon. The office of the firm is at 47 and 49 Dearborn street.

THE Portland Cement Works, "Stern" Toepffer, Grawitz & Co., at Stettin, Germany, which are represented in this country by Gustav Grawitz, at 165 and 167 Broadway, New York, were awarded a special first merit by the jury of the Sydney International Exhibition, 1879-80. The jury in making their report on the "Stern" (Star) Portland Cement say: "Of excellent quality, finely ground, produces a superior mortar, of great strength, hardness and density." At this exhibition there were six different Portland cements put to seven days' test, and the strain to which they were subjected after having been dried for twenty-four hours in the test-room, and having subsequently been kept in water six days, showed a tensile strength per square inch, neat cement, of 634.2 lbs., and of one part cement and two of sand, of 325.8 lbs., leading all the other cements nearly two hundred pounds in favor of the former, and over one hundred pounds in favor of the latter. At the exhibition in Philadelphia in 1876, the testimonial of the jury was that the "Stern" Portland Cement on exhibit had no superior.

MR. W. H. DOLMAN, of New York, is the patentee of what is becoming widely known as Dolman's Fire Damper, which is claimed to be an ample and effective device for rendering buildings fireproof for all practical purposes. It is a simple and inexpensive manner of preventing the spread of fire from one room to another, and is useful also in giving houses a cool temperature in summer and warming them in winter. It successfully prevents the fire from burning up through, or down through, wooden joists and beams, and it is claimed that it gives great security with light weight of material, and at a slight cost, thus obviating the great expense of iron joists and terra cotta filling. Public tests have been given and witnessed by prominent officials, including insurance men and members of the fire department, and all have been pleased with the demonstration; that given on the 20th and 21st ult. in Chicago being complete and thorough, the underwriters strongly recommending its use in the construction of factories, warehouses, etc., and in villages where the local fire departments are inefficient, the burning of houses would be made exceedingly rare by its use. The address of the inventor, Mr. W. H. Dolman, is care of Munn & Co., 261 Broadway, N. Y.

HEATING and heating apparatus are matters which always commend themselves to our thoughtful consideration. Everyone who has a house to live in, or who ever expects to have a home, is concerned as to the best

manner in which that home is to be heated. He understands the necessity for providing a means for the perfect circulation of heat, so that his home shall at all times be pleasant and comfortable. If he is the owner of a large public building, his consideration and care for providing the best means to heat the building. Left to depend entirely upon his own judgment, he might fail to recognize the best means to provide heat, but the probabilities are that if he were to consult his architect or engineer, or examine any of the many public and private buildings in the city, he would learn that the system of heating by a perfectly circulating radiator was the one most generally adopted. The satisfaction given by this mode of heating is both genuine and meritorious. In this mode of heating, the Detroit Steam Radiator Company's Patent Cast-iron Steam Radiators are very largely in use in all our cities, and are used for heating not only private and public buildings, schoolhouses, etc., but also railroad trains, steamboats, etc., with the best results. Surely a radiator which has come into such general use, and has been so warmly endorsed and commended by those who have used them, is entitled to consideration by everyone who is in search of a perfect circulating radiator.

TILE-MAKING has become one of the fine arts. It is an old industry, dating back for centuries; but the perfection of art in the manufacture of tiles has only been successfully achieved in quite modern times. A few years ago all the really artistic tiles used in this country were imported. The European manufacturers had brought their artistic work to such a high state of perfection that the fame of their wares extended to almost every part of the world. Many a palatial home in the East was decorated with these foreign tiles. But an industry so vast as this was likely to become, was seized upon by American ingenuity and at once turned to good and profitable account. At first tile-making was confined to a few localities east. The success which attended these ventures was something remarkable, and tiles were produced in the very highest style of art, and were sent abroad, challenging comparison with those made at the celebrated works in Europe. The events of less than decade show that the progress of this branch of industry has indeed been marvelous, and the center of the tile-making industry has come to the West. Seven years ago a little establishment was located at Indianapolis, Ind., and employed only twelve hands. The industry was then small, the capital of the concern was small, and tile-making was conducted on a small scale; but from so small a beginning, the work started at that time have grown to an extent scarcely without a parallel in any industry in this country. The United States Encaustic Tile Works, of Indianapolis, employ over three hundred hands; among them skilled artisans from the best factories in the old world, as well as the best American talent. One year ago the company began the manufacture of majolica, or high art tile, and with their accustomed industry have progressed since that time at a rate that is a splendid testimonial to American enterprise. The art expressions in clay, which this company make, enhanced by their many beautiful enamels in delicate shading and handsome tints, consist of conventional and natural arrangements of flowers, ideal heads, flights of birds, and inscriptions on figured backgrounds, diaper and rosette patterns, geometrical and radiating forms, etc., in from an eighth of an inch to three inches relief. Their reputation is international. Their trade is not confined to this country alone, they having shipped goods in considerable quantities to Cuba, the Bermuda Islands and Canada. They have recently established agencies in all the large cities of South America and Mexico, and are rapidly building up a fine export trade.

Correspondence.

OMAHA, Neb., April 1, 1884.

To the Editor *Inland Architect and Builder*:

May I intrude a few remarks in your valuable and interesting journal in reply to a letter in the March number, from H. R. Wilson, architect?

While I fully indorse all that Mr. Wilson has urged in support of his suggestion for the establishment of a society or association of architects in Chicago, may I be permitted to offer an additional suggestion—that is, to form it as a Western association, embracing the larger and fast-growing cities of the West, in which many architects of good standing and ability have located, and who from various causes are denied the privilege of attending or offering themselves as members of the American Institute of Architects in New York, would embrace the opportunity of doing so in Chicago, and thus be the means of uniting in future the men who are destined to make this the greatest nation of the earth. It will also infuse new life and energy to members of a profession who, more than any other, need unity of action and comparison or exchange of ideas. This can only be effected by the establishment of such institutions as have been advocated.

Trusting that you will bring this matter prominently to the notice of the profession, and also be the means of producing tangible results,

Respectfully submitted.

SIDNEY SMITH, Architect.

We have received other letters from architects throughout the West calling for an association of architects, and would be glad to hear further the views of members of the profession upon this subject. The forming of such an association would necessitate the thorough coöperation of all, and, as our correspondent suggests, not of any one city, but of the entire West. While the present season's activity will not permit a large amount of thought upon the subject, we wish that architects would bear the project in mind and send us their views upon it, so that when the time for the active work of organization has arrived we may know upon whom we can rely at the outset. There is no doubt that the want of an organization has been long felt by our Western architects, but how to accomplish its formation will be a matter for future consideration.—[ED.]

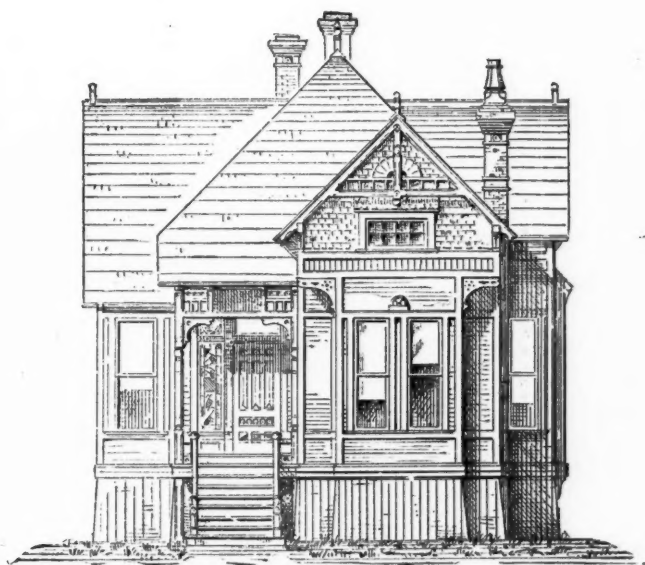


South-ELEVATION

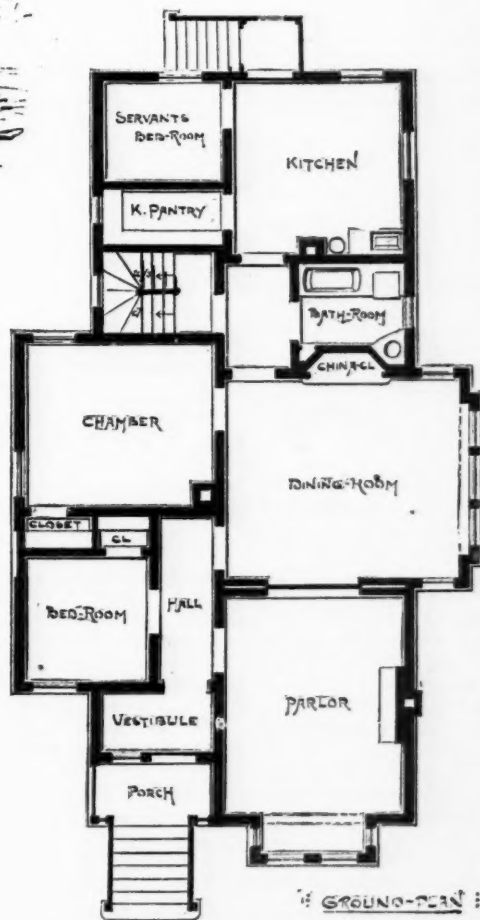


SKETCH for a SUBURBAN
COTTAGE

Scale 1" = 10'



FRONT-ELEVATION



GROUND-PLAN

New Publications.

THE SLATE ROOFER. By D. AULD, Jr. Cleveland: AULD & CONGER, Publishers.

This useful and handy little book is specially adapted for the use of quarrymen, roofers, architects and dealers, and to such it must prove a *vade mecum*. Its contents comprise roofing, slate tables, rules for measuring slate-work, designs for ornamental work, nails required for a square, rules and information for new beginners, and much other valuable information to the trades named. It is in convenient pocket form and contains only such information as is necessary in every-day transactions of persons in the slate business. It contains a number of illustrations of slate roofing in a large variety of forms, showing how they are laid.

HOUSE DRAINAGE AS CONSTRUCTED BY THE DURHAM HOUSE DRAINAGE CO. By Wm. PAUL GEBHARD, Chief Engineer, New York.

This is another of those admirable little treatises on a question of so much sanitary importance, and which the attainments of the author have eminently qualified him to write about in a clear, practical way which is peculiarly his own. The title of the book is sufficiently explanatory to render it unnecessary to mention details, even did space permit. The entire question of house drainage is discussed as constructed by the Durham system, which, it must be admitted, is one of the most thorough in use. The architect, the builder and the plumber will find much to interest and instruct them in the pages of this little pamphlet, and all who contemplate building can be profited by its perusal.

THE ILLUSTRATED CATALOGUE B, issued by the J. L. Mott Ironworks, New York, is a book in pamphlet form which can be profitably consulted by everybody who contemplates building a house either for public or private use. Patent washout closets, flushing rim earthenware, and enameled iron hoppers, cisterns, service boxes, flushing tanks, etc., are all handsomely illustrated and explained. The company is one of the most extensive in its line of manufacture of any in this country, and the articles they manufacture are the very best and are in extensive use. Their illustrated Circular A is "The Bathroom Illustrated." They are the sole importers of the "Imperial Porcelain Baths," which are specially manufactured for them in England; besides they are extensive manufacturers of all kinds of porcelain-lined and other baths.

The *Art Interchange* of March 27 contained two colored studies by Miss Caroline Townsend—one suitable for decorating a hand-bag, and the other a border for stenciling or embroidery. A beautiful design for ceiling decoration also appeared in that issue, as well as a study of a toad, designs for a set of fruit d'Oyleys, several designs for small articles in brass repousse work, designs of thistle for cup and saucer decoration, and a panel design of humming-birds. Published by William Whitcock, 140 Nassau street, New York. Sample copy on receipt of ten cents. The *Art Interchange* of April 24 will contain a beautiful design in color (13 by 13) of a female head for plaque decoration. It is unlike any decorative head heretofore offered for sale. Against a delicate blue background is shown the nearly profile view of a blonde, whose light hair is ornamented by a band of marguerites. The head was painted by the well-known artist Mrs. Mary B. Odenheimer-Fowler. In addition to this charming design there is to be an admirable study (in black and white) of a cat's head and paws, suitable for panel or banjo decoration. Several designs for brass repousse work. Excellent working drawings for a carved wood mantel and top, and a beautiful design of swallows for cup and saucer decoration, are among the other attractions of this issue. In the valuable Note Query and Answer Department, there will be given instructions on artistic home furnishing, decorative novelties, schemes of color for decoration, suggestions for wall and window hangings, carpets and upholstery, painting in water, oil and mineral colors, embroidery notes, and suggestions for brass repousse work. In short, the *Art Interchange* of April 24 promises to be one of the most attractive issues of this valuable art journal.

FOUNDATIONS AND FOUNDATION WALLS FOR ALL CLASSES OF BUILDINGS. Pile-Driving, Building Stones and Bricks, Pier and Wall Construction, Mortars, Limes, Cements, Concretes, Stuccos, etc. 64 Illustrations. Practical explanations of the various methods of building foundation walls for all kinds of buildings; tables of the weight of materials, etc.; the kind of materials used, the load sustained, and the size of wall piers, etc.; the use of piles in foundations, with terms, etc.; plastering, mortars, limes and cements. Extracts from New York building laws, with notes, by Geo. T. Powell, A. and C. E., New York; to which is added a treatise on foundations, with practical illustrations of the method of isolated piers as followed in Chicago, by Frederic Bauman, architect. Revised and enlarged by the addition of much new matter, by G. T. Powell. WILLIAM T. COMSTOCK, 6 Astor Place, N. Y., publisher. Price \$2.

The subject of foundations, their preparation and construction, have in the past received very little attention from practical writers. The reason has been, perhaps, not so much because of a dearth of knowledge on the subject, but because the knowledge was in the hands of men more used to working out problems with their hands than transferring them to paper. The result has been that experience has been almost the only teacher, and the number of cracked walls, and structures on the verge of tumbling down, of which every large city can "boast," evidences the fact that in such cases, as is usual, experience is a costly teacher. Each locality has its own peculiarities of soil, and the experience gained in one section is often comparatively useless in another. In the volume under consideration the author has wisely confined his remarks to the two largest building points in the United States, and has given in a brief and concise form some of the more important facts. The book is also valuable for its directions in the handling of cements, concretes, mortars, etc., and, as a whole, will doubtless prove a valuable book in the hands of architects or contractors, not alone in New York and Chicago, but everywhere.

THE GLASS DEALER'S READY RECKONER; consisting of a series of tables of Superficial Measurement, calculated from 1 to 132 inches in width, by 2 to 180 inches in length (1 by 2 to 132 by 180). Compiled and published by JOHN THORPE, 243 Broadway; P. O. Box 986, New York. Price \$1.50 each, or four books for \$5. Will be sent by mail, postpaid, on receipt of price (money or P. O. order).

This book contains 132 pages of solid figures, and though each page is entitled "Superficial Measurement," it is not to be supposed that any of these pages are superficial, but that the work is perfectly adapted to the purpose for which it is intended.

THE AMERICAN FURNITURE GAZETTE. Chicago: DE BERARD PUBLISHING CO.

This publication (monthly), in the interest of the furniture trade, has been making rapid strides of late, and it deservedly occupies a foremost place as one of the very best trade publications of the day, each succeeding number seeming to be an improvement upon its immediate predecessor. The general furniture trade, both east and west, seems to appreciate the efforts of the publishers to furnish the trade with a first-class publication, and its pages afford ample evidence that it is in the hands of its friends, who are sustaining it by a very liberal advertising support. It is always a welcome visitor among the furniture trade. It comes out this month in a new dress and even a more pleasing and artistic form than formerly.

Inventive Genius in Building.

- 294,524. Capped Wood-Screw. Edward Stiemke, Milwaukee, Wis.
- 294,535. Speaking-Tube Annunciator. Joseph Walter, New York, N. Y.
- 294,573. Fastening Device for Doors. John E. Bozell, Tipton, Ind.
- 294,626. Bank-Vault. John T. Hough, Chicago, Ill., and John A. Harper, Pittsburgh, Pa.
- 294,647. Illuminating Tile. Jacob Mark, New York, N. Y.
- 294,665. Roofing Composition. John F. Perry, Chicago, Ill.
- 294,674. Water and Steam Cock or Faucet. Jos. Richter, Cincinnati, O.
- 294,676. Process of Preserving Wood. William W. Robinson, Ripon, Wis.
- 294,724. Router-Plane. Henry P. Cope, Detroit, Mich.
- 294,762. Ratchet Bit-Brace. William R. Clarkson, Buffalo, N. Y.
- 294,773. Ventilating-Damper. John P. Dorr, Neenah, Wis.
- 294,774. Sash-Fastener. Frederick Eberlein, Chicago, Ill.
- 294,777. Wood-worker's Dog. John Forbes, San Francisco, Cal.
- 294,785. Door-Spring. William W. Jackson, Chicago, Ill.
- 294,822. Knob-Attachment. Oscar Stoddard, Detroit, Mich.
- 294,842. Electric Door-Pull. Charles Beile, Brooklyn, N. Y.
- 294,855. Siding and Ceiling for Buildings. George W. Crawford, Davenport Centre, N. Y.
- 294,866. Stone-dressing Machine. Essington N. Gilfillan and Samuel P. McKelvey, St. Louis, Mo.
- 294,905. Pneumatic Door-Check. Gustavus S. Perkins, Hartford, Conn.
- 294,914. Planing-Machine. James A. Roberts, Detroit, Mich.
- 294,917. Mechanism for operating Doors of Buildings. Hamlin J. Shaw, Somerville, Mass.
- 294,919. Bench-Plane. Jacob Siegley, Wilkesbarre, Pa.
- 294,949. Manufacture of Wrought-Iron. Christopher Zug, Pittsburgh, Pa.
- 294,985. Gauge Attachment for Boring-Bits, etc. John Fuller, Sr., Seneca, Kans.
- 295,010. Water-Closer. Stanton M. Howard, Wheeling, W. Va.
- 295,019. Brick-Machine. Lewis B. Kennedy, Keokuk, Iowa.
- 295,026. Brick-drying Kiln. Benjamin G. Lockett, James W. English, and John W. Murphy, Atlanta, Ga.
- 295,040. Steam-Radiator. Dr. F. Morgan and John Robb, Akron, O.
- 295,067. Dovetailed grooved Brick for Building Purposes. George E. Stearns, New York, N. Y.
- 295,100. Combined Bevel and T-Square. Stephen H. Bellows, Athol, Mass.
- 295,142. Sash-Fastener. Henry H. Asimont, Duluth, Minn.
- 295,163. Window-Screen. John A. Grove, Bluffton, Ind.
- 295,166-168. Skylight. Geo. Hayes, New York, N. Y.
- 295,173. Lath-sawing Machine. Wm. E. Hill, Kalamazoo, Mich.
- 295,196. Mortar-Mixer. Wilhelm Prochnow, Milwaukee, Wis.
- 295,253. Sash-Holder. Thomas Brown Jones, Hiawatha, Kans.
- 295,258. Automatic Rain-Water Regulator for Cisterns. Frederick E. Lord, St. Louis, Mo.
- 295,269. Trestle for Scaffolding. John T. Miller, Memphis, Mo.
- 295,283. Metallic Roofing-Shingle. Ephraim B. Repp, New Windsor, Md.
- 295,284. Lumber-Drier. Lafayette Rollins, Mountain Creek, Ala.
- 295,343. Steam-Radiator. Robert Brass and John Chapman, Brooklyn, N. Y.
- 295,351. Vise. William H. Cloud, Detroit, Mich.
- 295,389. Scaffolding. John Thomas Haskell, Norwalk, O.
- 295,418. Apparatus for drying Lumber. Aaron S. Nichols, Pullman, Ill.
- 295,461. Seat for Public Buildings. George H. Thompson, Plattsmouth, Neb.
- 295,501. Door-Hanger. Edward Y. Moore, Chicago, Ill.
- 295,507. Door-Check. John Y. Runyan, Flint, Mich.
- 295,537. Weather-Strip. Eugene E. Gillett, Western Union, Wis.
- 295,558. Brick-Machine. Phillip Henry Kells, Adrian, Mich.
- 295,582. Handle for Dial-Lock Knobs. Tracy L. Paine, Milwaukee, Wis.
- 295,630. Sash-Balance. Mahlon B. Gladman, Hopkins, Mo.
- 295,667. Lumber-Kiln. Ephraim Myers, Suspension, Ala.
- 295,678. Safety-Stop for Elevators. Ellison Saunders, Austin, Tex.

Synopsis of Building News.

Bloomington, Ind.—The outlook is most favorable, and the prospects are that a large amount of building will be done during the ensuing season. Good mechanics are scarce.

Architect J. L. Nichols: Two two-story houses, brick and stone, slate roofs, one 64 by 70 feet, the other 113 by 86 feet, to cost together \$60,000. For Christian Church, one-story brick and stone, slate roof, 104 by 67 feet, to cost \$13,000. For Hully Showers, two-story frame, 67 by 58 feet, to cost \$7,000. All the above under way; builders Nichols & Son. For J. W. Bryan, one-and-a-half-story frame, 35 by 38 feet, to cost \$1,100. For Ben Rogers, one-story frame, 40 by 43 feet, to cost \$1,200. Last two contracts not let.

Cedar Rapids, Ia.—The outlook for this place is exceptionally good, and the prospect is that a larger number of important buildings will be erected this season than in any previous one. There is some chance of a scarcity of brick in the early part of the season. It is a little too soon yet to judge of the labor supply.

Architects Josselyn and Taylor, trustees Coe College, an addition to Coe College, Cedar Rapids. Three-story and basement, walls brick and stone, shingle roof, 62 by 42 feet, to cost \$15,000; contracted; A. H. Connors, builder.

Chicago, Ill.—The weather has, for the most part, not been as favorable as architects and builders could desire, being too cold and wet. Consequently new building projects have been somewhat delayed. But there has been a still more serious difficulty in the way—one to which allusion was made in our last issue—and that is the great scarcity of common brick. Enormous as is the aggregate capacity of the yards in this city and the suburbs, there has been no brick to be had, and many building projects under way, which have already been contracted for, will have to remain in statu quo until the new brick crop, so to speak, is ready for the market. Many large buildings that are under cover are being rapidly pushed to completion, and several of the finest of these, already fully reported in these columns, will approach completion by the 1st of May. The trouble in regard to brick will not be of long duration, unless trouble arises in other quarters. There are indications that serious disagreements may arise between employes and employers, outcroppings of which have become manifest during the past week or ten days. Notwithstanding the large number of building permits issued since the opening of spring, and the brief lull at the Building Department, for reasons already given, a walk around among the architects could not fail to convince anyone that they are about the busiest men in the city. Their boards are full of work; in some instances the working force has been increased, and good draughtsmen have been in some request. The large commercial building projected by Marshall Field, will probably be put under way at an early day, as it is understood that Mr. Beman, the architect, has been directed to proceed with the plans. This building, as previously noted, is to be eleven stories high, and will occupy the now vacant valuable lot at the southwest corner of La Salle and Adams streets. An important development since our last issue is the official announcement from New York that architect W. L. B. Jenney, of this city, had been chosen architect for the magnificent new office-building to be erected at the northeast corner of La Salle and Adams streets, for the Home Fire Insurance Company of New York. The structure will be eight stories and basement high, of pressed brick,

elaborately trimmed with stone, and will be one of the handsomest and most imposing edifices on the thoroughfare. Mr. Jenney is in a position to be congratulated, as he was chosen from among more than half-a-dozen of architects of acknowledged ability of the city. The buildings on the lot are now being removed, and the work of construction will soon be begun.

There is to be a continuation of last year's street paving operations on an extended scale this season, and wood and granite will be the principal material used. On the south side the paving of Clark, Madison, Wabash avenue, Randolph and Lake streets will be done with granite blocks, a paving which seems to meet the views of the property owners along these streets as being the most substantial. Clark street is now torn up by the laying of the large mains of the Chicago Gas Light & Coke Co., and the granite paving will soon follow. This same company has already petitioned the council for the privilege of tearing up some of the streets which were so substantially laid with granite last year, but have so far been refused the sanction of Commissioner Cregier to any such vandal operation. To tear up the granite blocks laid only last year would completely ruin the streets, and as the contractors have guaranteed these pavings for five years, the proposed work of the gas company, if carried out, would relieve them of all further responsibility. The gas company seems to entertain very little regard for the public in this matter. The new gas company laid its mains before the streets named were paved. The old gas company simply want now to put down larger mains. The public understand that its mains on all the leading thoroughfares are quite large enough. It is to be hoped that Commissioner Cregier will remain firm in his determination to protect the newly-paved streets, and not allow a company that in the past has shown so little consideration for the rights of the public to continue its unreasonable destruction of public improvements, especially when a better quality of gas, and enough of it, is available with no further inconvenience to the public.

The real-estate reporter of the Chicago *Tribune* has this to say in regard to the "whitening" of brick walls, which, here and there, when a wall is finished, may often be seen in various parts of the city. He says: "While wandering about the other afternoon with a friend of mine, who is an old contractor and builder of the city, I made some inquiry about the cause of the white exudations that disfigure so many fine building fronts in Chicago, and have so long proved so vexatious to architects and builders, not to mention the owners of houses. My friend said there had long existed a popular impression that the white saltpetre or magnesia crystals came from the face brick or stone veneering of the houses, but that it had recently been ascertained that the entire trouble arose from the common mortar or brick backing of the front, the lime or cement in each being strongly impregnated with sulphate of magnesia, which had come to be known as saltpetre. It seems that the discovery was made by placing some tarred felt or paper between the common brick and mortar and the veneering, which entirely prevented the magnesia from reaching the front. He showed me several buildings in which the felt had been used by himself and others with the very best results, no white substance whatever appearing. In addition to the good the tarred substance does in this direction, it also serves to keep the interior of the house perfectly dry and warm. In view of the great discomfort experienced on account of the discolorations on so many buildings, this simple fact, which I have no doubt is a fact, ought to be generally known." As the "whitening" is evidently due to different causes in different kinds of brick, experience will have to teach the cause and the remedy in each case.

Architect Beman is proceeding with the plans for the new eleven-story office-building at the southwest corner of La Salle and Adams streets, for Marshall Field, and the building will be erected without delay.

Architects Silsbee & Kent: For Potter Palmer, four-story and basement brick and stone structure, 40 by 70 feet, to cost \$20,000; plans finished.

Architect Otto H. Matz: For Bartholomae & Leicht, six three-story stone-front flats, seven rooms on each flat, with paved cellars, laundries, etc.; also brick barn, flats 60 by 80 feet, to cost \$24,000, to be completed June 1. For Dr. W. W. Allport, a three-story brick building of pressed brick, stores below and upper part flats, 44 by 108 feet, to cost \$16,000. This building stands opposite to main entrance of Humboldt Park, and will also contain a public hall. To be completed June 1.

The new Hospital for Women and Children, corner Paulina and Adams streets, will soon be commenced. The Board has adopted the plans prepared by architect Matz. It will be an imposing structure, five stories high above and ten feet cellars, with a south front of 150 feet. The material will be of red pressed brick, brownstone and terra cotta. The main features of the front are a central pavilion, flanked at each end of building, octagonal towers run up above projecting bays. The whole building is to be surmounted by a high mansard, covered with the best red slate, pierced by massive dormers. The cost of the Hospital, including a projecting wing, connected with the main building by an iron and glass corridor, will be about \$80,000.

Also for P. Schoenhofen, a three-story brick dwelling, icehouse, stable, etc., just contracted for, to cost \$8,000. For Harry F. Brand, two-story and basement, brick dwelling-house, 24 by 60 feet, to cost \$6,000.

The Peter Schoenhofen Brewing Co. will erect, during the season, a modern barn and stabling for 100 horses. The second floor, on which the stalls are placed, will be supported by four columns and steel beams. The building will measure 100 feet each way, and will cost \$30,000. Ample provision is made for storage of hay, oats, feed, etc., carried up by an elevator. The work will be started as soon as new bricks come into market.

Also for Consul H. Clausenius, a three-story and basement brick residence, the front to be of Milwaukee brick with basement of Bedford stone and Berlin stone trimmings above. The entrance will be through a stone loggia, ornamented with granite columns and carved capitals. The interior finish will be in cherry, white and red oak and pine. Work will be commenced at once, as the contracts have all been let. The cost will be about \$15,000.

Architect Fred W. Wolf: For L. Wolff Manufacturing Co., basement and four-story factory, of brick with limestone trimmings, 75 by 142 feet, to cost \$30,000; contracts all let and work will commence in a week or so. For Ernst Bros., new brewery, brewhouse 32 by 32 feet, icehouse 52 by 52 feet, engine and boiler house 30 by 35 feet, to cost \$18,000; under way and ready for roof. For F. Madlener, eight flats in four houses, 60 by 96 feet, to cost \$20,000; nearly finished. For Jo Junk, new brewery, 34 by 80 feet, to cost \$12,000; Ph. Kroeck, store and dwelling, 25 by 42 feet, to cost \$3,500; foundation in. For J. Leisy, Cleveland, O., wash and storehouse, 45 by 60 feet, and boiler house 36 by 50 feet; just commenced. For C. F. Schmidt, Indianapolis, brewhouse, engine and boiler house; plans completed and taking figures. For Foss & Schneider, icehouse, brewhouse, and barn; under way. For Muskegon Brewing Co., brewhouse 36 by 36 feet to cost \$9,000; under way. For the Joe Schlitz Brewing Co., machinery and icehouse; projected. For Bernhard, of Canal Dover, O., a new brewery; working plans about done.

Architect J. J. Egan has prepared plans for a residence for Charles Trego, which will be erected on Lake avenue, near Thirty-ninth street. It will be modern Gothic in style, irregular, 46 by 70 feet, to be built of pressed brick and brownstone, and three stories above the basement. The cost will be about \$40,000. Also plans for a new parsonage for the new St. John's church, at the corner of Clark and Eighteenth streets, to cost \$18,000. Also, the contract has been let for a modern flat building for Frank McAuley, on Huron, near State street. It will be three stories high above the basement, 25 by 70 feet, with a limestone front; to cost \$11,000. Also plans for two houses for John O'Connell, to be erected on La Salle avenue, near Schiller street, 25 by 50 feet, and to cost \$8,000 each. Also plans for a three-story building for stores and flats, 40 by 80 feet, at the corner of State and Michigan streets; the front to be of pressed brick with stone dressing. Also, for a Catholic school building for Rev. D. H. Reardon, at the corner of State and Forty-first streets, to cost \$16,000; a small convent at Brighton Park, adjoining the new church of St. Agnes, for Rev. M. Hogan, to cost \$8,000, and a Catholic church at Clinton, Iowa, 65 by 130 feet, 46 feet in clear interior height, with nine hundred sittings in the audience-room. It is a modern Gothic structure of pressed brick and Iowa stone, and will cost \$40,000.

Architects Wheelock & Clay have let the contracts for three brick stores for D. L. Streeter, on Van Buren street, near Western avenue, 60 feet front by 50 feet deep, with flats above; cost, \$7,500. A dwelling for Dr. James Tucker, on Thirty-fifth street, near Cottage Grove avenue. The house will be 25 by 43 feet, two stories and basement, built of pressed brick with brownstone trimmings, and will cost \$5,000. A house for J. Rathbun, on Prairie avenue, near Twenty-eighth street, 40 by 68 feet, with two stories, and cellar and attic. It will be constructed of brownstone and pressed brick to the first story, slated with red slate on the second story, with a slate roof; cost \$20,000.

Architect W. L. Carroll has the plans for improvements of the Revere House. Two stories will be added, and a mansard roof with a tower and pediment features, and many improvements will be made in the interior of the building. The cost of the improvements will be \$30,000.

Architect Edward Bauman has let the contract for the erection of a three-story block of flats, 25 by 70, on Wrightwood avenue, for Dr. Williams. It will have a pressed brick front, and cost \$9,000.

Cleveland, O.—Prospects and present work fair; most active in frame and brick dwellings ranging from \$10,000 down. Architect George H. Smith is building,

for Savings and Trust Company, a basement and five stories fireproof building, front polished granite, basement terra cotta and pressed brick above, 45 feet 3 inches by 150, height 104 feet from sidewalk, to cost \$120,000; commenced; divided contracts.

Coldwater, Mich.—Weather backward and the season not fairly opened. Architect M. H. Parker: For Ralph Clarke, a two-story and basement dwelling-house, steep roof, pointed style, built of wood above basement, basement of stone, 32 by 76 feet, to cost \$5,000; just commenced. For Lincoln Briggs, Quincy, Mich., a two-story frame dwelling, hip roof, shingled, 34 by 64 feet, to cost \$3,800. For David Fuller, two-story frame dwelling, 28 by 52 feet, to cost \$2,000.

Detroit, Mich.—Building prospects good, and a large amount of work will be done during the season.

Architects Wm. Scott & Co.: Plans completed for residence for Chas. H. Smith, and barn. Both will be free Renaissance in style, and, judging from the elevation drawings, the former will rank among the foremost of the stately residences of Detroit. Many of the forms resorted to by the architects will probably receive numerous criticisms until the public become familiar with them. They are certainly novel. Materials compressed brick, heavily trimmed with variegated and pure brown Lake Superior stone, cut and molded into forms peculiarly designed to obtain the desired effect without the intervention of the stonemason's chisel. No distinctive line is shown isolating the sub and superstructure, as generally seen in architecture. The rock-faced variegated stone forming the substructure will be carried up to the height of the sills and lintels of the first story at different points. The natural massiveness of this work will be toned down and graced by friezes and panels of finely wrought decorated red terra cotta, and the chimneys will be caught up and also gracefully wrought up above the roof in terra-cotta treatment. Total expense of house and barn \$50,000. Also, same architects are just completing the designs for the six-story block of William B. Wesson and Geo. B. Hill. It will be 50 by 100 feet in size, and will form one large store, rich iron columns and ceiling-work being the only obstructions to a clear space from basement to attic, and from wall to wall. With barn added, total cost will be \$50,000. Also letting the contracts for an eight-room two-story Colonial cottage for James A. Randall. It is to cost \$7,000.

Architect A. C. Varney: Prospects for building very fair at the present time. For Wm. A. Butler and Wm. Chope, four-story brick and stone, for stores, to cost \$1,200. For M. W. O'Brien, two two-story brick dwellings, to cost \$5,000. For R. Wiley, two-story brick dwelling, to cost \$5,000. For Mrs. Dudley, alteration of her brick residence, \$5,000. For Mrs. Jane Baer, two-story brick dwelling, to cost \$3,500; under way. For Thomas Smith, two-story frame dwelling, to cost \$3,500. For Mr. Farnum, brick stable, \$1,000. For H. Vernor, two-story frame, to cost \$4,000.

Detroit plasterers, and there are between eighty and one hundred of them, want an increase of wages, and a few days ago struck for \$3.50 per day, the rate paid last summer. The strike is considered premature by some, but Austin & Brennan, employing between twenty and thirty men, will grant the advance, and Hanely & Bro., employing eighteen, will pay the sum asked to certain ones, but not to all. The employers are willing to grant the increase to the best men, but claim that the services of many of the plasterers are not worth \$3.50 per day.

Dubuque, Ia.—Prospects fair, and considerable building will be done. Architect F. D. Hyde: For A. Christman, also for J. P. Scott, additions and alterations of residences. The former to cost \$4,500 and the latter \$2,500. For James Howie, two-story brick residence; cost not estimated. For J. H. Steiner, pressed brick front and extension to store, to cost \$5,000. For Jas. Sally, two-story brick residence, to cost \$2,000. For Hyde Clark, changing roller-skating rink into a natatorium, to cost \$3,000.

Fort Wayne, Ind.—The prospects for building are very encouraging, but as the season has not fully opened yet, it is a little premature to say the amount of building that will be done. It will, however, equal that of last year, if not exceed it. As there was a good fall last year for building, a great deal of work was left over, which is all under way now and rapidly approaching completion.

Architects J. F. Wing & Co., Masonic Temple and Opera House, four stories, cut stone, pressed brick and slate roof, 70 by 120 feet. Relet contract, after standing four years up to the second story, to complete the opera house and enclose the building, for \$26,000; to be completed by the middle of October; work now under way; general contractor Christian Boscher, and W. & J. Geake stonework. Gate lodge for Lindenwood Cemetery, one-story, Michigan sandstone above the water-table, rock-face, slate roof, style Gothic, 35 by 35 feet, to cost \$6,000; projected. Ready for bidders now: For Julius Dick, Huntington, Ind., two-story frame residence with basement and attic, slate roof, style Queen Anne, 40 by 50 feet, to cost \$6,000; projected. For C. L. Cindliver, three-story brewery, brick and stone, tin roof, 36 by 82 feet, to cost \$5,000; projected. For English Lutheran church, addition of lecture-room, two stories, brick and stone, slate roof, steam heating, 32 by 74 feet, to cost \$5,000; projected. For John M. Coombs, two-story frame Queen Anne cottage on farm near city, 25 by 30 feet, to cost \$2,500; under way. For C. A. O. McClellan (Auburn, Ind.), brick and stone residence, addition to a bank building, 25 by 58 feet, to cost \$4,000; projected. For Hon. R. C. Bell, pressed brick and cut stone residence, slate roof, 40 by 50 feet, to cost \$7,000; projected. For M. E. College. This building is to be extensively improved so as to make it first class in every respect; projected.

Grand Rapids, Mich.—From the various and best sources of information, as well as from indications plainly visible to all, in a few weeks the spring campaign of building will be fully inaugurated and will be a full continuation of last year's boom. These prospects are not premised upon mere guesswork, but are the results of careful inquiry among architects and builders, who unanimously pronounce the indications fully up to last year's outlook, with the building of more blocks a leading feature.

Architect S. J. Osgood: For E. F. Uhl, pressed brick dwelling, stone trimmings, to cost \$25,000; will be finished May; built by the day. For Mrs. Widdicombe, same as above, to cost \$21,000, with addition of a barn to cost \$3,000. For Geo. White, dwelling, brick, with stone trimmings, to cost \$14,000; well up and roof on. For Mr. S. A. Hart, brick veneered dwelling, to cost \$6,200; contract let, March 1, to F. C. Miller, contractor. For Henry Walsh, frame dwelling, to cost \$5,800; contract let last fall. Union Benevolent Association Building, brick, stone and iron trimmings, slate roof, to cost \$24,000; to be used as a hospital. State Industrial School for Girls at Adrian; was let last season and will be finished by June 1. This is the fifth college on the grounds costing \$24,000; James Donough, contractor. It will be of brick, stone trimmings, slate roof and iron cornice. For H. E. Noble, Lincoln, Neb., frame dwelling, to cost \$3,500. For A. E. Rides, Hastings, Mich., frame dwelling, to cost \$2,000. Baptist Church, Adrian, to cost \$10,000; contract not let. Block of three stores, three stories high, 85 by 85 feet, for Mr. Norris, to cost \$15,000, at Grand Rapids. Also block of two stores, three stories high, 50 by 70 feet, for Bemis Estate, to cost \$10,000. None of the contracts yet let in the last three buildings. For Mrs. Buckley, dwelling-house, to cost \$2,500. Congregational Church at Cadillac, Mich., to cost \$9,000. Holland Reform Church at Coopersville, Mich., to cost \$3,000. Dwelling-house for F. C. Miller, to cost \$2,500. Schoolhouse at Olivet, Mich., to cost \$4,000; contract not let. Catholic Church at Alpine, Mich., to cost \$10,000; brick, with stone trimmings; to be finished this season. With the mild weather the work of supplying material and excavating for basements will be begun in earnest, and before the end of the season Grand Rapids will have made another immense stride toward perfecting its outlines as one of the best built cities in the Northwest.

Green Bay, Wis.—State of building operations at this time is very backward, and the outlook for the season is not altogether favorable.

Architect J. McDonnell: Schoolhouse of six rooms, three on each floor; two stories and basement, latter stone; walls brick, roof iron, cornices, etc., galvanized iron, 50 by 60 feet, to cost \$8,500; plans completed. R. C. Congregation Church at Manistique, Mich., frame, stone basement, style Gothic, open timber roof, tower and spire 125 feet high; building 36 by 85 feet deep, to cost \$4,200; in course of erection.

Goshen, Ind.—The building interest is beginning to open out on a small scale, as reported by J. N. Jones, contractor and builder.

Nash, Knox & Hubble are putting in the foundation for a furniture shop, 56 by 146 feet, two stories, with a 56 by 50 feet one-story extension on north end for engine and drying rooms. The building will be of brick. Samuel Minnis is the contractor of the stonework. The bricklaying and carpenterwork not contracted. They will also put up a warehouse, 50 by 100, two stories high, the foundation walls of stone. The building will be a frame, lined with matched sheathing and encased with iron-clad siding. The roofing of both shop and warehouse will be tarred felt paper laid on in G. B. Cline's roof paint and fine sand. Two business rooms on Main street, for John Wurster and Mrs. Bartlemy, each 22 by 80 feet, two stories; Amos Schrock, contractor.

Indianapolis, Ind.—A fair amount of building is under way and in embryo; most all work contracted is taken at close figures. The action of the Insane Asylum commissioners in requiring bond double the amount of each bid to accompany the same, has kept a number from competing. No contracts are yet made.

Architect C. A. Wallingford: For Berkshire Life Insurance Company, stores, three stories, pressed brick, terra cotta and Lake Superior sandstone, 34 by 60 feet, to cost

\$10,000; projected; and a residence for same company, frame, two-story, cost \$4,000; Junglaus & Schumacher, contractors. For Electric Soap Manufacturing Company, brick and stone, three stories, 40 by 1,000 feet; to cost \$20,000; projected. All of this city. In Wabash, Ind., for Rev. C. A. Wesner, frame, to cost \$6,000; projected.

Jacksonville, Ill.—Architect Isaac C. Coleman reports: The outlook here is bad. The most that will be done here this season will be alterations and changes. State of Illinois Insane Hospital, 450 feet front, to cost \$135,000; Presbyterian Church, at Manchester, Ill., 26 by 48, to cost \$2,200; projected.

Jamestown, Dak.—Jamestown starts the year's proposed improvements with a \$40,000 hotel, an insane asylum, a college, to be built under auspices of the Presbyterian synod; a new brick schoolhouse, to cost \$14,000; an entire block of brick buildings, to cost \$100,000; and waterworks, costing \$40,000, for which the engineers are now making diagrams, taking elevations, etc.

Kansas City, Mo.—Prospects good and improving. Architect F. B. Hamilton: For E. W. Smith, two-story and attic dwelling, of brick with shingle roof, to cost nearly \$7,000; nearly finished. For R. M. Snyder, two-story and attic dwelling of brick, with slate roof, to cost \$7,500. For E. A. Walrusley, a two-story frame dwelling, shingle roof, to cost \$2,500. For Judge F. M. Black, a two-story and attic dwelling, brick, with slate roof, to cost \$10,000; foundation commenced. For Corle Cracker Co., four-story warehouse, brick, gravel roof, 20 by 142 feet, to cost \$7,000; projected. For F. W. Poor, four-story addition to Lindell Hotel, 40 by 100 feet, to cost \$20,000. For Chas. Campbell, four-story brick warehouse, 48 by 100 feet, to cost \$16,000; projected. For E. D. Fisher, four-story brick warehouse, 48 by 100 feet, to cost \$14,000.

Madison, Wis.—Proposals for building the new Dane County Courthouse were opened on the 27th ult., without result reached as yet. It is evident that any proposition to use red brick and terra cotta in the construction of the building will be voted down by the board. Several of the city members are decidedly opposed to brick and terra cotta, and it seemed that at least two-thirds of the members from the various towns were of the same opinion. They say give us solid walls of stone—no "gingerbread work." Granite and well selected stone appear to be the materials desired by the majority of the board in the construction of the exterior walls.

Milwaukee, Wis.—The building outlook seems to be very promising. We have orders for dwellings and store and some buildings in different parts of this state which will aggregate over \$200,000, to be built this season.

Architects H. C. Koch & Co., Dane county, Wis., two stories and basement, stores, basement brick and terra cotta, fire-proof, 113 by 77 feet, to cost \$150,000; will be let the latter part of this month. In this city, Franklin District School building, stone basement, brick superstructure; three stories, fourteen classrooms and an exhibition hall, 120 by 70 feet, to cost \$51,000; contracted. Also Central Police Station, stone foundation and brick, about thirty-four cells, iron floors, 53 by 120 feet, to cost \$34,000; to be let on the 25th of April. Mahaska County Courthouse (Oskaloosa City), two stories and basement, brick superstructure, stone trimmings, fire-proof, 75 by 106 feet, to cost \$85,000; being done by county by the day, by reason of failure of the contractors. R. C. Convent, at Belleville, Ill., two stories and basement brick building, 128 by 88 feet, to cost \$42,000; contract to be let this month. Little Sisters of the Poor, this city, chapel and west wing, stone and brick, three stories, 110 by 92 feet, to cost \$51,000. Addition to Sheboygan County Insane Asylum, two stories and basement, brick superstructure, to cost \$9,000; under contract. For H. H. Hackendall, this city, three-story, stone basement, brick superstructure, 24 by 70 feet, to cost \$9,000; not let. For Upmeyer estate, three-story and basement, brick, stone foundation, 22 by 68 feet, to cost \$7,000; not let. Public School, Watertown, Wis., two stories and basement, brick building, 80 by 85 feet, to cost \$18,000; contracted for. We have on hand eleven dwellings in this city to cost from \$3,000 to \$10,000 each; and several brick store buildings, aggregating about \$42,000; also two factory buildings, one costing about \$25,000, the other about \$12,000.

Architect Andrew Elleson. For J. C. Diederich, three-story brick building, 25 by 120 feet, to cost \$6,000. For M. C. Cape, one-and-a-half-story frame dwelling, 22 by 44 feet, to cost \$1,250. For M. C. Krause, two one-and-a-half-story frame dwellings, 21 by 46 feet, to cost \$2,200. For Capt. Von Sehlen, one-and-a-half-story frame, stone foundation, 26 by 42 feet, to cost \$2,650. For Mrs. C. Harmeyer, two-story frame, stone foundation, 22 by 50 feet, to cost \$3,700. For A. Gruettner, two-story brick-veneered dwelling, 31 by 50 feet, to cost \$3,000. For C. M. Lantry, two-story frame, stone foundation, 25 by 47 feet, to cost \$3,000. All the above buildings are under way. For C. Rostad, two-story brick-veneered store, 25 by 50 feet, to cost \$3,000. For C. Peterson, two-story frame, stone foundation, 27 by 53 feet, to cost \$3,000. For H. Lindsay, two-story, brick veneered, stone foundation, 28 by 50 feet, to cost \$4,000. For J. Koppmeyer, one-and-a-half-story frame, stone foundation, 20 by 50 feet, to cost \$1,600. The last four projected.

Public Buildings.—The house committee on public buildings and grounds agreed to recommend the erection of public buildings at Clarksburg, W. Va., to cost \$50,000; St. Joseph, Mo., \$75,000; San Antonio, Tex., \$100,000. Additional appropriations of \$75,000 for the public building at Ft. Wayne, Ind., and \$300,000 for the public building at Detroit, were also recommended.

Sioux City, Iowa.—The outlook is very good. In other offices here there are plans for considerable good building, a large wholesale house being one. A building for the postoffice is projected, but no proposals accepted.

Architect E. W. Loft: For Hon. Geo. D. Perkins, two-story and basement residence at Sioux Falls, stone, brick and terra cotta, 40 by 60 feet, to cost \$12,000; basement in. For W. E. & H. A. Johns, two houses, frame, with brick basement, 30 by 50 feet each, to cost \$3,200 each; under way. For D. T. Hedges, two stores, two stories and basement, brick and terra cotta, 50 by 50 feet, to cost \$6,000; under way. For Melvin Grigsley, Sioux Falls, two-story and basement residence, brick and terra cotta, 38 by 44 feet, to cost \$7,000; projected. Union Stock Yards, office and barns, to cost \$15,000; under way. National Homestead Monument for D. T. Mitchell, Sioux Falls, stone, marble and copper, 40 by 40 feet, and 180 feet high, to cost \$100,000; projected. For S.

P. Mikesell, Ponca, Neb., frame residence, two stories and basement, 30 by 55 feet, \$3,800; under way.

St. Louis, Mo.—The work of reconstruction of those buildings wholly or partially burned the night of the last week in December in the city has progressed very much. The buildings at the corner of Fourth and Elm, belonging to Mr. Chas. Hoyle, will be replaced as soon as settlements can be made with the insurance companies. There is some difficulty involving \$2,000 or \$3,000 which will be settled shortly. The companies have proposed to replace the building. J. M. Hutton, who owns the adjoining property, will rebuild and spend \$15,000 in that work. The Niedringhaus building will be commenced shortly. The cost of the structure will be about \$30,000. Little has been done toward clearing up at the site of the old St. Nicholas Hotel. The ground belongs to Mrs. Wilson and the Connecticut Mutual Life Insurance Company. One of the proprietors wishes to buy of the other, and reconstruction depends upon the consummation of the sale. If it is made satisfactorily, there will be a block of stores erected at a cost of about \$50,000. The Burrell-Comstock building, which has been described, will shortly begin to assume shape. The foundations are being laid. Maguire & Hartnett are preparing to rebuild the houses at Sixth and Walnut, destroyed the night of the Burrell-Comstock fire. They will spend a little over \$7,000. In addition to these a new hotel is being erected for Beers at Grand avenue and Olive street, to cost \$65,000. It will be five stories high, have a frontage of 60 feet and will be 150 feet deep. There are many blocks of houses being erected by speculators for renting.

Architect A. Druiding: Holy Trinity School, 40 by 50 feet, to cost \$10,000. Two stone front houses, to cost \$10,000; projected. St. Joseph's Church, Louisville, Ky., 64 by 150 feet, to cost \$45,000; commenced. St. Joseph's Church, Fort Jennings, O., 50 by 129 feet, to cost \$21,000; commenced. Convent of Sisters of the Poor, Fort Wayne, 45 by 150 feet, to cost \$40,000; commenced. Convent of Dominican Sisters, Racine, Wis., 100 by 39 feet, to cost \$10,000; commenced. School of Convent of Dominican Sisters, Racine, Wis., 45 by 120 feet, to cost \$12,000; projected. St. Stephen's Church, New Coeln, Milwaukee County, Wis., 45 by 110 feet, to cost \$11,000; commenced. St. Francis' School, Tonawanda, N. Y., 45 by 110 feet, to cost \$10,000; commenced. St. Bridget's Church, Cuba, Allegheny County, N. Y., 50 by 100 feet, to cost \$12,000. For all the above Mr. Druiding is the architect.

Architect Chas. K. Ramsey: Building is starting all over the city; number of permits issued for the last six months, 854 brick and 242 frame buildings, the estimated cost of which is \$3,555,123. For Wm. O. Gibson & Son, three-story brick building, store in first story and flats in second and third stories, composition roof, openings in front and trimmed with cut stone, 25 by 75 feet, to cost \$9,000.

St. Paul, Minn.—Prospects are exceedingly good. Architects Carpenter & Teltz inform us that the building season has fairly commenced and this season is marked as the beginning of a new era in building in that city. The single fronts dotting the principal streets which marked the prosperity of the city are being overshadowed by the long fronts of commercial blocks and buildings of magnitude occupying almost whole squares, and all of costly material designed by the most expert of her architects. Work is now beginning on the Mammoth Hotel, occupying a square facing Robert, Sixth and Seventh streets; directly opposite corner of Robert and Sixth streets the Chamber of Commerce building, six stories and basement; on another corner plans are preparing for another mammoth block. On the corner of the next street the Minnesota bank will put up a building quite excelling any bank here. The German-American bank, at present the largest structure of its kind, has resumed operations. The First National bank, the next in size, is finishing rapidly. The A. H. Wilder block, occupying a square from Jackson to Sibley streets, on Fourth, is to commence at once, contracts having been awarded. The St. Paul Improvement Co. have their building lot ready to commence, the contractors being engaged in estimating the cost. Besides these the Drake block is rebuilding rapidly, and many more buildings of minor importance have already commenced, and considering the number of plans extant for figures, the city is likely to have the most extensive building season ever realized in the city. Dwellings are in active demand and very hard to get, and while the commercial interests are spreading so, the large number of dwellings now building will not begin to keep pace with the future requirements. The new Capital bank, the designs of which have been completed by Carpenter & Teltz, have been adopted by the directors. The illustrations will follow in a future edition. This building will be perfectly fire-proof, everything excepting the doors and furniture to be of iron, stone and tiling; and the stipulations of the owners being that it shall be a fireproof vault and the handsomest design yet made in St. Paul, the architects having *carte blanche* to make it so. It is to be located on Jackson street, between the Merchants Hotel and Gillfillan block, and it will tower up above the highest building in the city a full story.

Topeka, Kan.—Outlook for building is good. Architect H. M. Hadley: Schoolhouse at Concordia, Kan., two stories and basement, built of stone and brick, shingle roof, 98 by 87 feet, to cost \$15,000; plans completed. For Wm. McBrown, residence at Fall River, frame, 35 by 62 feet, to cost \$3,500; plans not done. For S. Barnum, addition to residence, frame, 16 by 30 feet, to cost \$1,000; under way. For Capt. A. Hutchinson, frame addition to residence, 20 by 36 feet, to cost \$1,000. For Theo. S. Mason, frame residence, 25 by 50 feet, to cost \$2,000. All the three last at Topeka.

Winona, Minn.—Building outlook is very fair, and a good deal will be done as soon as good weather sets in.

Architects C. G. Maybury & Son: For Odd-Fellows, three stories, stone building, brick, stone and terra cotta, 40 by 80 feet, to cost \$12,500; under way. For E. A. Gerdzen, two-story ditto, 30 by 80 feet, to cost \$6,500; under way. Bohn Manufacturing Co., two-story brick office, 25 by 56 feet, to cost \$4,000; projected. For J. W. Lance, two-story brick residence, 30 by 50 feet, to cost \$2,500; under way. For W. W. Slocum, two frame residences, 24 by 40 feet, to cost \$1,500. Schoolhouse, La Crosse, Wis., two-story brick, to cost \$7,000. Store building at Albert Lea, Minn., two-story brick, to cost \$12,000. Bank building at Tracy, Minn., two-story brick, to cost \$4,000. Store building at Galesville, Wis., two-story brick, to cost \$6,000. Schoolhouse, Walnut Grove, Minn., two-story frame, to cost \$2,000. Residence at Eyota, Minn., two-story brick, to cost \$3,000; ditto at Huron, Dak., for F. E. Stearns, to cost \$2,500; ditto at Sibley, Ia., for F. F. Grant, to cost \$1,500.

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.

Elkhart, Ind., Jan. 14, 1884.

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 coal in the grate, are nicely warmed and most perfectly ventilated by that one grate.

Very truly yours,

F. A. BENHAM, M.D.

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