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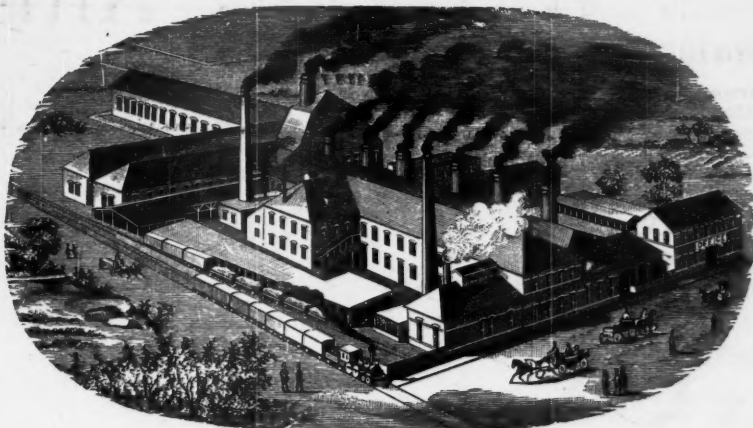


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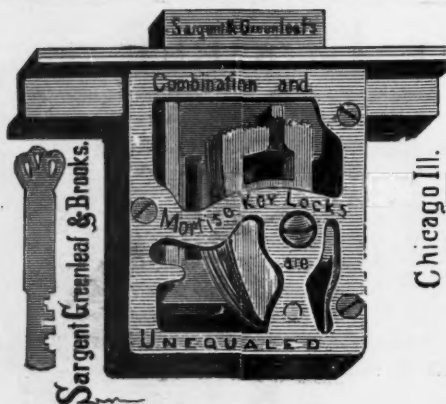
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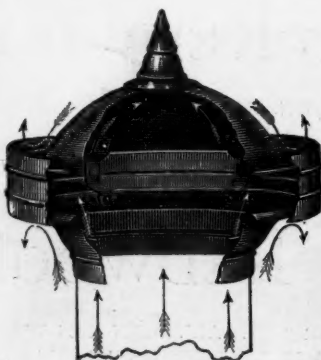
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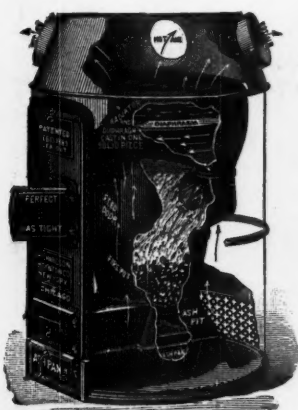
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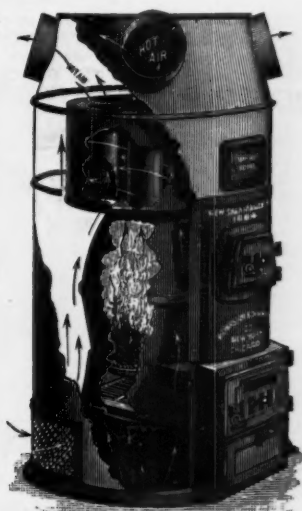
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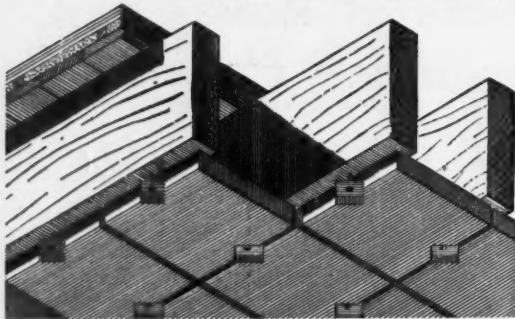
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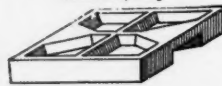
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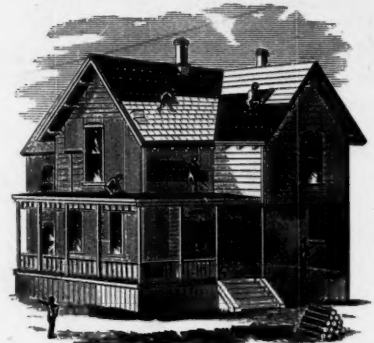
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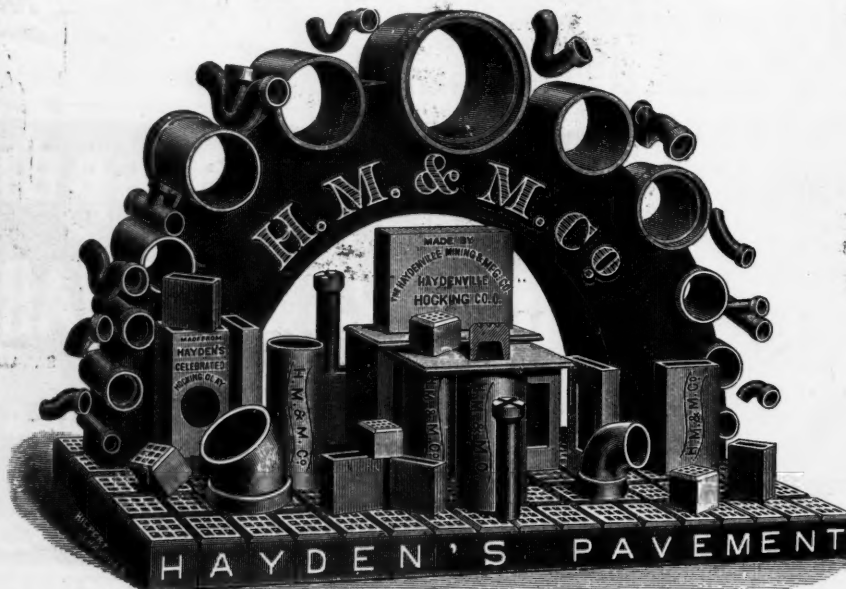
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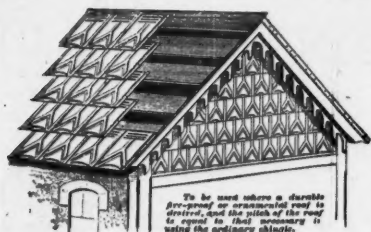
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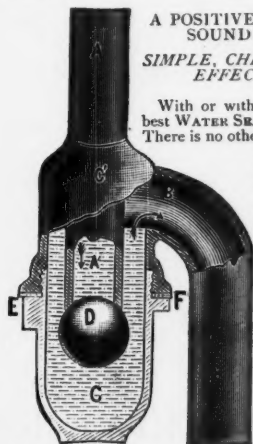
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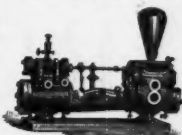
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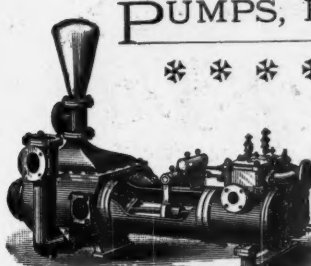
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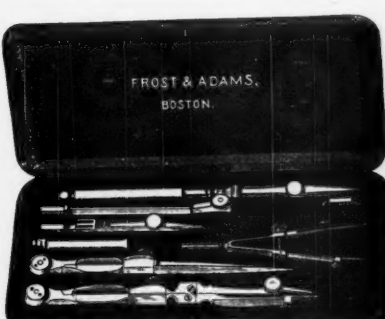
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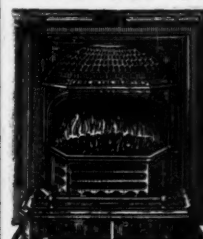
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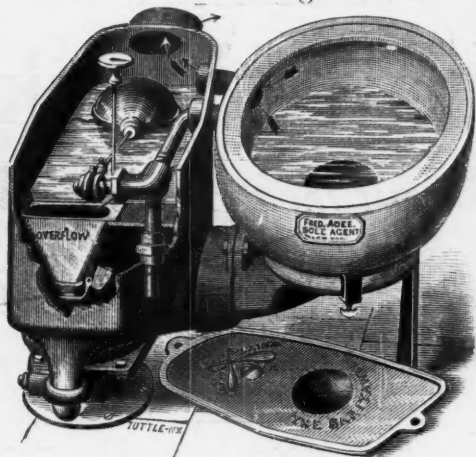


FIG. 1. STRAIGHT OUTLET.



FIG. 2. WITH OFFSET.

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These water closets are now made (and kept in stock by the undersigned) with a large (full 1 inch) water-way through ball-cock, expressly for use under pressure from cistern over head, say five to thirty feet above the closet, thereby securing a first-class flush from very low pressure.

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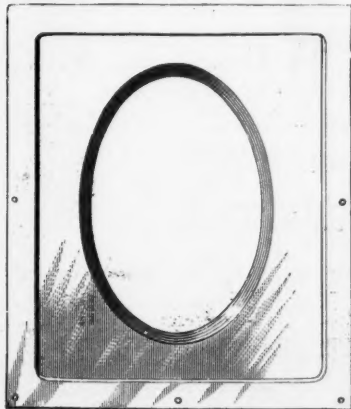
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THE INLAND ARCHITECT AND BUILDER.

Vol. V.

No. 2

MARCH, 1885.

THE INLAND ARCHITECT AND BUILDER

A Monthly Journal Devoted to

ARCHITECTURE,

Construction, Decoration and Furnishing

IN THE WEST.

OFFICIAL ORGAN OF THE WESTERN ASSOCIATION OF ARCHITECTS

(A NATIONAL ORGANIZATION.)

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L. MULLER, Jr., Manager.

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Important Miscellany.

SUBSCRIBERS whose subscriptions have expired should renew *promptly* to insure receiving this journal regularly.

The publishers will pay twenty-five cents per copy for issues of February, March and July, 1884.

Several inquiries have been received for first-class draughtsmen. Such may secure employment by sending their address and references to this office.

ONE of the first duties of the Forty-ninth Congress is to take up the three bills that were introduced in the last session of the Forty-eighth Congress, relating to the revision of the office of the supervising architect. Of the bills referred to, one was introduced by the Hon. S. M. Stockslager, of Indiana, and two by the Hon. J. H. Hopkins, of Pennsylvania. The first bill (H. R. 7523) was entitled "a bill defining the duties of the supervising architect and for other purposes," the second (H. R. 7550), "a bill to establish the office of government architect" and the third (H. R. 7549) for the same purpose, and to "provide for the construction, inspection, preservation, alterations and repairs of public buildings." One of the warmest supporters of these important measures is the architectural attaché of the British Legation at Washington, Architect J. L. Smithmeyer, A. A. I. A., whose published reports have done much to show the necessities of a change, and to report the progress made. As we have said before, in referring to these bills, they meet with our heartiest approval in a general sense, this course having been generally outlined and recommended by us at the time of the Hill investigation. We hope that the present congress will speedily forward the work already begun by the Hons. Stockslager and Hopkins, and that the house committee on public buildings and grounds will be active in its advancement and success.

ST. LOUIS is to have a convention of Missouri architects on the 27th instant, to form a state association under the rules of the Western Association. The following call has been issued:

St. Louis, March 2, 1885.

DEAR SIR,—Believing that the position and prospects of the architectural profession in this state will be greatly promoted by the union of all its worthy members in a state association, for mutual acquaintance, counsel and encouragement, the undersigned architects invite all their professional brethren in this state to meet them in convention, for this and other purposes, at the rooms of the St. Louis Institute of Architects, in the Public School Library Building, at 10 o'clock, A.M., on the 27th day of March, 1885.

The objects of this convention will be, primarily, to establish a permanent organization among the architects of this state, similar to those which have already been formed in the states of Iowa, Illinois and Minnesota, and also to take such other steps as may seem advisable to elevate the profession and practice of architecture in Missouri.

By thus organizing, the architects of this state may secure admission to the Western Association of Architects, recently formed in Chicago, and which, through the instrumentality of state associations, seeks to combine all members of the profession throughout the West in one united and powerful organization. As this body already embraces nearly twenty states and territories, and is the most active and influential association of architects in the United States, the great advantage of such membership must be at once apparent.

The architects of Missouri have a special incentive to early action, as proposed, from the fact that the next annual convention of the Western Association of Architects will be held in St. Louis, on the third Wednesday of November, 1885, at which time an attendance of several hundred architects may be looked for from every part of the great West, Northwest and Southwest.

Earnestly desiring the prompt and hearty coöperation of every member of the profession in this movement, we fraternally and cordially request you to be present on this occasion. A full representation is important; no one should be absent except from absolute necessity. It is not expected that the convention will last more than one or two days at the most.

Please fill out the blanks on the inclosed sheet, and mail to the chairman as early as possible. There will be a reception committee to receive strangers, and it is expected that reduced hotel rates can be had for those who will require such accommodation.

T. B. ANNAN,
GEO. I. BARNETT,
C. B. CLARK,
J. W. HERTHEL,
CHARLES F. MAY,CHARLES E. ILLSLEY,

JAMES McGRATH,
J. H. McNAMARA,
J. F. MITCHELL,ARTHUR L. SMITH,CHARLES K. RAMSEY, Chairman,

620 Chestnut Street, St. Louis.
President of the Western Association of Architects.

That a state with two such progressive cities as St. Louis and Kansas City, with many others only less in population, should see the necessity and make this movement toward association among those who are the authors of their growth is a matter for general congratulation. No state needs association among her architects more, and none have better material with which to make a flourishing and beneficial society. We earnestly hope that every architect in the state, not only those of the large cities, but every member of the profession, will be in St. Louis on the 27th and give his best support to this movement, that will unite the architects of another great state in a union of states, as the leading members of the profession are now united in a national body.

A SUIT that has attracted some attention among architects was recently brought by a prominent member of the profession of Minneapolis to collect charges for designs. The suit was decided against the plaintiff, as the evidence for the defendants before the court seemed to show that the architect had said before making the drawings that the cost of building would not exceed a certain sum, he making drawings upon that condition. The architect, who is a man of undoubted integrity, stated to the court substantially that he was asked to make plans by the defendant, and after the plaintiff had stated his price for the work of designing and superintending he was engaged. The defendant gave size of lot, stated the character of building he required, and said he would expend \$20,000, and an one-eighth scale sketch of plan was made at once. After the sketches in detail were finished, defendant saw them and was told distinctly by plaintiff that the building would cost more than the stated sum. The defendant then for the first time gave regular instructions as to arrangements, materials, details, etc., and was told that he was still adding to the cost, but defendant insisted it should be that way. During the preparation of drawings, defendant was continually present until bids had been received twice, reducing the cost from \$28,000 to \$22,500, the latter involving changes in material and the making of new specifications by the architect. At this time the defendant repudiated the

entire contract. The plaintiff stated that there was never, during the time of engagement or before, any proposition or suggestion made that he was to charge nothing for his work if the building cost more than \$20,000. The principal witness for the defendant seemed to be a builder, who stated that plaintiff had so stated to him. The plaintiff testified that he had never seen the witness to know him before meeting him in court. The moral of this architect's experience is that a written agreement should be made in all cases before a line is drawn, in which each item of the contract is clearly stated; for the general sense of the value of an architect's services is so low in the mind of the average business man that he will avoid payment for plans if he can, and where the business man is an unscrupulous one the architect's chances for securing full remuneration for his work is small. While we sympathize with the architect in this case, we hope his experience will be of value to others, that suits may be avoided where the result is apt to, as a friend of the plaintiff remarked in this case, "all depend on the hardest swearing."

ARCHITECTS who were inclined to think the dues established by the Architectural Association of Illinois too high, are, after mature thought, reconsidering the matter. The subject has been commented upon to some extent by the daily press. The *Inter Ocean* recently said:

It is not a wise act for any architect to withhold his name and assistance at this time, because on principle he may consider the dues excessive (the majority have decided they are not) for the less fortunate architects; for he must understand that these, and every architect, members or not, will feel the influence for good that such an organization will create. The prosperous architects of Chicago, who have come into this society, have no need of it for any particular financial gain to themselves. It is with a spirit of good-will and fraternal feeling, with a desire to make their profession everything that the name implies, that urges them on in the work they have undertaken, and every architect who has a pride in his profession should lend his support to this association.

The unanimous vote of the convention and the general comment indorsing the measure, should do much to convince the few who have thought otherwise, that in this, as in other attempts at progression, the West can accomplish what has proved an impossibility in other parts of the world; and the comment of such papers as the one quoted should do much to convince architects and the public, which they represent as well, of the value of the association.

APROMINENT Chicago lawyer, and a man of sterling worth as a member of his profession, and as a gentleman, recently showed how little an architect's services were appreciated, when, as a member of a church building committee, he objected paying for competitive plans. An architect, who had been asked to compete, and who refused upon this ground, thought to reason with the gentleman, and ask what he would think if he (the architect), having a case in court, should go to him and ask his opinion, stating at the same time his intention of asking the same of a dozen other prominent lawyers, and paying nothing for these opinions, but giving the "job" to the one who seemed to best suit the case. Architects will not be surprised to learn that the reply was, "Oh, that is not a parallel case." The difference in the parallel seems to be that the lawyer can give an opinion with little labor, and the architect has the labor of preparing plans, in addition to the value of his experience. Architects should lose no opportunity to impress the real standing and province of the profession upon business men.

HE who reads the future by that best of ways, the close observance of what has past, needs no other sign to tell him that cholera will, almost without a doubt, visit our country this summer. It was expected last year, but the advancement in general intelligence and the experience of the past retarded its advancement, and it only got as far as Paris. In expectation of its advent, many cities and towns prepared for it, and it was certainly because of the precautionary measures taken,

both here and abroad, that we escaped. But its widespread presence last year in Europe, with its almost certain visit here the coming summer, should stir the municipal authorities into action. Now, or as soon as the frost leaves the ground, is the time to do it. A little money spent in cleaning now will save many lives, when a large amount expended by-and-by would only stir up the contagion and sacrifice more lives. In regard to this, Dr. Rauch, of the Illinois State Board of Health, in a circular letter, says:

It is important that this work be begun as soon as the weather will permit; and it is especially desirable that certain details be attended to at the earliest practicable moment. For example, the emptying, disinfecting, filling with clean earth, or other necessary treatment of vaults should be completed before warm weather comes to interfere with such work, or before the appearance of a case of cholera makes it dangerous to attempt it. To this end, wherever the conditions make such action necessary, a proclamation or health notice should be issued directing the immediate prosecution of such work. See Sec. 2, Art. 6, of the Model Sanitary Ordinance, page 13 of the "Public Health Laws and Sanitary Memoranda." Where no health organization is in existence, the present emergency furnishes a favorable opportunity for securing the adoption of this ordinance.

It is important that citizens, especially those holding municipal offices, should read the entire circular carefully, and carry out its provisions and recommendations to the letter. Let no thought of delay influence against immediate action, for cholera is a definite dread and certain evil that can only be fought by perfect cleanliness.

AFTER reading an "impartial" report to the board of supervisors, upon the new court house scheme of Pottawattamie county, Iowa, written by a member of a firm that a year ago prepared plans, and has now received the sought-for appointment, to build (when the appropriation is made) upon these same plans submitted in the "competition" we mentioned last month, and the contrary evidence of a competent resident architect, we are inclined to have considerable sympathy for the people of that county. Without going into the details of this case, that concerns us only as it reflects upon the reputable architects, we would be glad to see the State Architectural Association of Iowa prepare a bill and present it at the next legislature, calling for the appointment of a state architect, who shall be appointed by the governor or state council, or by vote at a state election. This, properly arranged, would take the construction of public buildings out of the hands of local cliques, in the shape of county boards, and would give to the public what they pay for, and what they have a right to expect, a building honestly constructed, and of creditable design.

CLOSE upon the organization of architectural societies now general throughout the West, comes the movement toward association by draughtsmen. Last month we made record of the formation of the Sketch Club, of Des Moines, and now the leading draughtsmen in Chicago offices have met, preparatory to an organization here. Though the final steps have not been taken, enough has been done to show that it will be a gathering of architectural draughtsmen, though not exclusively so, and will be for instruction and recreation, the procedure modeled after the best features of other existing societies in this and other countries. It will consist of two bodies, the senior and junior members, and one of the best features urged is that a sketch be presented by each applicant for admission, as part of his initiation fee. An excellent idea in this relation, is the suggestion made by members of the State Architectural Association, that the engineers, architects and draughtsmen's associations combine, and secure rooms together, the similarity of pursuits making such a union extremely advisable.

ADIVERSITY of opinion exists in regard to the origin of the fire which recently destroyed the Grannis office building in Chicago. Of those who saw it first, some think it was occasioned by friction in the elevator weight shaft, others

that it was started by an electric light plant situated in the basement of the building. Each theory seems to us, from the evidence produced, wholly improbable. A more probable cause, and one that is so simple as to escape general notice, is the spontaneous combustion of cotton waste. What is more likely than that the elevator boy, after wiping the gearing, carelessly "chucked" his waste into a corner, or among the roof timbers, and the natural result followed. There is fortunately no division of opinion upon the advisability of fire-proofing such structures, as the owners now see that a sum not exceeding \$20,000 would have thoroughly fireproofed this splendid building, that cost upward of \$200,000.

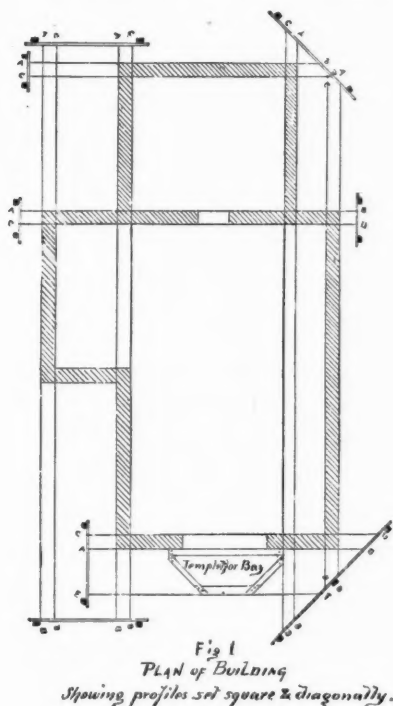
Hints on Building.

BY J. H. CARPENTER, A. & C. E.

PLANNING AND LAYING OUT BUILDINGS.

AFTER all proper preparation for building has been completed and contracts drawn up, both owner and architect become anxious about the proper starting of works, and the laying out of the building properly on its site is of such importance as to demand the most careful attention. Too often is this part of the work done in a slipshod unworkmanlike manner, resulting in the superstructure overlapping its foundations openings getting out of place, piers off their centers, and the rooms being thrown out of square. This evil will effect all the trades working in finishing and decorating them, who will each in turn have to do extra work in jointing, laying out and fitting their work. To start properly then becomes a duty we owe to others as well as ourselves.

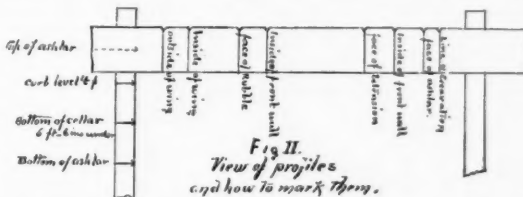
First of all, the architect should provide a diagram of the plot, showing



the position of the building, with the distances from corner stakes, or street lines, etc., the plan of building in outline, with its principal rectangular form marked distinctly from the rest, and from these lines mark the distances for offsets, piers, etc. Also draw a section of the basement walls, and on this mark the depths below grade line where footings are to be leveled, cellar bottoms, piers, etc., and above grade line the lengths of ashlar or brickwork water tables, etc. Also show where sewer connections are to be made, and any other points of interest. The architect, builder and owner, with a good engineer, should now proceed to stake out the works, from the established limits of the property, and after setting the stakes for the true corners, proceed to put in extra stakes, which will serve to set the corners again after the originals have been dug up by the excavator. Another and better way is to provide profiles of studding and plank—sometimes called batter-boards or benches, either setting one diagonally across the corners staked out, or by setting two at each corner, one of which is set parallel with each side as shown in Fig. 1; that the lines drawn across the plot, between the profiles, will intersect at the true angles for the building.

The lines *AB* marking the outside of the main walls or rectangle of building, the lines *CD* the inside faces of those walls for convenient use, and the lines *EF* for offsets of bays, wings, buttresses or battering lines of wall faces, etc. After placing all lines necessary for use, notch and mark the cross-board plainly what each line is for. It is necessary to make the posts high enough, so that the grade line and levels of rubble work, brickwork, ashlar facings, water tables, depths of trenches and cellar may be marked on them, and by marking one post at each principal corner, the excavator will readily level the trenches, cellar bottoms, and fill in to grades, and the mason will be most likely to have his walls of proper height, and leveled ready for the superstructure. When setting posts for profiles, be careful to set them firmly to a good depth, and wedged with stone, so they will resist an ordinary blow, and not bend when the lines are drawn.

It sometimes happens that buildings are to have annexes, and these should be treated in the same way as the main building, and the sides



tested for their parallel with it, or its proper angle from it, if placed angle-wise. Some attempt to lay extra stakes to define the outline of octagon and circular bays, towers and transepts, but they are apt to confuse the workmen, and the writer has found it best to construct a templet, or form, of strips well nailed together, which can be used in turn by the excavator, mason and carpenter to complete the part, it serving also as a framing plan for studding, frames, etc., and a ready board to define miters and intersections of moldings on, for the joiner's use.

EXCAVATING.

After profiles are fixed, and before doing anything else, it is proper and necessary to determine roadways and plan out a method of operation, that no time may be lost or labor wasted by heaping material where it will have to be moved again. It is usual for many excavators to pile up all the earth just outside of the building lines, where it happens to drop from the shovel, as if the earth were to be used around the walls. If this is so, it is best to level it off at once. If any is to be used in filling hollows or forming terraces, the contractors and owner will be largely benefitted by wheeling it to the place it belongs, as it will become packed, wherever put; it is a benefit then to have it pack just where it belongs, or if the leveling operations must be postponed, it will be the best thing for all concerned that it be systematically put in heaps in out of the way places, leaving convenient spaces for building material and the men to work.

Another thing to determine is surface drainage, if it becomes necessary from the nature of the grounds, and also to provide for the drainage of rainwater, that the cellar may be kept dry for the workmen. If there are sewers to connect with, the connections should be made at once. If there are no sewers or other way of drainage, it will be best to dig a proper cesspool of sufficient depth to reach gravel bottom and lead a drain to it. It may be found necessary to have more adequate drainage while building, the cesspool not being sufficient while the cellar is open, and if so, the hole for the water cistern or some temporary well will relieve the difficulty.

These matters provided for, the best system of working to advantage would be, if the sod, loam, etc., is to be used again, to cut the sod in strips, roll it, stack it and cover it; heap the top soil in a convenient place and the loam and the rest may be used at once, except if good gravel be reached, it should be piled for use in forming roads, beds or walks, or if building sand be obtained, that it be put where it can be kept clean from mixture with clay, then screened and used for mortar.

If the earth is to be carted any distance, the carts must be timed so that they can follow each other conveniently, and the work pushed to the best advantage.

The cost of excavating depends upon the foresight, energy and management of the superintendent. The following data will enable anyone to approximate the cost of excavating, these estimates of labor being based upon actual experience in building operations, all proper allowances being made for straightening the banks, cutting out for offsets or wings and leveling the bottoms.

One man can shovel out ten yards of sand or loam per day, that does not require picking. If the earth requires loosening, one man can pick for two men to shovel, and they together can throw out twenty yards of earth per day. If the soil is of clay and not very hard, it will require one man to pick for every shoveler for each ten yards; harder clay, or a mixture of

stone, necessitates more help to do the same amount of work in proportion to its hardness. If the earth is to be carted away it requires one cart to each shoveler, for every thousand feet of hauling. If the earth is to be removed by wheelbarrows, it requires one wheelbarrow to each shoveler for every seventy-five feet of good run on plank. In fairly regulated work the men are actually engaged shoveling only two-thirds of the time, and the difference in rest makes up for the lost time. Rough work in embankments will amount to three times as much.

The depth of excavations must always be sufficient to insure against the action of frost, which usually penetrates from four to six feet; therefore, it is not safe to build less than four feet deep. Greater depths will be required if clay or rock should be found to be just under the level determined, as the action of water on clay or rock will undermine the soft strata over it, and cause cracking of the walls, and to make all safe it is best to go down to solid bottom at once. Greater depths than this must be determined by the requirements of basements, cellars and the nature of the soils built upon. For residences, etc., it is not wise to build deeper than just necessary to secure good bottoms, for sanitary reasons, for if there is not a good, perfect sub-drainage of about three feet below cellar bottom, the house will be damp and unhealthy. These facts should govern us as to the least depth to go, while if greater depths for security of the structure must be built, it is best to build on piers arched over that sub-drainage, or flow of water may not be impeded by the long line of walls.

Though we may approximate the depth of excavations which in our judgment may be best, the ground when excavated is quite as likely to be just what we did not fully expect, and after basements are dug to the bottom levels given, it is a necessary precaution to make several borings to ascertain the nature of the sub-strata, and, from the information gleaned, determine depths necessary for the safety of the structure.

If proper soil has been found to build upon, a good ramming with an iron weight will considerably harden the earth and settle it more than a great many tons of stonework quietly built into place.

The nature of soil is readily determined for the surface parts by the surroundings, but before building it is often necessary to revise the plans for footings to thoroughly equalize the weights on the kinds of soil found; we say kinds, for often several kinds will be found in one excavation. And from the nature of the soil we must determine precautions necessary to secure a healthy house.

It must be remembered though a dry soil is better than a damp soil, yet dry soil is porous, and gases will travel under ground and be quite as dangerous if not more so than dampness. It is necessary, while the ground is open, to review all possible dangers and provide for them.

All kinds of earth are compressible, to a greater or less degree, which variation is caused by moisture being present, and if dry its value varies according to its density. Settlement is sure to follow building and continues for sometime after the building is up. Our main object must be to secure equal settlement, and provide against it as far as possible. The value of soil is only approximated, as its bearing capacity has not been tried by any system of experiments which can be adopted as standard rules, and our experience must be our teacher, but we find it is usual to load soil from one ton to four tons per square foot, and caution must be used in determining just what weight to use where the different soils are found. Should soil be found to be too soft to insure good bearing, at least one ton per square foot, cradling or piling must be resorted to, or a strata of sand may be dumped into broad trenches, which will make a wet, marshy soil quite firm enough to build in with broad footings. Loam may be considered firm enough for that much of a load, and if mixed with sand, or mixed with clay, will be found to bear two tons per square foot.

If of good clay, the weight may be increased to two and a half tons per square foot; if mixed with small stone, then three tons per square foot. Good gravel beds will carry as high as four tons safely; until hard pan is obtained the load may be more; but here our borings must determine the values, for as the sub-strata may be too treacherous to deal with in safety.

The size of excavations should be at least one foot more each way than the building, that the workmen may have ample space to work, set and bond his stone, mortar up the joints, put on watertight coatings, etc. Masons will build a wall cheaper if allowed to rest them against the bank; but it is an unsafe way to build, as the outside of the wall has the most of the weight to carry, and if this precaution is not taken, we will be sure to have unpleasant bulging of the walls into the cellar.

NEW members as follows have been admitted to the Builders' and Traders' Exchange during the month past: Kelley, Rathbone & Co., Fuller & Warren Co., Price & Kauffman, Thomas Wilson & Co., Adams & Trowbridge, Cheltenham Stone and Gravel Company, J. H. Rice & Co., the Granolithic Company, Portland Cement and Paving Company, George F. Kimball, H. Burrell & Co., Soper Lumber Company, P. Kempe & Co., John Boland.

What an Architectural Association Should Be.

REMARKS MADE BY ARCHITECT D. H. BURNHAM BEFORE THE
STATE ASSOCIATION OF ILLINOIS ARCHITECTS.*

IT may be unnecessary to warn you that the vital essence of our life, as an association, is involved in the decision you will probably reach today. If the required two-thirds vote shall change the by-laws which now place the initiation fee at ten dollars, and the annual dues at twenty-five, the result will make the functions of this organization inoperative, and you cannot, therefore, do active, aggressive work, or say what should be done and enforce it; but simply what ought to be done, and then let the matter rest, paying no attention to the carrying out of the regulations adopted.

Two plans are offered; one by the gentlemen who would confine us to a meager annual income. This idea is modeled on the formalisms of eastern and European life, where it may be a fitting expression of the profession; but the other looks not so much backward for guidance as it aims to keep up with new experiences about us.

I hope gentlemen on the other side will make every point they can in this discussion, so as to leave no doubt when it comes to the final vote, for by their scheme we will have no practical work to do, yet must raise not less than seven hundred dollars a year.

The second plan will require ample means, of course, as the work before it is radical, thorough and comprehensive. It should not fail for lack of a thousand dollars or two, if it be undertaken at all.

No one can seriously think that it is intended to turn this organization into a club, nor is any one here weak enough to let his mind be clouded through such a characterization of the movement, which is intended simply to make it unpopular by leading you to look upon it as something exceedingly exclusive, and, perhaps, a little aristocratic. But if doing all in our power to make each member enjoy himself, when attending our meetings, lays our design open to be so called, I, for one, shall not object to the name, as I believe in making men happy; for if each heart constantly leads its master to come among us, gentlemen, we may rest assured of victory in the wars we are about to wage. Members from out of town cannot be expected to attend all, or perhaps many of our meetings. The city men will largely make up the sessions, and do nearly all the work. To pass stringent measures, therefore, for the single purpose of swelling our ranks, will benefit us only in so much as they do not impede the legitimate working of the majority. I would rather have lesser fees and dues from the members in the state than to see the work of the organization paralyzed, simply to bring them all in.

The scheme I shall propose is fairly comprehensive; but should a lesser one be determined upon; that is to say, if our field of action is to be confined to a couple of meetings during the year, then the purpose gentlemen have expressed of making everything bend to mere numbers, is perfectly proper.

Our different ideas may be stated about as follows: Quantity without coherence. Quality filled with vital energy.

The meager form may, as I said, have been best for European or eastern parts of our own country, but in the West—in Illinois—in Chicago—there must be breadth and scope for action. I hope you will not shrink from a cause merely on account of its newness, for when compared with the past and the ground over which the past has traveled up to us, everything about us is new, as we ourselves are new. In times gone by, men have been proud of their ancient lineage; but let us rejoice that we are of the latest blood, and that the fresh, the untried, the untrammelled is our legitimate province. Our duty lies in teaching men how to cut away those chains of former habit which have bound them by mere prejudices.

Now, gentlemen, in order to decide the amount of money we shall need, we must lay out the task before us.

Three phases of work occur to me as those you will probably take up: 1. The Practical One. 2. The Artistic One. 3. The Protection of our Rights.

If we are to command efficiency, it will be necessary, as the Delphic Oracle told Xenophon, "to pray to those gods to whom it is proper to pray." In our case they consist of those men who know something about us and our work, and are capable of judging both from experience, namely, ourselves, our contractors, and our clients.

As to ourselves. Every man here would gladly learn all he honorably can from his fellows. Can he do this by looking back to his own experience? Or, on the contrary, must he not be glad of every opportunity of meeting his professional brethren? Will it avail him to see them once or twice a year, or ought he not to join them at least every month, and always

* Mr. Burnham's remarks were in support of Art. V of the association by-laws. The original by-law and subsequent amendment was as follows:

All active members of the association shall pay an initiation fee of \$10, and annual dues of \$25. Dues to be payable quarterly, and prior to each regular quarterly meeting; and no person shall be entitled to vote at any meeting whose dues remain unpaid.

[This by-law was changed at the meeting of February 7, to read: All active members shall pay an initiation fee of \$10. All in Cook County, annual dues of \$25; all others, \$5. All members entering before next annual meeting shall be admitted without initiation.]

in a spirit which will insure open, frank discourse? We cannot meet in the street, in the parlor of a hotel or in a borrowed room whose surroundings, though proper to other organizations, have little in common with our modes of life. Ought we not, therefore, to have headquarters of our own?

It has been stated that architects tend to grow narrow. It may be true when they look to their own experience for guidance. But those who are wise enough to listen to the contractors' mode of conducting business, constantly gain new views, if they will. No doubt every man recognizes this; and while he knows that a single contractor will not be frank to the particular architect himself, he is aware that the same man would talk freely to an impersonal body of architects. You, whose hairs are growing gray in our profession, surely know that you have become good business men in the degree you have listened to the counsel of the honest contractors about you. Now if the builders are to come to us, it will require many meetings to do effective work with them. This of itself should be enough to demand the hiring and furnishing of homelike headquarters.

There is another class besides ourselves and the contractors from whom we can obtain help to improve our relationship with the public, namely, our clients. Some of them go from architect to architect seeking perfection, and finding it not; but discovering, no doubt, certain general traits of weakness common to us all, which latter are the very things we wish to find out and have corrected. Do you not see the necessity of asking these men in to talk with us? Do you not want them to show us ourselves as others see us? But if they visit us, it will be unbecoming not to receive them in our own quarters, and give them some entertainment in return for the courtesy they do us.

It seems then, in order to be thorough, we shall require a room or rooms at any rate; but besides the work suggested, there is still much left to do for improvement in the practical part alone. For instance, the consultations with skillful mechanics in each trade on the merits of various appliances, materials, and kinds of workmanship, in which discussions the mechanics should take the lead, and we should be the questioners.

This method is of great value, and one learns by it more easily than in reading books, to say nothing of the fact, that men generally will not read, but as generally are interested in oral discussions.

I am not so clear in regard to artistic development, except as to the value of meetings and discussions for this purpose. This much, however, I see, that no one will listen to lectures, as such, on architecture, or will care to deliver them himself, still every man is anxious to find new, fresh, living ideas, and whoever can present them may be sure of an audience in us at any time.

Perhaps you deem it improbable that anything new will be discovered in architecture? Surely there will be constant change and growth, for the new does steadily succeed the old, and is doing so now in architecture, as in everything else beneath the Creator's hand.

To constantly differ from the past is the eternal law of life; and where should it manifest itself more readily than in Chicago, for here the mind of the whole people is ripe for change.

The work for us to do is broad, fresh and of the deepest interest. The thread lies in our hands, which may lead us out of the labyrinth of uncertainty.

Perhaps some one of us has a theory of modern carving—what it should be, how it should be studied and applied to the various forms of architectural decoration. Well, let him speak. Another may have new views on the artistic value of entrances. Another is bubbling over about how we ought to cut the faces of stone to suit our climate. If you will see these men you may discover something of value, because they shall tell you not who Palladio was, but what modern beauty should be here in Chicago. They shall speak before you, and you shall question them and suggest to them, and perhaps even smile or laugh at them, while they shall give back their quick, clear answers or retorts, keeping their good nature, and keeping up their end.

Is this practicable? Was it ever done? Yes, at Athens and Cluny. You know the results too well for me to mention them. But those places did not exhaust the infinite combinations of the Creation. There will be a crumb or two left for us. Let us then get at the search. The time may not have arrived for us to lay unexecuted designs before each other, but it surely will come, and the value of it to the designer or the owner of the building will be great beyond question. If we learn to have confidence in each other about other things, we may soon be ready to take this important step. Suppose it should now be resolved to do it, and to carry it out in good faith, do you not think in a single year people would recognize a fresh spirit in all our buildings? That something of the sort may be done, I think you all feel; that it will be done here rather than elsewhere, I believe; that it will be done through this association, I hope; but that it must be done sometime, in order to sustain our advancing reputation, I absolutely know.

But what help we can render each other in matters of artistic training, experience must show, and until we actually commence to meet we can but little guess what form our work will take in this direction. In regard to the protection of our legal rights, however, there need be no doubt about the proper methods of procedure. We shall need to review our chief difficulties before arriving at the legal cures which will be required. There will be points that the association may deem it wise to let alone, but some will call for decided action either on our part or that of the government. We shall be obliged to procure the passage of necessary laws; but to draft a single valuable statute will require the services of a good lawyer, as will the passage of it by the legislature. All this will involve large expense which this body must meet.

But suppose you go into effective work for this purpose, the sums then to be raised will be greater at first, though possibly little or nothing in a few years.

I read the following suggestion from the *American Architect*, of January 17, to show how the French architects are meeting this problem. After speaking of one or two flagrant cases of abuse of architects, the article goes on to say: "As a protection against the devices of these churls, we believe that such an association as the French Caisse de Defense Mutuelle offers a very great advantage. One of the first duties, for instance, to which the officers of this society have applied themselves is the collection, under the guidance of two eminent lawyers, of records of all adjudicated cases relating to matters of building or professional service. This collection is to be indexed, and reports of new cases added as soon as they appear, so that the member who feels himself in doubt as to his rights has only to consult the officers of his society to be informed, both as to the propriety of his claims and the best method of enforcing them; and if he is compelled to attempt the latter, the society will undertake the case for him, paying all the court costs and council fees, and carry it through to a verdict, handing over to him the amount collected, less a certain small reserve to be added to his own funds. The improvement which such an association is capable of making in the business prospects of architects, particularly the younger ones, can hardly be realized, except by those who have the trials and disappointments of their early practice fresh in their memory. Apart from the management of suits, which need not be frequent, the fact, that every young architect of good professional standing, was backed by an association with ample funds, ready at a word to undertake the enforcement of his rights without any sentimentality or bashfulness, would secure for all the respectable members of the profession a considerate treatment, and an appreciation of the fact, that their services must be paid for, which even the best of them do not now find universal."

But suppose, instead of what I have suggested, you manfully determine to make this movement what it ought to be—that is to say, a success from the start—and begin the formation of a library, a thing that will outlast our best endeavors, be they what they may. If, as one of the older architects has said, twenty-five or thirty thousand dollars can soon be raised for this purpose, why should we not be at the work? If we take it up the entire state will show a deep interest in this organization, as it does in everything bearing the distinctive mark of our western life.

I would like to see the Association in pleasant rooms, where members of any architectural organization in the world might be received. I would like to have one of our members appointed for each day in the year, who should then hold himself in readiness to go at a minute's notice, on call of the secretary, to entertain whatever guest might call at headquarters while he is on duty. Thus we could insure meeting many bright men from other lands and states, and so add to our chances for improvement.

But, after all, I acknowledge that my scheme is likely to be a failure, as will any other, unless the meetings are held at the proper time of day. The most promising programme will not always insure full houses, and without the latter this enterprise is going to languish and die.

If the meetings are at night we know from the start that we will not attend. Just analyze your own habits, and you will think as I do about it. You go home tired at the end of the week. You get your supper or dinner, as the case may be, and are far from the business center. The journey down town and back is long and unpleasant. You want the evening to yourself. You feel indolent, relaxed and entirely indisposed to bestir yourself. Your wife don't like it, and wants to know if you really must go. Then your moral courage is called on for a heavy drain, which causes you to dally for a while and you do not go.

Now, suppose you are due here once a month at 2 P.M. Your mind is comparatively free, your work is over, Sunday is before you, and you feel Saturday afternoonish any way. Each inclination tends toward chatting with your friends and a pleasant time. All the men you wish to meet are down town. It is easy to get among them. You know you will be through at the usual time of closing business. You like the prospect, and in two minutes you are here with a clean-cut determination to have a good time, which state of mind always insures the obtaining of its object.

European Sketches.

BY IRVING K. FOND.

PART III—HOUSES AND STREETS OF SPANISH CITIES.

THE old type of dwelling house seems to be disappearing from the Spanish cities, at least it is not being perpetuated in the newer portions. Paris now sets the fashion for building in Spain, as she does, indeed, over nearly the entire continent. We look in vain through the open doorway, on the new streets, for a glimpse of the smiling court beyond the pretty vestibule. We see neither court nor vestibule. The beautifully wrought iron gates give place to heavy, wooden doors, and instead of the little balcony, from which the bewitchingly black-eyed maid could scan the visitor, and determine as to his intentions before admitting him to the court, we find a sort of sentry box, in which the janitor's ugly wife sits and works on socks or other fancy articles. The staircase hall is entered directly from the street. There is no necessity for a description of the arrangement of these new houses, which are poorly planned, according to our ideas, so we will pay attention to a few features these houses have in common with the old, more particularly with kitchen and the balcony.

The balcony is often decidedly attractive. Aside from the high, artistic merit of much of the wrought-iron work, there are generally decorations of a floral, and again of an animal nature, which render the Spanish balcony a fascinating subject for study. The artist is not the only person whose eyes and thoughts are drawn to the balcony and its accessories. Priest and bull-fighter, prince and peasant, each finds something to his taste, something to admire in the Spanish balcony. It is with sorrow that we turn from contemplation of this subject to the inspection of a less agreeable one—the domain of the cook, a low, dark room, generally a story below the dining-room, and communicating with it by means of a narrow spiral staircase. As far from the window as possible is the stove, a brick affair, containing a cavity for the fire. Opening into this cavity from above are two or three holes, over which the cooking is done. The oven is a portable tin box, placed on the stove only when in use. Above all this is a hood, probably suspended there to keep the soot and smoke from the ceiling. There is no flue connecting with this hood; there is no flue connecting with the stove; there is no flue connecting with the kitchen. Charcoal is the common fuel, and to keep the fire going, the cook continually plies the fan. "They say" every Spanish girl is born with a fan in her hand, so the cook, as well as the ladies, handles her weapon with infinite grace. Were it not for the stove she might be deprived of this, her natural right. When the smoke has crowded all it possibly can of itself into the hood, so much of what remains as can find its way across the dark room, escapes at the window. When the soot gets tired of clinging to the hood, it falls back into the cooking food. Unsuccessful attempts have been made to introduce improved ranges and cook stoves into Spanish kitchens, but the cooks revolt, as they see that through this innovation they would lose all proficiency with the fan.

While on the subject of the kitchen, we may speak of the laundry as well, these two being more or less intimate neighbors in our own country, but in Spain they have not a speaking acquaintance, as the distance between them is generally too great. Soiled clothes are taken to the river, or, if that is not handy, to the gutter. Indeed, the river is handy in some cases where its proffered services are not accepted. After a more or less thorough saturation, the goods are spread out on the grass to dry. This is possibly the best reason for calling this resort the "lawn" dry. The plumbing arrangement is simple—an open sewer—so the most thorough ventilation possible is secured.

Often, when the picturesqueness of the town or of the surrounding country offers an attraction, a portion of the dwelling is carried up one or two stories above the main roof, in the form of a square tower. This is covered by a roof, supported on at least two sides by posts, and on the other side or sides by a blank wall. Up in this elevated space flowering

shrubs and potted plants grow luxuriantly, while reckless running vines climb over the rail and down the wall, forming graceful festoons and clusters, in their attempt to regain the lofty starting point.

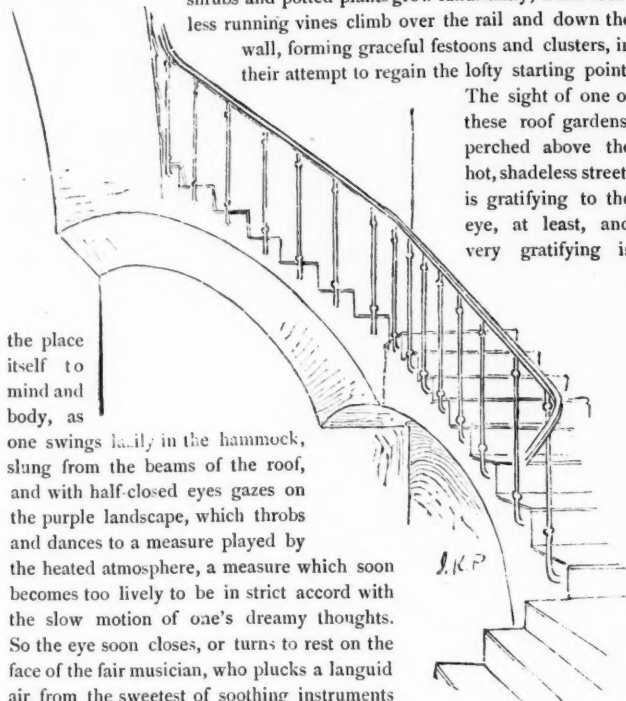
The sight of one of these roof gardens, perched above the hot, shadeless street, is gratifying to the eye, at least, and very gratifying is

the place itself to mind and body, as

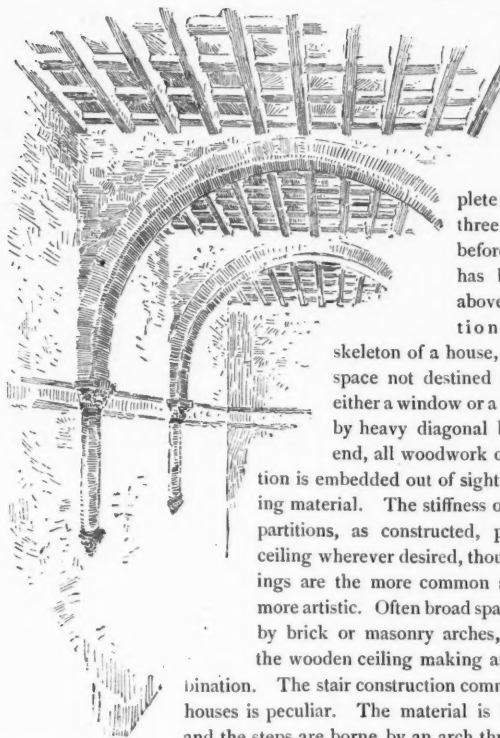
one swings lazily in the hammock, slung from the beams of the roof, and with half-closed eyes gazes on the purple landscape, which throbs and dances to a measure played by the heated atmosphere, a measure which soon becomes too lively to be in strict accord with the slow motion of one's dreamy thoughts. So the eye soon closes, or turns to rest on the face of the fair musician, who plucks a languid air from the sweetest of soothing instruments—the Spanish guitar. This air is certainly a more harmonious accompaniment to the silent, dreamy song.

The southern Spaniards have a happy custom of decorating the window ledges, and the low parapet wall about the roof, with potted plants, which give life and color to the otherwise very uninteresting whitewashed wall of the houses. The northern Spaniards have another custom, not so happy—that of decorating the blank sides of their buildings with painted landscapes, with impossible perspective, flat trees and never-flowing fountains. The artists probably avoided extreme realism, so that no stranger should be injured in an attempt to enter one of these ideal parks through a wall of solid masonry. This custom has a parallel in Northern Italy, where often the entire side of a building is covered with a painted architectural composition, with all the accessories of life, painted flowers on painted balconies, painted men and painted women (the artist had no lack of models), making painted love or reading painted books behind painted windows. Sometimes the imitation of architectural features is so well done as to be quite deceptive, but a painted woman can be told a mile away. Having noticed these features of plan and decoration, let us turn our attention to a few points of the construction of the houses, old and new. There is a tendency, from the very first days of Spanish building, to treat the wall, not as a homogeneous mass of masonry or brickwork, but rather as a frame piled in, as to its spaces, with some earthy material, such as mud,

clay or brick. The reason for this treatment is probably found in the frequent occurrence of severe shocks of earthquake, which would easily demolish a tall, light wall, laid up in the ordinary manner, so that to have required lightness and stiffness, framing was resorted to. Walls around inclosures, and the walls of low, one-storied huts, are constructed on the same principle, probably, in these cases, to avoid the use of too much expensive building material, for the "frame" is of brickwork, while the filling in was done with a soft mud, which the sun baked in place, forming a substantial weather-resisting wall. In some cities rolled iron beams are used for the frame, though generally, timber frames are the more common.



Vestibule - Valencia.



Even minor partitions are so constructed, so that it is not uncommon to see the frame complete to the height of three or four stories, before the masonry has been carried above the foundation; a complete

skeleton of a house, in which every space not destined to be filled by either a window or a door, is crossed by heavy diagonal braces. In the end, all woodwork of the construction is embedded out of sight in a fire resisting material. The stiffness of the walls and partitions, as constructed, permits vaulted ceiling wherever desired, though timber ceilings are the more common and always the more artistic. Often broad spaces are spanned by brick or masonry arches, which support the wooden ceiling making an effective combination. The stair construction common to the older houses is peculiar. The material is brick or stone, and the steps are borne by an arch thrown from floor

to wall while the next arch rises from the crown of the first, and so on, as indicated in the sketch. The stairway thus formed is generally ungraceful, but firm and fireproof.

The out-of-door life of the Spaniard constitutes so great a part of his existence, that we may note his street and street life while we are engaged in his dwelling. The streets of Spanish towns in general are narrow, crooked and destitute of shade trees. This is peculiarly the case in the southern towns, so that in Seville, for instance, awnings are stretched from house-top to house-top, across the streets, during the sunny hours of the summer days, and one street, a relic of Moorish engineering, bears a name which describes its principal characteristic, "The Street of the Seven Turnings." Many of the streets are not wide enough to admit of the passage of wheeled vehicles. Besides this, cobblestones are favorite paving materials, so that pleasure-driving in the city is not possible. Therefore each city has its fashionable drive just outside the crowded portion, with its carriage road, foot and bridle paths, each finely adapted to its special purpose, and all amid the most lovely natural surroundings—palm, orange and lemon trees for bright foliage, stately elms for shade, with here and there a dark cypress to strike the note of seriousness and solemnity so necessary to the perfect enjoyment of the scene. Here, in the afternoon of every fair day, the "World" suns itself for the benefit of itself and neighbors. The assembly is least mixed on Sunday afternoons, for then the riff-raff, the lottery ticket venders (their name is legion), the beggars (we have no numerical phrase comprehensive enough to name them), and the "stranger within the gates," are at the bullfight. It would be wrong to leave the impression that the streets, though so narrow and cramped, contain nothing of interest architecturally. The impression would be conveyed in the phrase, "whitewashed and uninteresting," as applied to street fronts. The street facades of some of the dwellings, especially when done in the style of the Spanish renaissance, are architectural gems, fine in proportions, and rich and elegant in sculptured decorations. Then good fortune seems to have placed the churches just so that the domes or towers may add their masses and lines most effectively to the surrounding composition. The

rich carving about the church doors presents itself for your edification just as the eye is wishing relief from blank white-wall spaces. But then very often a little house, very commonplace in itself, is rendered interesting by historical associations, or is made attractive by the light which tradition sheds upon it. Thus there is a certain corner in Seville which, before you knew the story attaching to the locality, you might pass any number of times without having your attention attracted to the little house or its surroundings. But when you have learned that it was up in that caged window that the barber sat, and, plucking his guitar strings, plucked the heart of the princess, you cannot pass the spot again without glancing up at the window and seeming to hear the tinkle of the guitar, silenced so long ago.

The parks and little squares are not destitute of beautiful bronze or marble fountains and statues. In fact, these tokens of regard for the comfort and convenience of living people, and of respect and veneration for the distinguished dead, are very common. These statues of great men should be instruments of instruction. When one has been attracted for a moment to idly watch a parcel of young ragamuffins playing at bull-fight, it is with a feeling of mortification that, on looking up, one finds himself standing in the shadow of the great Velasquez, who is looking earnestly and resolutely in stone, as he did in the flesh, beyond and above the meanness and the vulgarity about him. It may not have been the sculptor's intention to moralize when he paid his tribute to the memory of Velasquez, nevertheless the



An Attractive Balcony
Seville.

sculptor did preach a powerful sermon in stone.

Sermons rarely fall with effect on the ears of the people for whom they are intended, and are not appreciated by those who should find in them useful lessons. So the Spanish boy does not learn from the great painter, but notes every movement and word of the bullfighter; dresses like him, swaggers like him, imitates him in sport, and grows up to love the inhuman profession engaged in by this brute. Even the daughter of Spain accustoms herself to the sight of bloodshed in sport (if, indeed, the desire to drink hot blood is not born in her), so it is not to be wondered that the stiletto is a deadly instrument in her jealous hand. So far as the average Spaniard is concerned, the sermon never gets beyond the silent lips of the stone statue.



A Draughtsmen's Association Formed.

IN accordance with the suggestion made last month the draughtsmen of Chicago are organizing themselves into a club for mutual improvement.

A preliminary meeting for consultation was called and took place at the office of THE INLAND ARCHITECT AND BUILDER. As the design of T. Square—Mr. J. H. Carpenter—who called the meeting, was to secure a limited number of the leading draughtsmen, the work proposed for the initial meeting being preliminary, a general invitation was not issued, and the call was responded to by all addressed, with the exception of two who live out of town.

R. C. McLean was called to the chair, and Harry Wheelock asked to act as secretary.

After a unanimous vote being made to proceed to organize an association of draughtsmen, the entire meeting was taken up with the discussion of the best plan to adopt.

The general idea and the most popular expression that was incorporated in the remarks of those present was to the effect that the association should be simply a club for improvement and enjoyment, and that the work done should be in thorough harmony with the architects, and that it should *not* in any manner approach trades-unionism.

The arguments in favor of such an organization were many, one of the strongest being that because of the general inexperience among draughtsmen as supposed to exist by wood carvers, stone cutters, decorators, plumbers, etc., each trade is in the habit of employing its own special draughtsmen, and it should be the work of the association to improve each member in each branch of design.

The tenor of each speech seemed to be that the draughtsmen were anxious for improvement, and that a club should be formed for this purpose. It was thought best to have a junior class, in which all draughtsmen of one year's experience could enter; that draughtsmen of three years' experience should be eligible for seniority, and that all should accompany their application for membership with a sketch.

A committee was appointed, consisting of Harry Laurie, Geo. Beaumont, Wm. Zimmerman, J. H. Carpenter and Irving K. Pond, to prepare a constitution and by-laws, with instructions to secure copies of the rules of the British association, the junior association of Glasgow, and the associations of Boston, New York, and Des Moines, for their guidance.

A committee on rooms was appointed, consisting of Edward Dewson, W. G. Williamson and C. A. Kessell, to report upon permanent quarters for the association. Those present and who were voted to comprise the charter members of the association were: Harry Laurie, W. A. Otis, J. H. Carpenter, Edward Dewson, W. J. B. McCullough, C. A. Kessell, Geo. Beaumont, Harry Wheelock, Irving K. Pond, Myron H. Church, Wm. Zimmerman, Cicero Hine, L. B. Dutton, W. G. Williamson, G. A. Hawkins, J. T. Warine, J. T. Hetherington, T. D. Hetherington.

The meeting adjourned after the committees had been appointed, to meet on Thursday evening, March 12, when the organization will be perfected.

The movement should receive the support of every draughtsman who wishes for advancement in his profession, and it is being heartily indorsed by the architects.

Cincinnati Builders' Exchange.

THIS Association is now one of the permanent commercial bodies of Cincinnati. It was incorporated December 24, 1878, and at the start the membership list was a large one for such a body. Reverses came to the exchange, and matters looked gloomy for its success; its membership dwindled to about seventy members, who proved to be staunch friends. Two years ago, by hearty coöperation and hard work on the part of these members, new energy and life were infused into the exchange, and prosperity was the result, the membership now numbering two hundred and fifteen, with new applications constantly being received. The annual dues are at present only ten dollars, but these will be increased to ten dollars annual dues, and ten dollars initiation fee for all members received after March 1, 1886.

The seventh annual election took place March 2, and proved to be the most exciting in the exchange's history. There were two tickets presented, one being headed by William A. Megrue, a prominent brick contractor, and the other by James H. Finnigan, an influential stone contractor, both candidates being popular and capable gentlemen. The result, insuring a good, live, energetic board, was as follows:

President—William A. Megrue.

Vice-presidents—George B. McMillar and Joseph Foster.

Directors—L. B. Hancock, Samuel Dickson, G. F. Neiber, L. H. McCammon and J. F. Tuttle; besides, Lawrence Grace, J. C. Harwood, T. E. Livezey, J. G. McGarvey, J. B. Schroder, who hold over from last year.

Committee on Arbitration—J. G. Evans, Dennis Flaherty, Samuel Tappin, and Robert Blair.

Committee on Appeals—D. Hummel, H. B. Lucky, John Speery, Henry Bertling, L. H. Wilson and F. S. Rohan.

Treasurer J. M. Blair presented his report, in which he stated the balance in his hands to be \$516.18, a most creditable result of good financial management.

The secretary, Lawrence Mendenhall, presented a report from which the following items are quoted:

From the report of the secretary it was represented that the association was in a condition of prosperity that insured a permanent success. Good management has secured a balance in the treasury amounting to \$516.18, as stated in the treasurer's report, and hearty coöperation on the part of members has resulted in an increase of associates, now numbering one hundred and eighty-four, being a gain of fifty-eight members over the report of last year. In addition to this there are thirty-one newly elected members, whose connection with the exchange begins on March 1, and consequently are not counted in the annual summary. The deaths of members during the year were Henry Bevis, Geo. Meiners and Richard Moore.

There have been held sixteen board meetings, ten general meetings, besides the daily ones, at which topics appertaining to the trade and the welfare of the exchange have been discussed. A number of useful committees have been in successful operation, and the exchange has proven a saving to contractors and a protection against unjust forfeits. The building business in all branches in the year 1884 was prosperous and largely in excess of previous seasons; and one fortunate feature was the absence of strikes, which was not only a prominent factor of success, but a benefit alike to contractor and laborer.

President-elect Megrue, upon assuming the chair, thanked the members for the honor, etc., in a well worded speech, and immediately called a meeting of the directors for organization. Messrs. Blair and Mendenhall were unanimously reelected for the positions of treasurer and secretary.

Such is a brief account of the history of this body, and we cordially wish this exchange abundant success.

Our Illustrations.

Reconstruction of the Chicago Exposition Building into an opera house by architects Adler & Sullivan, Chicago. Description on page 25.

Residence for E. D. Wheeler, Manistee, Mich., by W. L. B. Jenney, architect, Chicago. The basement is rubble stone; first story, brick, with blue Redford stone trimmings; second and third stories, open timber work, with red tile trimmings, slate roof. The interior finish is hardwood. The cost, \$40,000.

Block of apartment houses, for John M. Dowling, by A. Smith, architect, Chicago. The frontage is on the lake, and the plan, on the ground, is irregular, to give a view from each house. They are four in number, upon a lot 70 by 82 feet. Basement, of rock-faced greenstone; pressed brick walls, ornamented with terra-cotta; Lake Superior brownstone trimmings and steps of blue stone. Cost, \$35,000.

Residence for A. H. Chapin, Niles, Mich., by Wheelock & Clay, architects, Chicago. The house stands upon high ground, with almost a block of ground around it, in a prominent locality, and will compare favorably with any residence in that beautiful city. It is 60 by 75 feet. The foundation is of rock-faced boulder stone, and the walls of pressed brick, with high, pitched slate roof. It contains all modern improvements, is heated by steam, and will cost about \$50,000.

RESIDENCE and barn for Alexander Moody, erected at the corner of Washington boulevard and Leavitt street, Chicago, by Wilson & Moody, architects. The exterior is constructed of Anderson pressed brick, with Connecticut brownstone and terra-cotta trimmings. The interior will be finished in the different hardwoods polished. The windows are of plate glass and stained glass. The house will be heated and ventilated by Baker & Smith's system of steam heat and ventilation. The entire improvement will cost about \$25,000.

Few names are better known in the building history of Chicago than those of J. J. Lockwood and S. S. Kimbell. For fifteen years Mr. Lockwood has been a prominent figure in the brick business here, and Mr. Kimbell has been connected with building since boyhood, and was formerly of the widely known firm of Purington & Kimbell. These gentlemen have joined interests under the firm name of Lockwood & Kimbell, and propose to deal in all kinds of brick and other lines of building materials. They are building a substantial warehouse, 60 by 160 feet, at Fifth avenue and Polk street, where they will have a finely appointed office, and an exhibit room showing the various lines of brick set in different kinds of mortar, and samples of the other materials handled. This warehouse will amply accommodate the large stock of brick and other materials which the firm intend having on hand at all times to supply orders for immediate delivery, arrangements having been made for a permanent stock of one hundred thousand St. Louis brick, alone. The aim of the firm is to make their establishment the headquarters of the brick interest, not alone for Chicago, but for outside, and they are confident that architects, contractors and owners will be helped in their selections by calling at their warehouse and inspecting the samples arranged under practical conditions. This is a new departure for Chicago, and one destined to become popular. The firm expect to occupy their new building by April 1, but until its completion, Mr. Lockwood may be found at 199 Lake street, his present office.

A Mammoth Opera House.

ARCHITECTS Adler & Sullivan, of Chicago, have under construction perhaps the largest opera house ever designed. In preparation for the Opera Festival, which commences its season April 6, the Chicago Opera Festival Association have inaugurated the complete transformation of the north half of the Exposition Building, according to the illustration which is presented in this number, and the plans of the architects which are given above, and have left nothing undone to insure the success of the greatest opera season Chicago has yet enjoyed. All the appointments of a first-class opera house are arranged for by the architects, and though of a temporary nature, care has been taken to secure stability of construction and the agreeable and harmonious interior of a permanent structure. They have the advantage of having prepared this building for two national political conventions and several May festivals, so that their practical knowledge of the requirements of the building, both in facilities for seating large audiences and for securing perfect acoustic properties, is exceptional, while their position as architects of almost national reputation will guarantee a safe and convenient structure.

The width of the proscenium arch is 60 feet; the size of the stage is 80 by 120 feet, on either side of which are the artists' "dressing-rooms." There are eleven of these, averaging 10 by 15 feet each. Behind the stage, occupying a semi-circle, of a radius of 75 feet, are the assembly rooms for chorus, orchestra, ballet, etc. The scene-room is east of the stage in the machinery hall. The rigging will be 61 feet above the stage floor, thus permitting the handling of drops the full height of the proscenium opening. Abundant provisions have been made for traps, etc., under the stage.

In the arrangement of the auditorium it was, above all things, necessary to secure absolute safety and solidity of construction, and while innumerable matters of detail required attention, the one object insuring the absolute safety was never lost sight of. In further pursuance of this end the architects have paid especial attention to the means of ingress and egress. Twenty pairs of doors, with a total width of 100 feet, have been provided as main entrances and exits, and so connected by corridors, aisles, and staircases with the various parts of the auditorium as to bring the audience quickly and promptly to their seats, and to prevent crowding and jostling at the exits. In addition to these main exits, a number of auxiliary exits will be provided on the east side and at the north end of the building, so as to utilize to their fullest extent all the facilities for rapid dispersing of an audience afforded by the fortunate location of the Exposition Building.

In pursuance to the general scheme of bringing the audience to and from the seats as rapidly and with as little confusion as possible, two entrances, one for each side of the house, have been provided for those who come to the performances in carriages.

The entrance to the dress circle will be by way of the Adams street doors of the Exposition Building. The entrance to the parquet will be cut through the six window openings north of, and the entrance to the gallery through the six windows south of the Adams street entrance. The sashes will be taken out of these windows, double doors inserted in their places, and large vestibules erected outside of the walls of the building. The main staircase leading to the dress circle will be twenty-five feet wide, that leading to the gallery will be thirty feet wide. In addition to these stairways there will be auxiliary stairs for use as emergency exists. The unusually great width of these staircases has made it necessary to divide each flight by hand-rails, put up close enough to each other to secure convenience of ascent and safety of descent, which will be still further insured by the easy rise with which all the stairs are to be constructed. Extending outward and forward from the proscenium are two tiers of private boxes on each side of the house, with seating capacity for three hundred persons. They inclose the fan-shaped parquet, which contains 2,238 seats, as many as the combined seating capacity of the first floors of McVicker's and the Columbia Theaters, and the Central Music Hall. The seats of the parquet are stepped so as to bring the back seats five feet above the level of the front of the house, and the boxes, sixty in number, are elevated all around. Behind the parquet is an aisle twelve feet wide, and behind this, and three feet above it, is the dress circle, containing 1,486 seats.

The main balcony is altogether above and partly behind the dress circle. It contains 1,834 seats. The side balconies are a continuation of the second tier of boxes, on the level of the old gallery of the Exposition Building, and will contain 352 seats.

To secure the comfort of this mass of 6,200 people, ample retiring and cloak-rooms have been provided for each division of the house, while the grand promenade and grand salon give abundant space for recreation between the acts. Particular attention has been paid to the luxurious appointment of the salon and promenade, the one being the present dining-room, and the other the northwest aisle of the building. The approach to the boxes and side balconies will be through the promenade and salon.

The efforts for heating have been directed most particularly to the proper warming of all lobbies, vestibules, promenades, and other spaces surrounding the auditorium, and also the stage and its dressing-rooms, with a view to the prevention of disagreeable draughts in the auditorium.

In the design of the decorations of the auditorium, the principal feature is the transition from the proscenium to the auditorium. The walls of the proscenium open out fan-like, and spread forward into the parquet, a distance of sixty feet, thus forming an immense sounding board. The monotony of these diagonal surfaces is broken by the private boxes, which, as may be seen on our illustration, will be quite unique in design. The vast sounding board will be richly ornamented by color decoration and plastic forms.

THE drawing illustrating the design of Architects Adler & Sullivan, for the opera festival hall, is by Paul C. Lautrup, Esq., an artist who stands first in his profession as a water-colorist, or for pen and ink sketching, and one whose work has not only promoted a desire among architects to secure perspectives of their best creations, but is daily educating draughtsmen in this line of architectural work. The design for our table of contents, published last month was drawn by him.

Lumber Notes.

THE Wolf river, Wisconsin, log crop is set down at 87,000,000 feet.

THE receipts of white pine lumber at St. Louis, Mo., in 1884, amounted to 134,759,928 feet, against 129,492,639 feet in 1883, and of shingles 74,570,533, against 60,056,671 in 1883.

It is said that in 1880 the Mitchell Lumber Company, of Waynesville, N. C., bought all the trees in the two largest counties in North Carolina at \$1 per tree, and are now selling them as fast as they can be delivered at \$20 each. The company have cut and shipped since the first of May last 20,000,000 feet of walnut and 1,000,000 feet of poplar in the log to England.

THE local lumber dealers and manufacturers of sashes, doors and blinds of Cincinnati met February 27, and perfected an association to be called the Cincinnati Lumbermen's Exchange. About twenty of the thirty-five dealers and mills in the city were represented at the meeting in the Mechanics' Institute building. Colonel Wm. L. Robinson was called to the chair temporarily. The object of the association is the protection of its members against sales to consumers (carpenters or individuals) direct by wholesale dealers. A secondary object is the dissemination of information among members as to what builders are poor pay. Any carpenter failing to pay his lumber bills is to be blacklisted, and other lumber or mill men are forbidden thereafter to sell to him except for cash. The annual dues are five dollars, and such assessments as the Executive Committee may make. A constitution was adopted and the following officers chosen; President, Thos. Gilpin; vice-president, Wm. L. Robinson; secretary, J. H. Doppes; treasurer, P. H. Taft. The president will appoint three members, who are to be the executionary executive committee. Lawrence Mendenhall was elected assistant secretary.

The sixteenth annual meeting of the Lumberman's Exchange of Chicago took place Monday, March 2, at their rooms, 252 South Water street. In honor of the occasion the exchange gave an elaborate lunch. One hundred and twenty-eight plates were laid, and before the meeting was well under way, practically, every seat was taken. President J. P. Ketchum called the meeting to order, with the first business, the reading of Secretary Geo. W. Hotchkiss' report. This was followed by reports of Treasurer A. G. Van Schaick, and chairman of the Auditing Committee, Hon. Addison Ballard. The president, in closing his duties of office, thanked his fellow members for their confidence, and assured them that as a high private in the rear ranks he would endeavor to be a worthy member. It was moved by Mr. Dean that twenty-five names be placed in nomination upon blackboard, to be balloted for, to select thirteen for the new board of directors. The same course was pursued for committee on arbitration and on appeals. The chair appointed Thomas Morris, Thomas Walkup and M. B. Hull, tellers. The result for board was: J. H. Swan, P. G. Dodge, A. A. Bigelow, A. C. Loper, Thad Dean, Addison Ballard, Lerley Lowe, W. E. Kelley, D. S. Pate, C. A. Sweet, R. W. English, C. L. Cross, J. McLarns.

Arbitration Committee: Thomas Morris, A. T. Lay, M. B. Hull, B. L. Anderson, R. V. Wells.

Appeals Committee: W. Scott Keath, Louis Hutt, V. A. Watkins, C. C. Thompson, James McMullen.

Short addresses were made by Mr. Thad Dean, Mr. C. C. Thompson, Mr. A. G. Van Schaick and Mr. S. K. Martin.

A resolution was adopted, which provided that the incoming president appoint a committee to make all necessary arrangements for the entertainment of the National Association of Lumber Dealers, at their next convention, to be held May 13. The president and other officers of the exchange will be elected by the board at their first meeting, Monday, March 9.

The Public Building Appropriations.

The following is believed to be a correct statement of the amounts appropriated for the construction and repair of public buildings and the purchase of sites, exclusive of those for Chicago.

Baltimore	\$27 000	Leavenworth	\$ 50 000
Bangor	18 000	Macon, Ga.	75 000
Boston	15 000	Montgomery, Ala.	5 000
Brooklyn	135 000	Minneapolis	110 000
Buffalo	37 500	New Orleans	15 000
Caro Marine Hospital	37 000	Peoria	75 000
Charleston, W. Va.	1 153	Poughkeepsie	30 000
Chicago (cleaning and painting the stonework, and repairs to the custom-house and the sub-treas- ury)	40 000	Quincy, Ill.	47 500
Cleveland	3 000	Reading, Pa.	80 000
Columbus, O.	110 000	Richmond, Va.	50 000
Harrisburg, Va.	22 500	Rochester	80 000
Abingdon, Va.	37 000	Sacramento	100 000
Lynchburg, Va.	50 000	St. Louis Marine Hospital	10 000
Concord, N. H.	100 000	Shreveport	5 000
Council Bluffs	50 000	Syracuse	48 000
Dallas, Tex.	25 000	Terre Haute	75 000
Denver	28 000	Toledo	72 467
Detroit	200 000	Troy	100 000
Des Moines	45 000	Tyler, Tex.	50 000
Dubuque	8 000	Wichita	50 000
Frankfort, Ky.	15 000	Fort Scott, Kan.	50 000
Fort Wayne	60 000	Williamsport, Pa.	25 000
Galveston	47 000	Montpelier, Vt.	75 000
Greensboro, N. C.	7 500	Nebraska City, Neb.	75 000
Hannibal	55 500	Wilmington, Del.	150 000
Jackson, Tenn.	10 000	Marine Hospital, New York	280 000
Jefferson City	132 000	New Albany, Ind.	100 000
Kansas City	20 000	Manchester, N. H.	100 000
Marquette	20 000	Lexington, Ky.	150 000
Keokuk	100 000	Springfield, O.	100 000
St. Joseph, Mo.	50 000	Jail at Sitka	4 000
Louisville, Ky.	200 000	Court-room at Sitka	1 500
		Court-room at Wrangel	500
		Court-room and jail at Ounalska	1 000
		Court-room and jail at Juneau City	4 000

The sundry civil appropriation bill authorizes the sale of the old United States court-house, at Boston, at auction within ninety days, for not less than \$225,000, and the old court-house and postoffice, at Philadelphia, which is now unoccupied, for not less than \$300,000.

Correspondence.

INDIANAPOLIS, Ind., February 20, 1885.

Editor Inland Architect and Builder:

DEAR SIR,—In your journal of February, page 15, under Indianapolis items, my name is erroneously connected with the fire at the hospital of the insane, located near this city, and I am held responsible on account of the inadequate water supply.

Permit me, by way of explanation in justification of myself, to say that the hospital for insane near this city, and the one in question, has been finished but a short time. Mr. Edwin May was the architect.

Two years ago the legislature authorized the building of three additional hospitals.

In August, 1883, I was selected as the architect for these additional hospitals, and began my work thereon at once.

I have been very careful in the preparation of systems and character of construction, and intend making these hospitals a success in every particular. Associated with me in this work is Dr. Jas. G. Rogers, the board's medical engineer. His long experience with the insane in a practical way; his skill as a mechanic, thoroughly posted in details of architecture, render him a valuable director. Mr. Gibson is also associated with me in this work and prepared for me a paper on fire protection of hospitals, which was submitted to the board, in conjunction with the plans, February 26, 1884.

In a short time I will send you plans and perspectives of these various hospitals, with full description, for publication.

Very truly yours, E. H. KETCHAM.

New Publications.

ARCHITECTS' AND STAIR-BUILDERS' TABLES OF TREADS AND RISERS. By JOHN A. HAMILTON, Architect. WM. T. COMSTOCK, N. Y., Publisher, 1885.

Without practical demonstration this book of tables would seem to be of great use to the stair-builder, in view of its great saving of time to busy men, and a guide to young draughtsmen and stair-builders, aiding them in securing accuracy in this department of construction. Besides the tables, explanations and examples are given which further add to the completeness of the book.

CATALOGUE. H. A. LEWIS, Boston Architectural Terra-Cotta Works, South Boston, Mass.

By photogravure printed in terra-cotta color this company illustrate their many forms of executed work. Their capabilities for production seem to be as broad as any in the country, ranging through every department of terra-cotta design, from chimney tops to mantels, and all presenting an artistic feeling of the highest class. Within its pages are recorded upward of a hundred buildings located in almost every state in the Union, into which have been incorporated some of their work. The catalogue, like their designs, is artistic and pleasing, the attempt being rather to show in the best possible manner the quality and extent of their designs, and this they have accomplished, as each illustration is a speaking model of the executed terra-cotta it represents.

ARCHITECTURAL PERSPECTIVE FOR BEGINNERS, containing eleven plates of practical examples, considered with reference to a student in an architect's office. By F. A. WRIGHT, Architect. WM. T. COMSTOCK, N. Y., 1885. Price, \$3.00, sent by mail, free of postage, to any part of the world.

Like other books of its class which have been lately prepared for architectural draughtsmen, this book is designed to aid the self-taught student, and comes from an architect's personal experience, demonstrating his line of work to reach certain results. Believing most writers to have been too complex, he has sought for simplicity of expression, and by direct demonstration to show the student each step, from the drawing of parallels to the complete perspective. While the author is not as artistic as one could wish, his execution does not overrun the line of his instruction, and with an elaborate description of each of the eleven object plates, he brings his student to a knowledge of the fundamental principles from which, if he have the necessary talent, his own experience will prove the best teacher. The publication of such books as these should be encouraged, for though the artist may often find that his methods differ in obtaining results they give the beginner a foundation upon which future work can be developed.

The *Building Budget* is a monthly journal, a precursory number of which was issued in February in Chicago, by Henry Lord Gay, proprietor of the Permanent Exhibit and Exchange of Building Materials. It is sixteen pages with cover, contains well selected matter, is well printed, and, as the prospectus states, it will be devoted to the promotion of the interests of the exchange. The editorial and other matter is very creditable.

Hand and Brain is a new publication which made its appearance in February, published in Chicago, in the interest of manual training in general, and the Chicago Manual Training School in particular. It is a private enterprise, and, as the publisher ingeniously says, "is published, not with the design of pecuniary profit, nor to gratify personal vanity, but with the honest purpose of advocating the claims of manual training." The contents are a general exposition of the methods of the Chicago Manual Training School, including a cut of the building and general matter pertaining to the subject. We are glad to see it, cordially welcome it, and hope that the project of issuing quarterly will, at least, change to monthly, and that it will not only meet with the success it asks for, but become a factor in educational matters in the West. It is printed upon good paper, in brown ink, and arranged in neat form, but we would suggest that an improvement in presswork and proofreading is most necessary, its fine features being dimmed by deficiencies in these. So great a purpose should not be stultified by careless printing.

Mosaics.

B. R. HAWLEY, has removed to the Adams Express building.

THE corner stone of the Texas state capitol was laid on the 2d instant. The stone is Texas granite, engraved with the Lone Star and other emblems. Grand Master Z. E. Combas, of Dallas, officiated.

ARCHITECT ALEXANDER KOEHLER, of Cleveland, Ohio, has taken as a partner, Architect Geo. F. Hammond, late of Boston, Mass., Fellow of the Boston Society of Architects. The name of the new firm is Koehler & Hammond, with offices in city hall building.

THE use of Portland cement is increasing largely each year. The house of Howard Fleming, of New York, who is the largest importer of Portland cement in this country, has, during the past eight years, imported over three hundred thousand barrels of this material.

MR. HENRY M. WILMARTH, senior member of the old and well known gas fixture firm of H. M. Wilmarth & Bro., of this city, died suddenly, February 27, of paralysis. Mr. Wilmarth has been one of Chicago's most substantial capitalists and business men for nearly thirty years.

A NEW ornamental tile has appeared in the Chicago market, and is handled by Healy & Millet, C. J. L. Myers' Co. that is quite ornamental. It is made by Mr. DeHogarth, of Chicago, and expresses, not only a new departure in the making of tile panels, but is possessed of permanent qualities in its raised color decoration.

ROOM mouldings go hand in hand with the decorator in the finishing of interiors, and W. H. Fleming, of 113 East Madison street, Chicago, has gone into the work of supplying and applying them extensively. He employs experienced workmen to place them and is constantly designing new forms to harmonize with the different styles of wall decoration.

THE well known firm of Henry Dibblee has made a change in firm members, Mr. Anson S. Hopkins becoming a partner, under the name of Henry Dibblee & Co. During the seven years Mr. Hopkins has been connected with the firm he has won many friends among architects and the patrons of the house generally, who will be glad to hear of his advancement.

THE attention of architects is called to the fact that the house of Coffin, Devoe & Co., of Chicago, beside carrying their well known line of paints, varnishes, colors, etc., make a specialty of engineers' and architects' supplies, and exhibit a complete stock of draughting instruments, covering the entire field of the architect's or the engineer's requirements. The reputation of the house insures everything to be first-class.

THE use of compressed lead weights for windows is increasing, and not only in the small weights for residences, but in extraordinary sizes, where their weight is so much greater than iron for the space occupied as to make the saving enormous in the width of the window frames. A contract has just been completed by the manufacturer, J. N. Raymond, of Chicago, for the new board of trade building; some of the weights furnished weigh four hundred pounds each, or eight hundred pounds per window. These weights are raised and lowered by a crank, cords being attached to either end of the weight.

A FINE bronze statue of Hercules, in a perfect state of preservation, except a fracture across the legs, has been discovered in the course of the work connected with the building of a new theater in Rome. It is probable that it belonged either to the Baths of Constantine or to Hadrian's Temple of the Sun, which stood near each other at the corner of the Quirinal Hill. The statue measures upward of six feet in height, and, considering how very few of the many bronze statues which ornamented the ancient city of Rome have been found, its recovery constitutes an archaeological event of the highest interest.

IN noticing the change in the firm of Hinchliff & Owen and the reorganization of the firm as W. E. Hinchliff & Co., attention is called to the enormous amount of Indiana pressed brick used, the larger part of which has been supplied by that firm. The business has steadily increased from two causes: The demand for brick generally, and the improvement in the process of manufacture. The proximity of the works of the company to so large a market saves a large expense in transportation, and the adaptability of Indiana clay to brick making makes the brick handled by this firm extremely cheap compared with their excellent quality. In all the large school houses built during the past year Indiana brick has been used without exception, and its fine, red color and durability will continually add to its favor and use by architects and contractors.

THE subject of heating by a circulation of hot air is one that has long been experimented with, and only of late been brought to anything like perfection. B. R. Hawley, whose pluck and energy combined with a more than talent, a genius, for this subject, has given to architects many devices for the distribution of heat, and has now in operation one of which too much can hardly be said. Though it may not revolutionize present methods, it will at least lay the foundation for improvement in all systems, having for a basis the circulation of hot air through pipes and distributed by radiators similar to the present system of steam heating. The patents of Mr. Hawley are beginning to be recognized, and it is the opinion of experienced architects it will in the future add much to the health and comfort of our houses.

MR. THOMAS HAWKES, whose able article on Landscape Architecture appeared in our issue of November last, has returned from England, and no doubt that during the forthcoming season, ample scope will be given him to display his ability both in the neighborhood of Chicago and throughout the West, not only in laying out parks, but in selecting the sites for and planning the grounds for those large houses that are constantly being erected throughout the country, as he brings to our western country special knowledge on these matters. Mr. Hawkes, who is agent for the "Willesden" roofing, has made arrangements to keep on hand a continual supply of these excellent materials. All those needing a weather-tight and cheap roof should visit and inspect his interesting display at the Permanent Exhibit and Exchange of Building Materials.

Inventive Genius in Building.

- 211,165. Skeleton Tower. John S. Adams, Elgin, Ill.
 311,166. Electric-Light Tower. John S. Adams, Elgin, Ill.
 311,167. Iron Grating. John S. Adams, Elgin, Ill.
 311,221. Leveling-Rod. Henry F. Bean, Jackson, Mich.
 311,241. Saw-Vise. Henry Flater, Findlay, O.
 311,245. Skylight. Edward Henn, Jersey City, N. J.
 311,248. Calipers. Stewart A. Jellott, Philadelphia, Pa.
 311,252. Window. Martin S. Millard, Kansas City, Mo.
 311,279. Safety-Attachment for Elevators. Arthur M. Baker, New York, N. Y.
 311,288. Sash-Fastener. William Brown, Duncannon, Pa.
 311,307. Door-Spring. William Gilfillan, New Haven, Conn.
 311,309. Device for rendering Wooden Houses Fire-proof. John N. Glover, Chicago, Ill.
 311,313. Hot-Air Heating Apparatus. John L. Hamilton, St. Joseph, Mo.
 311,327. Hydraulic Lift. William H. Johnson, Westminster, County of Middlesex, Eng.
 311,342. Hopper Water-Closet. Henry W. Mansur, Boston, Mass.
 311,369. Elevator. Samuel T. Richardson, Baltimore, Md.
 311,386. Surveying-Instrument. Chas. E. Taft, Chicago, Ill.
 311,392. Weather-Strip. Gustavus C. Wagner, Mount Vernon, N. Y.
 311,394. Combined Anvil, Vise and Drill. Jas. Weathers, Indianapolis, Ind.
 311,401. Paint. William H. Wilber, Buffalo, N. Y.
 311,442. Lumber-Drier. Horace J. Morton, Pullman, Ill.
 311,443. Pocket Water-Closet. Charles C. Nash, Providence, R. I.
 311,489. Elevator. Charles W. Hays, Orange, N. J.
 311,502. Hot-Air Furnace. Abram Mann, Kansas City, Mo.
 311,504. Elevator. Volney W. Mason, Providence R. I.
 311,509. Fresco-Work. Ettore S. Miragoli, St. Louis, Mo.
 311,510. Awning for Windows. Matthew Moneymont, Philadelphia, Pa.
 311,557. Drying Apparatus for Brick and Tile Kilns. Chester L. Ames, Cabery, Ill.
 311,567. Deafening or Filling for Walls. Leonard E. Clawdon, San Francisco, Cal.
 311,569. Composite Roofing. William Coultas, Stockton-on-Tees, County of Durham, Eng.
 311,578. Scaffolding. John T. Haskell, Norwalk, Ohio.
 311,608. Flooring Clamp. Alonzo Redman, Chicopee, Mass.
 311,649. Automatic Safety-Brake for Elevators and Hoists. Dominique Crespin, de la Jeanniere, Paris, France.
 311,656. Apparatus for Laying Sub-Marine Tunnels and Tubes. Hayden H. Hall, New Hamburg, N. Y.
 311,665. Tile-Kiln. Gregory Jennings, West Cairo, O.
 311,666. Lath. James Morrison, Jr., New York, N. Y.
 311,674. Ash-Chute. Henry Pashley, Brooklyn, N. Y.
 311,676. Roofing-Bracket. Edwin Prescott, Arlington, Mass.
 311,677. Construction of Buildings. Elisha L. Randall, Durand, Wis.
 311,684. Elevator-Hatchway Cover. William H. Skerritt, Jersey City, N. J.
 311,694. Apparatus for the Manufacture of Artificial Stone. C. Irvine Walker, Charleston, S. C.
 311,729. Asbestos Packing. John Dewrance, Lambeth, County of Surrey, Eng.
 311,741. Machine For Sawing Stone. Paulin Gay, Paris, France.
 311,742. Pneumatic Door-Check. William Gilfillan, New Haven, Conn.
 311,783. Elevator. William F. Rau and Conrad Münch, Cincinnati, O.
 311,784. Skylight. Richard H. Reillé, New York, N. Y.
 311,800. Calipers. Charles H. Alapaw, St. Louis, Mo.
 311,805. Fire-Escape. Joseph H. Bowley, Marengo, Ill.
 311,825. Weather-Strip. Solomon Funk, Spirit Lake, Ia.

Synopsis of Building News.

Anoka, Minn.—Architect W. G. Miller reports: For board of education, two-story brick, with Kasota stone trimmings, 60 by 66 feet, four rooms, cost \$10,000. For Chesley & Lindsay, L-shaped brick store building, two-story, 28 by 19 feet, cost \$6,000; under way. For Pease & Daniels, two-story brick, double store building, 40 by 60 feet, cost \$5,000; under way.

Austin, Tex.—Architects J. N. Preston & Son report: For S. A. Alexander, at Brenham, Tex., one-story frame cottage, 44 by 66 feet, cost \$3,500; not contracted. For John Smith, at Austin, Tex., two-story frame dwelling, 42 by 58 feet, cost \$4,200; not contracted.

Bay City, Mich.—The St. James congregation have decided to build a large brick edifice to take the place of the frame structure burned Sunday night, December 21. It is to cost \$30,000.

Boston, Ind.—Outlook good. Architect John F. Henry reports: For Will Hart, two-story frame dwelling, 32 by 64 feet, cost \$2,500; projected. Also two-story frame stable, 40 by 70 feet, cost \$1,500; projected. For J. M. Rife, two-story frame dwelling, 28 by 40 feet, cost \$1,800; under way. S. J. Johnson, builder.

Bozeman, Mont.—Nelson Story is to build a \$50,000 business block. Work will be commenced with the opening of spring.

Canon City, Colo.—Present outlook good. Real estate men say: "We are selling more building lots than we have for the past three years. It is believed that many capitalists, who are engaged in mining business, will leave the mountain towns in the spring and build in Canon City."

Architect Geo. W. Roe reports: For Fred E. Smith, one-story stone building, 34 by 47 feet, cost \$4,500; nearly completed; Nichols & Bradbury, builders. For Lyman Robison, two-story eleven-room brick residence, 60 by 76 feet, elaborate cutstone trimmings, mansard roof covered with metallic shingles, cost \$17,000; under roof; C. J. Smith, builder. For J. J. Phelps, four-room addition to residence, 32 by 34 feet, cost \$2,000; plans just finished. For Lyman Robison, stable, 45 by 47 feet, brick, with cutstone trimmings and mansard roof, cost \$3,000; under way. Also several small buildings costing from \$800 and upward.

Cheyenne, Wyo. Ter.—The government is building a military post about one and one-half miles from town. It is proposed to spend about \$150,000 in the next two years.

Plans are being prepared for two new church buildings, which will be commenced as soon as the weather will permit. Other building is talked of, and it is probable that the spring season will be quite brisk.

Chicago.—There is now no reason to suppose that the coming year will see the accomplishment of one dollar less work than last. The season just passed has been unusually severe, but the first days of thawing weather have brought clients to the offices as usual, and the offices generally have a more busy look than has been observed for the past four months.

The principal work reported by a Chicago architect, is the designing and construction of an office building for the North-Western Insurance Company, of Milwaukee, by architect S. S. Beman. The site is that formerly occupied by the old Newhall House, which burned so disastrously two years ago. It will probably be built of granite, six stories in height, and the investment will reach about \$500,000.

The burning of the Grannis Block, a six-story and basement office building, has occasioned more comment than any similar event in years. The building, though of timber construction, was so well built as to be supposed fireproof, and the sentiment in favor of fireproofing has set so strong that it is doubtful if in the future any office buildings will be constructed otherwise. This should be carefully watched by the citizens' committee, and if not a sufficient warning to owners who wish to build cheaply at the expense of the lives of their tenants, they should see that a law compelling the fireproofing of buildings of certain classes should be passed. This law should apply not only to office buildings but all factories and apartment houses. Another point in the construction of buildings that must be abandoned—and it is found in the designs of all architects—is the placing of wooden stairs around open elevator shafts. In the Grannis Block fire, the architect who planned the building had a forcible example of the "disadvantage" of this system as he escaped down the burning stairway. The stairs should be of iron and fireproofed, and the elevator shaft should be of fireproof material and open at the top, not among a mass of wooden joists and rafters, but like a chimney above the roof, and all doors should be of iron and close automatically.

Architects Burnham & Root, who occupied one-half of the top story of the Grannis building, lost the entire contents of their offices, with the exception of the plans that were immediately under contract, and these were in the vault. A large amount of water-

color perspectives adorned their private office and were saved by a fortunate circumstance. J. W. Root, having read a paper upon architecture before the society of the fine arts, used a part of this collection as illustrations, and they had not been returned. The firm have leased and will presently occupy the south and east half of the seventh floor of the Montauk Block.

The time when the city should be thoroughly cleaned will come with the disappearance of the ice and snow, and up to this date no special provision has been made, though the almost certainty of a visit from cholera this season should make the authorities, and particularly the health department, unusually vigilant. The \$15,000 recently appropriated for street cleaning will not even remove the snow, the entire sum being expended in opening a way for the escape of the melting snow piles. Even if the sum appropriated were much larger the sanitary aspect would remain much the same, as the street department has nothing to do with the alleys, and they, with the accumulated garbage of a long winter, will probably be untouched, reeking and smelling until the first symptoms of the dread disease is reported from New York, and by the time it has reached here cleaning will commence, and the stirred up disease-breeding masses will only add to the fatality. The city officer who says to himself that "this is only a cholera scare, and if it does come I can go to Wisconsin or some other place," will be responsible for the deaths his negligence at this time will make inevitable.

The interior of the Exposition Building, under the active direction of Architects Adler & Sullivan, is fast nearing completion for the opera festival.

At a recent meeting of the board of directors of the Builders' and Traders' Exchange, it was unanimously agreed upon to present annual tickets of admission to such architects as would apply for same, and are acceptable to the committee on membership.

It was also resolved, as the sense of the board of directors, that an exhibit of building materials and appliances, in connection with the exchange, should be established, and that the committee on rooms report plans at its earliest convenience for the establishment of such an exhibit in the building now occupied by the exchange.

This move toward the establishment of an exhibit is at the earnest request of a great many of the leading members of the exchange, who are anxious to have an exhibit in connection with the exchange, and it is stated that the whole second floor of the building now occupied by the exchange, can be secured for the purpose, the abundant wall space in the many small rooms comprising the floor being regarded as an advantage. Electric light companies can be counted on not only as exhibitors, but to make the place additionally light, and charges for space will be very moderate.

The responses the secretary has already received, and requests for space from leading material firms, both among members and those who have not yet joined, shows the general demand for the exhibition of building material where the builders meet daily to transact their business, and the issuing of cards of admission to the floor of the exchange to architects, are moves in the right direction.

As was prophesied in these columns several months ago in regard to the supposed surplus of office room in the neighborhood of the new board of trade, the indications are that the offices ready May 1 will not be sufficient to meet the demand. Out of the 800 odd rooms to be ready at that time, between 300 and 400 are already secured by tenants, and the regular renting season has not fairly commenced. There may be some vacant offices, but it will hardly be in the new office buildings.

There has been considerable discussion of the gas question of late, the coal gas companies asserting that the quality produced by the water gas company is unfit for use. The fact seems to be that the works of the new company, which a year ago commenced supplying their product in large quantities, to the satisfaction of everybody, giving a clearer, better gas light than Chicago had before known, has had trouble to supply sufficient to meet the demand, and that some bad gas has been the result, but this only for a short time.

This, with an unproved assertion, that the gas clogs the pipes and burners, even under the most favorable circumstances, is all there is to be said against water gas. The city of Pullman has been lighted by this gas for the past four years, and such charges have never to our knowledge been made against it there, and here, where the general quality is acknowledged to be better than that formerly supplied by the old companies, at a less cost, the production of bad gas for a few weeks should be forgiven, as to them alone belongs the credit of the general reduction in price, the coal gas formerly produced being for many years, notoriously bad.

A bill for the appointing of gas inspectors has been introduced in the state legislature, by Representative H. S. Boutell. Freed from one or two objectionable features, it should be passed. All the general public know about the amount of gas they consume, is what their gas bill shows, but the houseowner has reason to think something amiss, when, after an unusually light month, he asks the man who examines his meter the amount of gas burned, and is told 2,100 feet, and the bill comes in 3,100, one peculiar feature being the surprising similarity of the amount with that of the month before.

Architects Wheelock & Clay report: For Henry Simon, two-story and cellar pressed brick dwelling, 25 by 68 feet, stone trimmings, cost \$7,000. Building to be built on West Congress street, near Ashland avenue; Wm. Zuelsdorff Mason, contractor. Have designed two dwellings for A. H. Loudon, to be built on Groveland avenue, and to cost \$10,000.

Architects Edbrooke & Burnham report: For John G. Chick, at Rockford, Ill., two-story and attic frame, with brick basement, 45 by 56 feet, cost \$12,000; projected. For C. W. Pierce, two-story and attic frame, with brick basement, 28 by 58 feet, cost \$5,000; under way; H. J. Hynes, builder. For J. W. Brooks, two three-story and attic brick store and flat buildings, 40 by 70 feet; under way. For J. M. Larimer, at Evanston, Ill., two-story and attic frame, with brick basement, 38 by 53 feet, cost \$6,000; under way; J. C. Conner, builder. For F. W. Campbell, three two-story and attic brick buildings, 50 by 59 feet; under way. For J. L. Campbell, eight two-story brick buildings, 168 by 36 feet; under way. For Campbell Bros. & Co., twenty-four two-story and cellar houses, twelve brick and twelve stone fronts, 46 by 36 feet, cost \$72,000; under way. For Sam. Blaisdell, three-story store and flats, 24 by 65 feet, cost \$6,000; projected. For Mrs. Sarah Johnson, two-story and attic frame, with stone basement, 40 by 50 feet, cost \$6,500; projected.

Architect M. L. Beers reports: For Mrs. E. F. Bayley, two-story and attic and cellar frame, 45 by 47 feet, colonial style, finished in clear pine, cost \$6,300; under way. For Mrs. Annette Van Uxen, two-story dwelling, same as above, 33 by 49 feet, cost about \$6,000; under way. For Mr. A. C. Dow, two-story attic and cellar dwelling, 37 by 39 feet; first story, brick veneer, second story and roof of slate, interior finished in cherry and oak, cost \$7,500; under way.

Architect L. B. Dixon reports: For Mr. Gerhard Freeman, corner of Michigan avenue and Twenty-ninth street, two-story, basement and mansard, dwelling, 51 by 80 feet, brownstone front and side, with slate mansard; now being figured; bids to be open March 12; first and second stories finished in oak, steam, heat, etc. Also barn, in rear of house, 30 by 52 feet, heated with furnace; being figured. For Mr. Clifford Williams, two-story brick, with stone trimmings, 25 by 60 feet, cost \$5,000; will commence in April. For Mr. Chas. F. Boal, five-story and basement pressed brick building, 40 by 100 feet, cost \$15,000; commenced; Angus & Goodell, builders. For Mr. Henry Corinth, three-story and basement stores and flats, 40 by 85 feet, brick, with stone trimmings, side bay over stores, cost \$17,000; commenced; James Phillips, builder.

Architect J. H. Huber reports: For Mr. J. Devlin, plans for two-story store and flats, 25 by 70 feet, corner of Archer avenue and Quinn street, pressed brick and plate glass front, cost \$6,000.

Architect O. J. Pierce reports: For A. M. Parker, two-story and mansard house, 22 by 46 feet, to be built of Peerless pressed brick, brownstone and terra-cotta, red slate roof, cost \$8,000.

Architect J. Addison: For Mrs. Anna B. Peck, store and flats, 21 by 100 feet, corner of State street and Chicago avenue, three stories high, pressed brick front, with terra-cotta trimmings, cost \$14,000.

Architects Schaub & Berlin report: For Joseph Sokup, at the corner of Milwaukee and North avenues, double building, 50 by 100 feet, cost \$20,000.

Architect W. G. Barfield has plans for two flats for W. J. Leadbeater, on Jackson street, near Center avenue, to be built of red sandstone, Anderson pressed brick and terra-cotta, cost \$15,000.

Architect Geo. S. Spohr: For Geo. Kronenberger, on Bissell street, three-story pressed brick building, 24 by 94 feet, cost \$8,000. For Chas. Wondries, remodeling Bethany church into flats, cost \$4,500. For Mrs. E. Greene, two-story and attic and cellar dwelling, 30 by 45 feet, at Humboldt Park, cost \$1,800. For James Sullivan, addition to brick building, cost \$2,500. For M. Kaufman, brick building on Huribut street. Also a flat building, 25 by 60 feet, three stories and cellar, pressed brick front, cost \$5,500.

Architect H. D. Deam reports: For D. W. Richardson, at Lake View, two-story and attic double frame dwelling, 36 by 42 feet, cost about \$5,000. For W. C. Nelson, at South Park, four two-story attic and cellar brick dwellings, 20 by 52 feet each, pressed brick and plate glass fronts, cost about \$17,000.

Architect W. L. Carroll reports: Plans for six-story store and flats, 30 by 60 feet, for Mr. McNulty, brick, with cutstone trimmings, cost about \$5,500. For Mr. W. T. Lockwood, at La Grange, Ill., frame cottage, 22 by 42 feet, cost \$1,500. For Mr. Albert Slider, 3243 Vernon avenue, two-story brick residence, with stone front, 19 by 60 feet, cost about \$3,500.

Architects Wilson & Moody report: For Mr. W. H. Thomas, four three-story apartment buildings, 100 by 75 feet, corner Randolph and Morgan streets, cost \$35,000. For Mr. C. Swigart, three-story store building, 25 by 60 feet, on West Lake street, cost \$6,000. For Mr. Geo. L. Thatcher, two-story cottage, 30 by 48 feet, at River Forest, cost \$4,000.

Architect Chas. F. Haskell reports: For Mr. F. H. Dickey, two-story and basement brick residence, 22 by 46 feet, cost \$4,500; projected; contract not let. For Mr. D. B. Hutchinson, two two-story and basement residences, 20 by 42 feet, Indiana pressed brick, with stone trimmings, cost \$2,500 each; projected; contract not let. For J. T. Stevens & Co., at Lake View, two one-story and basement frame cottages, 20 by 40 feet, cost \$1,200 each; projected; contract not let.

Architect August Bessler reports: For Jacob Beter, two-story and basement store building, 22 by 64 feet, on Ogden avenue near Twelfth street, cost \$4,500; contract let; J. G. Lobstein builder. For Mr. G. Hurter, two-story and basement dwelling, 22 by 60 feet, on Ambrose near Robey street, cost \$4,000; contract let; Probst Bros. builders. For John Schumacher, two-story and basement brick dwelling, 22 by 60 feet, on Thirtieth place near Robey street, cost \$3,900; contract not let.

Architect Fred. Keltenich reports: For J. Q. Griffith, nine three-story and cellar buildings, 180 by 44 feet, Indiana pressed brick fronts; under way; Fox & Hines mason contractors. For Mr. Assay, six three-story and cellar flats, Indiana pressed brick, 120 by 50 feet, cost \$21,000; under way; George Edwards builder. For J. O. Meara, row of seven flats, 150 by 48 feet, Adams street and Hoyne avenue, Philadelphia pressed brick fronts, cost \$31,000; contract not let. For Chris Gownerman, at 67 Hurlbut street, three-story and basement and attic building, 25 by 80 feet front, of St. Louis pressed brick and fancy cutstone trimmings, cost \$8,500; contract not let. For Theo. Theis, at 173 Johnson street, two-story and attic tenement house, 22 by 64 feet, front of Indiana pressed brick with cutstone trimmings, slate roof, cost \$3,850; under way; R. Lavin mason, Des Jardens carpenter. For Louis Jaeger, Johnson and Eighteenth streets, three-story and basement brick and stone store building, 24 by 75 feet, cost \$7,200; contract not let. For R. Brandt, four-story and basement brick building, 26 by 71 feet, at 93 North Jefferson street, and fourth story addition to adjoining buildings, the whole to be used as a hotel, cost \$8,500; contract not let. For George Edwards, five three-story and basement brick stores and flats, 120 by 53 feet, cost \$17,500; George Edwards builder. For P. Murnburg, three-story and cellar flat building, 24 by 50 feet, at 344 Maxwell street, Lake Superior brownstone front, galvanized iron cornice with iron crestings; projected; contract not let. For Mr. M. Fleming, three-story and basement store and flats, 25 by 80 feet, at 308 Blue Island avenue, fronts of St. Louis pressed brick and cutstone trimmings, galvanized iron cornice, cost \$6,850; under way; F. Brown builder. For Frank Plischke, three-story and basement store and flats, 24 by 76 feet, at No. 99 Blue Island avenue, St. Louis pressed brick front, galvanized iron cornice, cost \$7,400; under way. For Charles Feigenhagen, one-story cottage, 22 by 62 feet, Indiana pressed brick front, cost \$1,800; under way. For G. Viehweg, three-story brick factory building, 50 by 80 feet, and addition, 24 by 60 feet, at 266 and 268 South Clinton street, cost \$11,500; contract let, but work not commenced; Oscar Tumelson mason, Jas. A. Kaehney carpenter; Aetna Iron Works contractors for iron work. For D. Bakenhus and A. Mueseler, four-story and basement brick carriage factory, 50 by 95 feet, at 95 and 97 East Indiana street, Indiana pressed brick front, elevator 8 by 18 feet, cost \$12,000; Fox & Hinds, mason contractors; other contracts not let; building must be finished by May 1. For Andrew Waechter, five brick cottages, 21 by 62 feet, two stories and attic, cost not estimated; contracts not let. For Ch. Roby, three-story store and flats, Indiana pressed brick front with cutstone trimmings, 25 by 100 feet, corner of Hubbard and Elizabeth streets, cost not estimated; contracts not let. For Garner & Avery, on the corner of West Van Buren street and Center avenue, six store and flat buildings, 120 by 60 feet, and two flat buildings, 40 by 48 feet, stores, buildings three stories and basement, St. Louis pressed brick front, flats on Center avenue, cellar and three stories, pressed brick front with stone trimmings, cost not estimated; contracts not let. For Frank Waterman, frame dwelling, 22 by 48 feet, to be erected at Englewood, two stories, cellar, and attic, cost \$2,400; under way.

Cincinnati, O.—Architect James W. McLaughlin has made plans for a large office building, to cost about \$200,000, on Fifth street, for the Este estate.

Architect Theodore A. Richter has just completed plans for a \$25,000 building, to be called the Kirby Flats. It will be five stories, with pressed brick front. Mentel & Co. have the contract, at \$13,000, for the plumbing and gas fitting; S. A. Shafer & Co., brickwork, \$8,000, and H. W. Brockman the carpentry, at \$8,000.

Cleveland, O.—A permit has been issued to L. C. Beardsley & Co. to erect a brick factory building on Michigan, near Seneca street, cost \$30,000; L. Doulter, builder.

Columbus, O.—The county commissioners have approved the bonds of Lewis Fink for painting and glazing, and that of Rouser & Co., of Dayton, for carpenter work and hardware on the new court-house. The contract for the cutstone and brickwork is still in doubt, as the lowest bidder's bond was rejected by the commissioners. Isaac Potts was the lowest bidder on gas piping.

The building for the last year surpassed that of any previous year in the history of this city. The total estimated cost of new structures, as taken from the record of building permits at the city clerk's office, is \$1,244,038, there being 1,096 permits issued. In 1883 1,052 permits were granted, the total estimated cost being \$1,080,162; in 1882 there were 827 issued, the buildings costing \$837,880; in 1881 there were 482 issued, the total estimated cost being \$647,857, and in 1880 there were 324 given, the cost being \$396,704. The buildings erected the past year were of a more substantial nature than during any previous year, many being on High street, in the shape of four, five and six-story business blocks, adding greatly to the appearance of that important thoroughfare, and increasing the value of real estate generally. This season has been notably one of church building, as the following new places of worship with their approximate cost will show: Broad street M. E. church, probably the finest, about \$75,000; Wesley chapel, M. E., about \$65,000; Third Avenue M. E., about \$50,000; Hildreth Baptist chapel, about \$8,000; North Baptist, about the same amount; Evangelical Lutheran church, on East Main street, fairly started, about \$5,000; and the Mt. Vernon Avenue M. E. church, costing about \$3,000.

Among the new business blocks lately erected are the following: Louis and L. P. Hoster, a four-story, 187 by 52 feet, stone and brick structure on High street, west side, between Broad and Long, cost about \$40,000; G. H. Maetzel, architect. Green, Joyce & Co., six-story, 187 by 62 feet, iron and brick building, with stone trimmings and glass front and side, corner of High and Chestnut, cost about \$100,000; J. T. Harris, architect. Hinman & Beatty, four-story, 187 by 40 feet, stone and brick business block on the east side of High street, between Long and Gay, cost \$20,000; J. T. Harris, architect. H. Mithoff, three-story, 45 by 62 feet, brick building on South High street, to cost \$15,000; Kremer & Hart, architects. Rev. Jos. Jessing, of St. Joseph's orphanage, three-story, 100 by 40 feet, brick building on East Main street, to cost \$10,000. John M. Pugh, three-story, 103 by 84 feet, brick dwelling on North Third street, to cost \$40,000. Souder & Bright, four-story, 127 by 41 feet, brick and iron business block on North High street, near Chestnut, to cost \$20,000; Terrell & Morris, architects. W. K. Rodgers, trustee, four-story, 80 by 80 feet, brick business block on West Spring street, between High and Front, to cost \$15,000. The large new hotel building, on the corner of Rich and High streets, to cost \$40,000.

Of the new dwellings erected during the past year the following are among the costliest: Susan Dunn, three-story brick, 74 by 44 feet, on East Town street, cost \$15,000. Hon. A. G. Thurman, three-story, 74 by 55 feet, brick, on the corner of Rich and Washington avenue, to cost \$15,000. The Joyce mansion on East Broad street, cost \$25,000. The Dobbie, Platt and Wilcox houses on the same street, each cost nearly \$25,000. The Sells house on North High street, cost \$20,000.

Denver, Colo.—D. Fletcher, five-room, two-story brick stores, cost \$7,000; architect, F. Hall; builder, W. La Due. D. H. Moffat, brick dwelling, cost \$45,000; architect, H. H. Hally; builder, W. J. Kirsey.

Des Moines, Ia.—Architect C. H. Lee reports: For Mr. Fred Strong, at Winterset, Ia., two-story frame dwelling, seven rooms, cost \$2,700; contract not let. For Mrs. Culver, two-story frame dwelling, eight rooms, cost \$2,600; contract not let. For W. Wittner, two-story and basement brick tenement, 66 by 32 feet, cost \$9,000.

Detroit, Mich.—The Detroit Masons' and Builders' Exchange has elected the following officers for the ensuing year: President, A. Chapoton; vice-president, Ira Topping; secretary, M. Gholl, Jr.; treasurer, P. Dee; directors, A. Albrecht, Thomas Fairbairn, James Cobb, and W. J. Stapleton.

Architects Watkins & Arnold: For J. W. Thompson, brick dwelling, cost \$6,500; John Finn, builder.

Considerable building talked of and general feeling among mechanics that the season will be a good one, very little work has materialized as yet, however. Prices of labor are very unsettled.

Architect W. G. Malcomson reports: For the Franciscan Brotherhood, at Hartford, Kan., church building, 40 by 80 feet, brick, with stone trimmings, cost \$6,000;

under way. For James Hogan, two-story frame dwelling, 25 by 60 feet, colonial style, cost \$3,500; under way; Hargus & Lange, builders. For Frank Walsh, frame cottage, 23 by 39 feet, cost \$1,200; under way; Thos. Moore, builder. For James McNamara, Queen Anne cottage, 23 by 39 feet, cost \$1,500; under way; Philip Letourman, builder. For Jas. B. McKay, frame dwelling, 26 by 66 feet, colonial style, cost \$4,500; under way; G. Treacy, builder. For Alfred Bunclark, brick dwelling, 25 by 50 feet; cost \$4,000; under way; Francis Vivian, builder.

Architects Julius Hess & Co. have prepared plans for a fine block of three-story buildings for Perrien & Bro. They consist of four stores and a warehouse, of brick, with stone trimmings, the stores to have plate-glass fronts. A basement runs under all. The second and third floors will be fitted up for dwelling purposes. The entire cost is estimated at \$25,000.

Architect A. C. Varney has prepared plans for several fine residences, to be commenced in the spring. T. H. Roberts' house, on Garfield avenue, will be of brick and stone, in the Queen Anne style; cost \$8,000. R. W. Allen, a three-story brick house on Miami avenue, cost \$7,000. Frederick Buhl, country residence, six miles out on Woodward avenue, two stories, of wood, with veranda all around, cost \$4,000. J. Desoteil, a handsome residence on Lafayette street.

The following permits have been issued: Emil Heineman, block of six four-story, and basement store buildings, stone, brick and iron construction, 62 by 150 by 64 feet, cost \$45,000. P. McDonald, three-story and mansard double brick dwelling, with sandstone trimmings, cost \$8,000. Henry T. Loomis, two-story brick dwelling, slate roof, cost \$4,500. David Wallace, brick addition to residence, cost \$4,500. C. C. Hodges, two-story brick dwelling, cost \$7,200. H. J. Tracy, two-story frame dwelling, cost \$4,200. Fred. Albrecht, two-story frame church, cost \$3,500. Delbridge, Brooks & Fisher, brick planing mill, cost \$6,000. J. E. & Geo. H. Scripps, brick, lead and color works, cost \$3,500.

The Detroit Fishing and Hunting Association will erect on Star Island, Lake St. Claire, a three-story club house, 175 by 40 feet, with two wings, 60 by 30 feet, cost \$14,000.

Dubuque, Ia.—Architect F. D. Hyde reports: For M. M. Walker, two-story frame residence, cost \$8,000; foundation in. For Wm. Hintranger, two-story double brick residence, 32 by 45 feet, cost \$3,000. For A. J. Parker, two-story brick residence, 22 by 66 feet, cost \$5,000; contracted for.

Duluth, Minn.—The board of trade on Tuesday, January 26, chose a permanent committee to take charge of the erection of the new building. Subscriptions were started Friday afternoon on change for the new building, and \$26,000 of the \$70,000 required stock taken before adjournment. Hooker, Crittenden & Co. subscribed \$10,000; George Spencer & Co., \$5,000; Lake Superior Elevator Company, \$3,000; Owen Furgusson & Co., \$2,500; A. J. Sawyer, \$2,500; Union Improvement & Elevator Company, \$2,000; C. H. Graves & Co., \$1,000.

Eau Claire, Wis.—Architect Radcliff, of St. Paul, has been selected by Rev. Father Collins, of St. Patrick's church, to execute the plans for the new edifice to be erected the coming season.

Fergus Falls, Minn.—Plans for the new county jail are now being drawn by St. Paul and Minneapolis architects, and will shortly be submitted to the county. The board of education met for the purpose of taking action on the new second ward school building. It is presumed, though the matter is not yet decided, that a four-room building will be erected at a cost of \$15,000.

Frankfort, Ind.—Architect J. W. Hammond reports: Preparing plans for Methodist Episcopal church at Knightstown, Ind., one-story, with gallery, brick, stone trimmings, slate roof, cost \$10,000.

Frankfort, Ky.—The following is a report of the new buildings erected in this city during the year 1884: Brick residences, one; cost \$4,000. Frame residences, seventeen; cost \$10,650. Brick business houses, 5; cost \$43,000. Brick and stone business houses, two; cost \$9,000. Miscellaneous buildings, twenty-five.

Fredericktown, Mo.—Outlook fair.

Architect R. Albert reports: For Frank Schulte, two-story brick and iron building, 31 by 60 feet, cost \$2,500; under way. For B. B. Cahoun, two-story brick building, 36 by 40 feet, cost \$5,000; projected. For Jos. Schulte, two-story frame dwelling, 16 by 30 and 16 by 20 feet, cost \$1,500. For J. W. Dunnaway & Co., one-story frame skating rink, 45 by 125 feet, cost \$2,500; projected.

St. Wayne, Ind.—A committee is now taking subscriptions from the leading citizens, to the amount of \$25,000, toward the erection of the new Mayor House, which it is the intention of Mr. Nix, of Chicago, to build, at a cost of \$150,000; it is quite probable work will begin in early spring.

Hamburg, Ia.—The Hamburg plow factory burned February 20; loss, \$40,000; insurance, \$20,000.

Hannibal, Mo.—Outlook for spring is good. Architect Jas. Oliver Hogg reports: For Hannibal school board, three-story, twelve room, brick, 62 by 78 feet, galvanized iron trimmings, cost \$15,000. Plans under way. Also two school buildings, two stories, eight rooms each, brick with stone trimmings, shingle roof, wood cornice, 62 by 76 feet, cost \$10,000 each; plans under way. For Henry Severs, two-story frame cottages, 28 by 49 feet, cost \$1,500; plans finished. For Dr. James S. Howell, remodeling brick house and adding second story, frame, cost \$1,400. Hogg & Sons, builders.

Hastings, Minn.—Arrangements have been made and contracts signed for the building of a large pork-packing establishment on the river front. It will be commenced early this spring, and be ready for use next fall.

Howard City, Mich.—The Union school building was destroyed by fire; loss, \$25,000; a defective flue was the cause of trouble.

Huron, Dak.—A fire, February 21, destroyed a livery stable, opera-house, rink and warehouse; loss, \$15,000.

Indianapolis, Ind.—Architect C. G. Mueller: For Mr. C. Maus, brick malt-house, corner New York and Agnes streets, cost \$20,000.

Jackson, Tenn.—The Tennessee legislature, on January 29, passed a bill to spend \$85,000 in building an insane asylum at Jackson.

Jerseyville, Ill.—Architect Wm. Embley reports: For Jersey county jail and residence building, 48 by 60 feet, two stories, brick and stone construction, steel and iron cells, slate roof, cost \$15,500; under way; H. C. Leak, builder. For John Wiley, two-story brick and stone storehouse, 25 by 85 feet, cost \$3,500; under way; Howell Bros., builders. For Baptist society at Palmyra, Ill., frame church building, 28 by 50 feet, cost \$2,500; just completed. Have prepared sketches for a hotel for W. Leigh & Co., brick and stone building, 86 by 96 feet, three stories high, cost about \$25,000. Also Catholic church at Kane, Ill., frame building, 28 by 50 feet, cost \$2,300. Four store buildings are projected, and will be erected this spring, to replace the ones recently destroyed by fire.

Kalamazoo, Mich.—In our report in February issue, of amount of building done in Kalamazoo during 1884, the total should be 466,750 instead of \$366,750.

Kansas City, Mo.—The plans for the new building to be erected on the corner of Sixth and Main streets, by Mr. Lobenstein, are in the hands of the architect. It is to be 50 by 142 feet and six-story in height. It will be of enriched terra-cotta, pressed and glazed brick, and will cost about \$75,000. Dr. Flanders' eight two-story and basement residences, 601-615 East Sixteenth street; cost \$12,000. J. M. Jones, a \$4,000 brick house at 1405 Locust street. Mrs. Catherine Rogers, two-story brick house, at 1306 Baltimore avenue; to cost \$4,000.

Indications are highly flattering in spite of the unprecedented steady cold weather. In the projection of buildings the demand for good architectural service is plainly on a healthy increase. A grand year is anticipated, especially in pretentious store buildings, etc. D. C. Strawbridge, a \$5,500 brick and stone block for residences. J. E. Raber, \$3,500 brick and stone residence. Mr. G. Nelson intends building a five-story brick building at the southeast corner of Missouri avenue and Main street.

Beside the above, permits have been taken out during January and February, as follows: Morrison Packing Co., brick and stone packing house, cost \$32,000; under way. Bishop & Christie, glass, tile, wood, etc., interior improvements, cost \$12,000; under way. Butler & Tribble, row three-story brick and stone residences, cost \$12,000; under way. A. E. Hasbrook, two-story brick and stone residence, cost \$4,000; under way. A. M. Sills, two-story brick and stone residence, cost \$4,000; under way. Wm. McCaffrey, two-story brick and stone residence, cost \$3,000; under way. Wm. Weston, one-story brick and iron office, cost \$3,000; under way. Permits for frame buildings during January and February, \$39,232. Total permits for brick residences (same time), \$7,635. Permits for additions and repairs (same time), \$5,435. Total approximate cost of permits issued during January and February, \$164,302.

Keokuk, Ia.—Architect I. C. Wykoff reports: For Joseph Auwerden, brick dwelling, 27 by 37 feet, cost \$3,500; under way. W. H. Nichols, builder. For John Spear, brick cottage, 24 by 38 feet, cost \$2,000; under way.

La Harpe, Ill.—Architect W. L. Ross reports: For Mr. Mason, two-story frame dwelling, 24 by 24 feet, cost above foundation \$1,800; Row & McAllister, builders. For Mr. J. Huston, of Blandinsville, Ill., two-story frame residence, 34 by 46 feet, Queen Anne style, cost above foundation \$4,000; plans under way.

La Moure, Wis.—Two fine brick blocks have just been completed, a commodious school house and a large number of substantial residences. There is considerable new work now being planned, which will be commenced in the spring.

Lausling, Mich.—There are several store buildings projected for spring, for which no architect is engaged as yet.

Architect I. Gillett reports: For John Schlee, two-story brick dwelling, 35 by 58 feet, cost \$5,000; plans under way. For Mr. J. Leadley, brick store building, 22 by 80 feet, cost \$4,000; plans under way.

Laramie, Wyo.—Mr. W. A. McKenzie, contractor and builder, reports the building outlook better than ever before known: rolling mills that have been shut down for nine months started up on February 23. The reduction works and foundry are soon to be under way, and prospects are exceedingly bright. Dimmit & Co. have just finished roller skating rink, 40 by 122 feet, cost \$2,000; Cook & Callaghan, builders. Reduction Works Co., one-story and basement brick and stone building, 50 by 150 feet, cost about \$10,000; contract not let. Ora Haley, remodeling brick and frame residence, and new two-story frame barn, 20 by 50 feet, cost of improvement \$9,200. Edward Vinson, banker, two-story brick residence, with all modern improvements, cost \$10,000; contract not let. Four buildings, aggregating \$5,200.

Leavenworth, Kan.—Architects Carr & Grodavent report: For H. D. Cole, brick residence, cost \$18,000; inclosed. For Alex. Caldwell, alterations to residence, cost \$12,000; nearly completed. For Great Western Stove Co., brick warehouse, cost \$18,000; preparing plans. For Frank O'Donnell, block of five brick stores, cost \$25,000; masonry let to G. W. Cole. For same, block of two stores, cost \$10,000; masonry let to G. W. Cole. For O. B. Taylor, brick residence, cost \$13,000; plans completed. For Peter Berry, store building, cost \$23,000; inclosed; Wm. Schroeder, builder. For S. J. Munson, frame dwelling, cost \$3,500; plans completed. For T. J. Weed, alterations to residence, cost \$2,000; plans completed.

Architect Wells: For John Joerger, frame dwelling, cost \$3,500; contemplated. For S. F. Alwood, frame dwelling, cost \$3,500; contemplated. For B. Flesher, frame dwelling, cost \$4,000; contemplated.

Architect E. T. Carr: For J. H. Dow, at Olanthe, Kan., frame dwelling, cost \$9,000.

Logansport, Ind.—Outlook good.

Architect J. E. Crain reports: For F. M. Harwood, two-story brick, trimmed with Wabash, Ind. white brick, slate roof, 32 by 51 feet, cost \$3,200; under way; Baines & Medland, builders. For Broadway Rink Co., one-story frame, 65 by 140 feet, cost \$4,000; under way; J. E. Crain, superintendent. For H. S. Tousley, brick building, cost \$3,500; projected. Brick and stone oil tank, 100 by 60 feet, cost \$5,000; Baines & Medland, builders.

Marshalltown, Ia.—Prospect for spring business is much better than last year, although most of the work is of inexpensive character, and no architect is employed. Architect W. A. Hawley reports: For Wm. Utz, one and one-half story frame, 35 by 32 feet, cost \$1,500; plans prepared. For Isaac Stoner, at Toledo, Ia., two-story frame dwelling, 37 by 41 feet, cost \$2,000; inclosed; Isaac Stoner, builder. For Dr. W. A. Hawley, at Syracuse, N. Y., additions to one and one-half story frame, 32 by 19 feet, cost \$1,000; projected. Also two-story double brick store building, and several buildings projected for spring.

McMinnville, Ore.—Architect J. C. Cooper reports: For W. J. Garrison, two-story brick, 70 by 72 feet, first story for bank, store and postoffice, second story for offices and theater, cost \$10,000; under way; J. C. Cooper, builder.

Mendota, Ill.—The passenger house of the Union depot, baggage and telegraph room burned, with the contents, February 20. The loss is estimated at \$50,000.

Milwaukee, Wis.—In recent interviews the architects have expressed the belief that there will be as much, if not more building done this year than last.

Among the permits recently issued, are the following: Northwestern Mutual Life Insurance Co., a five-story brick and stone office building, corner Michigan street and Broadway, cost \$500,000; Northwestern Panorama Co., frame building, covered with sheet iron, cost \$16,000. O. H. Waldo estate, four-story brick building, Chicago and East Water streets, cost \$11,000. August Frank, three cottages, cost \$9,000; C. A. Gombert, architect.

Minneapolis, Minn.—The anticipated boom in the vicinity of the Chamber of Commerce building has according to the *Pioneer Press*, apparently commenced. Two or three parties have already announced their intention of making extensive improvements this season, and others are known to have the matter under advisement. W. H. Eustis is planning to put a \$50,000 brick office building, five stories high. H. E. Fletcher, is also talking of building, and it is possible that they may combine their forces in one big building. A. F. Kenyon contemplates improving his property on Third street, but has not decided definitely about it yet. Meantime the proposal to extend the Chamber of Commerce building up to Third street, giving it a full block frontage, is being again put forward and seriously considered.

W. W. Huntington & Co. have taken out a building permit for the erection of a saw mill to cost, with all its equipments, upward of \$40,000. The location is on the river bank, between Thirty-second and Thirty-third avenues north. Emil Vanderhorck will build a four-story brick veneer tenement at the corner of University avenue and Fourteenth avenue southeast, just opposite the university grounds. George G. Jacoby has leased of Michael Nash the two-story brick store at No. 27 Bridge square, and is spending \$7,000 in remodeling the building. The owners of the Window block have plans under consideration for the extension of the block, doubling its frontage on Washington avenue and duplicating it in general style. The plans include a central tower, and the effect of the whole will be exceedingly imposing. Negotiations over the site are to be consummated before a final decision can be reached. Rumors are rife of a syndicate block well up on Nicollet avenue, with stores on the ground floor and flat above, but the parties refuse to give any details. J. W. Bigley will build a four-story brick block on Fourth street, between First and Second avenues south.

A satisfactory settlement has been arrived at between the owners of the Academy of Music building recently destroyed by fire, and the insurance companies by which the owners, Mr. Lowry and the Messrs. Herrick Bros. will erect a handsome structure to cost not less than \$100,000. Negotiations are pending for the purchase of the property adjoining on Hennepin avenue and if a settlement is arrived at a much larger building than the old Academy will occupy the site.

Architect C. F. Struck reports: For John Thompson and others, four-story and basement, brick, stone, and terra-cotta, 66 by 100 feet, cost \$35,000; preparing plans; not contracted. For M. Falk Gjertsen, two-story frame and brick veneer, with stone trimmings, 32 by 56 feet, cost \$3,500; excavating under way; G. W. Brown & Co., builders. For Oden Moe, two-story frame, 30 by 50 feet, cost \$2,200; excavating under way; G. Bolstad, builder.

An architect who fails to give his name reports: For J. E. Bell, pressed brick residence, 60 by 72 feet, Queen Anne, interior finished mahogany, walnut, cherry, and quarter sawed oak, cost \$28,000; under way; L. C. Bisbee, builder. For Donald Kennedy, pressed brick and brownstone residence, 35 by 60 feet, Elizabethan style, interior finished in hardwood, cost \$28,000; projected. For Z. T. Mullin, frame residence, 36 by 58 feet, cost \$6,000; projected. For Mr. Bardwell, frame residence, cost \$4,000; under way. For Wyman Elliott, pressed brick residence, 49 by 66 feet, cost \$15,000; projected. Excelsior Academy, brick, cost \$7,000; projected.

Architect W. C. Whitney is at work on the plans for a four-story brick block, 66 by 100 feet, which is to be erected in the spring by A. Howard Hinkle, of Cincinnati, to be located on Second street between Second and Third avenues south. The building will be solidly and substantially built of brick and iron, and will cost about \$30,000.

Architects Long & Kees are preparing plans for a business block to be erected by Mr. J. L. Pomeroy, corner of Second street and First avenue south, which will be 25 by 115 feet, four stories high. The front will be of Kasota stone and the other walls of brick. The first floor will be for stores and the upper floors for offices.

Architect James C. Plant is preparing plans for a handsome residence at the corner of Portland avenue and Twenty-seventh street, to be commenced in the spring.

Architect I. W. Kelley has just completed plans for a residence for H. B. Moore, on Eighteenth street, near Fifth avenue south.

J. E. Woodford, Esq., is to build a \$5,000 two-story flat at the corner of Nicollet avenue and Lake street. Col. J. E. Badger is to build an \$18,000 residence on Pleasant

avenue and Twenty-second street, the material to be chiefly brownstone; also a \$4,000 house on Grand avenue and Twenty-second street. H. H. Humphrey is to build a house, at a cost of \$3,500 on Three-and-a-half avenue south and Seventeenth street. The house is to be brick veneered.

Among the building permits issued recently are the following: W. H. Groff, 24-story twelve-room wooden dwelling, east side Second avenue, between Twentieth and Twenty-second streets south, \$6,000. Llewellyn Groff, two-story ten-room wooden dwelling, east side First avenue, between Twenty-fourth and Twenty-fifth streets south, \$3,000. C. M. Loring, alteration of first story and basement of wooden hotel building to brick, corner Washington avenue and Sixth avenue south, \$12,000.

Miscellaneous.—The Ohio legislature has before it bills to erect a town hall for Wellington township, Lorain county; to erect a town hall in Columbia township, Hamilton county; to authorize Ashland county to borrow \$30,000 for a jail and sheriff's house.

Mitchell, Dak.—The number of buildings erected and improvements made during the past year have not been quite so large as the preceding year, but have been such as add greatly to the substantial appearance and neatness of the city. The total expenditures for the year in this line was \$283,425.

Architect H. J. Bingham reports: For Henry, two two-story brick stores, 41 by 100 feet, cost \$10,000; to be commenced as soon as weather will permit. For M. E. University, stone, three stories, 80 by 107 feet, cost \$30,000; basement completed, work will be resumed as soon as weather will permit. For John H. Crow, one-story dwelling, cost \$700.

New Corporations.—The Citizens' Building and Loan Association of Belleville, Ill.; capital, \$500,000; incorporators, W. H. Powell, Robert Rogers, Edward Abend, Hugh W. Harrison, Charles W. Hahn, Jas. Waugh and James H. Smith.

Ainsworth Covering Company of Chicago; capital, \$200,000; incorporators, Wm. A. Gilbert, Francis B. Tobey, Loren P. Crane and Elam R. Paige.

The Western Library Association of Chicago; capital, \$100,000; incorporators, D. C. Levison, W. F. Sauer and G. F. Sauer.

The Henry and Coatsworth Company of Chicago; capital, \$200,000; incorporators, Geo. W. Henry, Jay H. Coatsworth and T. F. Sullivan.

The Cartwright Iron Company of Steubenville, O.; capital, \$50,000.

The Toledo, O., Post Company; capital, \$38,000.

The Ironton Furnace Company of Ironton, O.; capital, \$25,000.

The Harris Brass and Bronze Company of Chicago; capital, \$10,000; incorporators, Elijah T. Harris, C. E. Smith and F. L. Brooks.

An armory association is about to be formed in Fergus Falls, Minn., by Company F, with a capital stock of \$10,000. The object of the plan is that the company can purchase suitable grounds and erect an armory for their exclusive use.

The Chicago Electric Light Association; not for profit; directors, Aaron K. Stiles, Elmer A. Sperry, J. H. Reid and others.

New Ulm, Minn.—Architect J. Berndt reports: For Fritz Koehne, at Sleepy Eye, two-story brick store building, 25 by 60 feet, cost \$4,300; under way; M. O. builder. For W. Koch, two-story brick dwelling, 36 by 38 feet, cost \$2,400; under way.

Ossian, Ia.—Architect Elias G. Aurand reports: For Ole Thompson, two-story brick veneer dwelling, 29 by 43 feet, cost \$2,300, plans completed; contract not let. For Frantz Frantzen, two-story frame, stone basement, 20 by 24 feet, cost \$700; under way.

Richmond, Ind.—Outlook very favorable.

Architect Jno. A. Hasecoeter reports: For English Lutheran Congregation, one-story brick and stone church edifice, 24 by 60 feet, ten transepts, cost \$7,000; will be built in the spring. For Mr. John Bevers, two-story brick dwelling, cost \$3,000, contracted; Bartel & Co., builders. For J. H. Brockamp, at Brookville, Ind., two-story store and flats, 37 by 62 feet, cost \$4,500; contract not let. For Mr. B. Maage, brick residence, with stone trimmings and slate roof, cost \$6,000; contract not let.

San Francisco, Cal.—It is reported that Messrs. Flood and Mackay have decided to erect two business blocks on their lots at both the corners of Market and Fourth streets, each costing in the neighborhood of \$1,500,000. Work will be begun in the spring. —*San Francisco Chronicle*.

Seymour, Ind.—Architect Joseph Balsley reports: For John Jones, addition to hotel, 45 by 35 feet, cost \$3,000; projected. For J. W. Holmes, three-story dwelling, 18 by 40 and 18 by 24 feet, cost \$3,000; projected. A number of small dwellings, ranging from \$600 to \$2,500 are projected, and will probably be erected in the spring.

Sioux City, Ia.—Mr. Judd Pierce reports: For L. Wynn, two-story brick dwelling, 30 by 60 feet, terra-cotta trimmings and modern improvements, cost \$5,000; under way; Payett & Babue, builders. For Plymouth county, Ia., two-story alms house, 24 by 63 feet, cost \$3,500; projected. For T. C. Thompson, four frame dwellings, 16 by 40, cost \$900, each; projected. For B. Cohen, three frame dwellings, 20 by 32 feet, cost \$1,100, each; under way; Payett & Babue, builders. For A. J. Rederick, three-story brick store, 50 by 90 feet, cost \$11,000; projected. For C. Bruen, three-story brick store, 25 by 90 feet, cost \$6,000; projected. For Z. Schuele & Bro., three-story brick store, 25 by 90 feet, cost \$6,000; projected. For J. Lessenich, two-story brick hotel, 50 by 90 feet, cost \$12,000; projected.

Sioux Falls, Dak.—Architect A. D. Stebbins reports the outlook for new building improvements the coming year very promising. The new opera house will be the first to rear its walls with the opening of spring, and a large amount of other new work will follow. The season of 1884 closed with a record of about \$500,000 expended in building improvements, and there is a fair prospect, notwithstanding the depression in business circles, of a large business for 1885.

St. Paul, Minn.—Architects Bergmann & Fischer report: For Mr. C. Kastner, two-story brick-veneer dwelling, 22 by 32 feet, cost \$3,000; projected; Geeth & Bartels, builders. For H. Rattermann, two-story frame residence, 24 by 36 feet, cost \$5,000; projected; F. Meggers, builders. For Chas. B. Pottgieser, two-story brick store building, 50 by 62 feet, stone and galvanized iron trimmings, cost \$8,000; under way. Brick church building, 50 by 103 feet, cost \$32,000, to be built at Richmond, Minn.; Gaines & Shoble, builders. For Chas. Rapp, three-story brick block, 62 by 60 feet, stone and galvanized iron trimmings, cost \$14,000; under way. For Chas. Rapp, three-story brick store building, 30 by 50 feet, stone and galvanized iron trimmings, cost \$5,000; under way. For John Will, three-story brick tenement, 26 by 56 feet, stone and galvanized iron trimmings, cost \$9,000; under way. Also two frame dwellings, aggregating \$5,300; projected.

Architect A. M. Radcliffe reports: For Mr. C. Riley, two double two-story dwellings, 56 by 72 feet, stone, mansard, slate roof, cost \$35,000. Also alterations for same party to cost \$7,000. For A. W. Schwabe, two-story brick and stone store, 35 by 60 feet, cost \$6,500. Catholic church, brick, at Eau Claire, Wis., 64 by 145 feet, cost \$45,000; Edward Hennebury, contractor. All the above work will commence in the spring. Also have a number of buildings under way both in and out of the city.

Architects Hodgson, Wallingford & Stein. For Mr. T. R. Boyd, St. Louis, Mo., brick and frame building, cost \$18,000. For Aberdeen (Dak.) National Bank, a bank building to cost \$10,000. For J. E. Glass, a residence to cost \$4,500.

Architect Walter Iffe reports: Three-story brick hotel at Miles City, Montana, to cost \$20,000. Three residences for Mrs. McManus of St. Paul, to cost \$10,000. A residence for T. Bartlett, to cost \$7,000. A residence for B. M. Finch, to cost \$5,000.

Architect C. Ed. Dressell, formerly with D. W. Millard, has opened an office at 349 Wabasha street, and reports new business as follows: Residence for Wm. Bohnholzer, 44 by 60 two-story mansard roof, cost \$5,000. Two-story building for Wm. Seng, 26 by 52, corner of Washington and Chestnut streets, cost \$7,000.

Architect H. S. Treherne is preparing plans for a residence, for Henry B. Sweet, on Burr street, residence for R. K. Hosmer, on Clark street, residence for Jas. J. McCafferty, on Sherbourne avenue, residence for J. C. Carter, on Clark street.

This spring a four-story addition, with fifty feet front, is to be built to the International hotel corner of Jackson and Seventh streets. The improvement will cost \$25,000.

Wm. B. McKown of Jackson, Ia., is to build a three-story store and office building on Seventh street, near Robert street, cost \$18,000.

The following permits have been issued recently: Two double houses: cost \$20,000 each, Mr. C. Riley. House for C. Riley; cost \$6,000; A. M. Radcliffe, architect. Minnesota Club-House, cost \$30,000; Chas. T. Mould, architect. Two-story frame double dwelling on Burr street; cost \$4,800; owner G. W. Dieter. Two-story frame double dwelling, South side of Grove street; cost \$6,000; owner, Mrs. C. A. Finchout. One-story roller rink, East Seventh street; cost \$3,500; owner, Mr. Geo. Leonard.

St. Louis, Mo.—A number of contracts have been recently let, and there is prospect of an early spring season with a large amount of work.

At the meeting of the Mechanics' Exchange, January 25, the following officers were elected for 1885: Daniel Evans, president; Samuel H. Hoffman, first vice-president; Thos. P. McKelleget, second vice-president; Wm. S. Stamps, treasurer; Richard Walsh, secretary; E. W. Creighton, doorkeeper.

Architect Chas. F. May reports: For August Titzel, three-story stone front residence, 23 by 55 feet, cost \$6,000; under roof; Ben. Koester, builder. For H. W. Schuetz, two-story brick residence, 23 by 50 feet, cost \$3,500; under way. For I. G. Baker, two-story brick and terra-cotta residence, 35 by 65 feet, cost \$14,000; brickwork finished; Jno. Mahon, builder. For I. G. Baker, two-story brick stable, 22 by 40 feet, cost \$2,000; projected. For August Manewall, two-story brick stable, 21 by 40 feet, cost \$2,000; projected. Also three-story stone front residence, 33 by 67 feet, cost \$16,000; projected; Goesse & Remmers, builders. For F. W. Obermeir, two-story brick dwelling, 31 by 65 feet, cost \$6,500; contract not let. For Mrs. D. Rose, three-story brick dwelling and store, 24 by 63 feet, cost \$4,500; projected; contract not let. For P. Hanlon, three-story brick dwelling and store, 24 by 58 feet, cost \$5,500; projected; contract not let. For H. Huchmann, three-story brick dwelling and store, 22 by 59 feet, cost \$4,500; projected; L. Jauger, builder. For H. Nolkammer, row of six three-story dwellings, 100 by 52 feet, cost \$14,000; projected; Epke & Trangel, builders. For F. Hockwukel, double three-story brick dwelling, 40 by 50 feet, cost \$5,000; projected. For F. Stock, three-story brick store and dwelling, 20 by 60 feet, cost \$5,000; August Fick, builder.

Architect Chas. K. Ramsey has let the contract for a two-story, ten-room residence, Queen Anne style, for Dr. A. Merrill, who will commence building on Washington avenue, opposite Cabanne avenue, in a few days. This building, when completed, will cost \$3,000. Mr. Ramsey is now making sketches for two cottage residences, which will probably be built at Maryville during the coming summer.

Architects James Stewart & Co. have in hand the building of the power station for the cable road. It was to have been about finished during this month, but work has been seriously delayed by the extreme cold weather, and the walls are now only up to the second story. In this office, plans for a \$45,000 court-house are to be seen. The new temple of justice is to be built at Winchester, Scott county, Ill., ready for the fall term of the circuit court. Drawings are also being made for a \$6,000 skating rink in the town of Nevada, Mo.

Architect James H. McNamara is busy making the design for a two-story ten-room dwelling for F. H. Verborg, cost about \$7,000.

Charles F. May has just finished plans for a fourteen-room double dwelling for Frank Brockwinkel, to be erected on Prairie avenue, near Florissant avenue, cost about \$5,500.

Architect J. B. Legg has completed plans for an eight-room Eastlake residence for Mr. C. H. Smith, cost about \$5,000. Contract let for an eight-room Queen Anne cottage for Mrs. Mary E. Hinchcliff, cost \$3,000. Also for cottage for Mr. B. C. Taylor, cost \$4,500; English Gothic six-room dwelling for Mrs. R. S. Caldwell, cost about \$3,700.

Architects Geo. I. Barnett & Son have let contract for four six-room tenements for Mr. T. H. Temple, cost \$5,500. Preparing drawings for a spacious residence for J. E. Kaime, to occupy the place of the one recently destroyed by fire. It is to be constructed of brick with brownstone and terra-cotta trimmings, and have seventeen rooms and a French attic, cost \$25,000.

Architect P. F. Meagher has let the contract for seven eight-room stone front dwellings for James P. Fairley, to cost \$22,000. Also for two six-room stone-front dwellings for James Fanning, cost \$5,000.

Mr. J. G. Cairns is completing plans for two stores for John Adams, cost \$4,500. He has also about finished the drawings for a row of six two-story seven-room houses for George R. Nelson, estimated cost \$19,000. Also preparing drawings for a ten-room brick house for M. Gannon, to cost \$4,500.

Architect Chas. McNamara is drawing plans for the alteration of a dwelling owned by James Halpin, on Wash between Twelfth and Thirteenth streets, into a three-story stone front office and business building, to cost \$7,000.

Architects George I. Barnett & Son have completed plans and are taking bids for the erection of a set of Paris flats for General McAdams, to cost \$40,000.

The Independent Order of Odd-Fellows are contemplating a decided transformation of the appearance of their property, on the northeast corner of Ninth and Olive streets. A handsome structure will soon take the place of the present dilapidated pile, six stories in height, practically fire-proof, and fronting 135 feet on Olive street by 117 feet on Ninth. The two upper floors will be used for lodge meeting purposes, the other four floors to be used for general business purposes. The whole cost of the structure, including internal improvements, will be about \$325,000.

Mr. William J. Nolkner is building a three-story residence on the north side of Sheridan avenue, between Elliot and Clay avenues, which, when completed, will cost nearly \$20,000.

Architect J. W. Herthel reports: For Isidor, Bush & Co., four-story brick and terra-cotta building, 28 by 150 feet, cost \$15,000; under way; B. Weber & Co., builders. For John H. Wright, two-story and attic, stone front dwelling, 33 by 61 feet, cost \$9,000; under way; G. Koch, builder. Also several dwelling houses projected.

Architects A. Grable & Co. report: Business good. For Jas. E. Shorb, alterations in three-story brick dwelling, 25 by 75 feet, cost \$4,300; A. E. Cook, builders. For John Grethes, two-story Queen Anne residence, 53 by 65 feet; pressed and moulded brick and brownstone, high slate roof, cost \$16,000; under way; contract sub-let. For Given Campbell, two-story Queen Anne dwelling, 50 by 70 feet, red brick, high slate roof and extensive porches, cost \$17,000; under way; J. Stumple & Son, builders. For Nicholas Scharff, two-story brick stable, 25 by 40 feet, cost \$2,000; projected. For Mrs. A. K. Farrar, two-story brick dwelling, 36 by 48 feet, thirteen rooms, slate roof, cost \$8,000; projected. For Mrs. McLanahan, two-story pressed brick dwelling, 27 by 62 feet, slate roof, cost 6,000; projected. For M. A. Rosenblatt, apartment house, 87 by 160 feet, three-stories, sixteen suits, galvanized iron fronts, cost \$50,000; projected. For James A. Lynch, three-story dwelling, 21 by 60 feet, pressed brick and brownstone, cost \$4,000; projected. For D. K. Ferguson, three-story brick warehouse, 42 by 68 feet, cost \$7,000; under way; R. P. McClure, builder.

The following permits have been issued: John Schumacher, two-story brick dwelling, cost \$3,000; C. B. Clark, three-story warehouse, cost \$9,000; C. G. Stifel Brewing Co., three-story machine house, cost \$20,000; Frank Raffie, two-story brick store and tenement, cost \$5,000; D. M. Osborne & Co., four-story brick warehouse, cost \$25,000; F. W. Wesseler, two-story dwelling, cost \$5,000; Henry Wanschaff, two-story dwelling, cost \$3,300; J. Billmeyer, two-story stores and dwellings, cost \$4,000; Hugh Brenner & Son, two-story, dwelling, cost \$4,000; Adam Workman, three dwellings on Melor, near Galena, \$9,000; Hy Debus, store and tenement on Southeast corner of Rosatti and Sidney, \$5,000; Grand avenue, between Washington and Lucas avenues, one and two-story church, cost \$40,000; Third Baptist Congregational Church; Architect, I. S. Taylor; builder, Henry E. Roach.

Architect E. C. Janssen has plans for two two-story mansard-roof residences, one for John Green and the other for E. L. Seidel; cost about \$5,200 each. Also drawing plans for an \$8,000 two-story factory building, 40 by 70 feet, for the Lungstrass Dyeing Works.

Mr. A. Mansur is having plans and specifications prepared by eastern architects for a residence, to be modeled after the old English Gothic style of architecture. It will be built of dark-red brick with brownstone and terra-cotta trimmings, cost \$40,000.

In view of an aggregate expenditure of \$250,000 in the construction of large, airy mansions to occupy the vacant space on Washington avenue, between Grand and Cabanne avenues, that locality promises to become the most elegant residence block in the city within the next year, as all the ground has been taken for occupancy by parties who are making arrangements to build during the coming season. At the northwest corner of Grand and Washington avenues, George Allen's \$150,000 granite residence is rapidly nearing completion, and on the opposite corner Moses Fraley is getting ready to build two \$15,000 dwellings. John J. Grether has plans for a residence to cost \$20,000. August Manewall has ground broken for a residence to cost \$20,000. A. F. Shapeleigh will erect two handsome dwellings on the same block.

The following are the more important building permits issued recently: Mrs. Emma Lingelfelder, three adjoining brick tenements, stone fronts, twenty-four rooms, mansard roof, cost \$11,000; M. Frederice, contractor. Charles Kunz, four adjoining brick tenements, two-story, eight rooms each, mansard, cost \$6,500; Thos. Gugerty, builder. Thos. & Fullerton, three adjoining brick dwellings, two-story, eighteen rooms, cost \$7,000; B. Weber & Co., contractors. Mrs. Sophia Doyle, three adjoining brick dwellings, two-story, thirty-six rooms, cost \$8,000; I. S. Taylor, architect; John McMahon, contractor. Globe Panorama Company, brick panorama building of hard and press brick laid in cement mortar, one-story, north side Washington avenue between Thirteenth and Fourteenth streets, cost \$45,000; I. S. Taylor, architect; Goesse & Remmers, contractors. Wm. J. Nolkner, two adjoining brick dwellings, two-story, twenty rooms, cost \$11,000; E. Jungensfeld & Co., architects; Bothe & Rottermann, contractors. Wm. J. Nolkner, two adjoining dwellings, two-story, twelve rooms, mansard, cost \$7,000; E. Jungensfeld & Co., architects; Bothe & Rottermann, contractors. Joseph Specht, brick dwelling, two-story, twelve rooms, mansard, cost \$35,000; C. C. Helmers, architect; Bothe & Rottermann, contractors. Joseph Specht, brick stable, two-story, five rooms, cost \$4,000; C. C. Helmers, architect; Bothe & Rottermann, contractors. Wm. Seaver, brick restaurant, two-story, three rooms, cost \$4,000; C. H. Poertner, contractor; A. Beinke & Co., architects. Mrs. B. Roth, two adjoining tenements, two-story, twelve rooms, cost \$4,000; E. W. Black, contractor. J. W. Fipps, two-story, six rooms, brick dwelling, cost \$4,700; Henry Bruno, contractor; A. Beinke & Co., architects. Fred McKaemper, three adjoining brick tenements, two-story, twenty rooms, mansard, cost \$6,000; Alphen & Traenel, contractors. Fred McKaemper, three adjoining brick tenements, two-story, twenty rooms, mansard, cost \$6,000; Alphen & Traenel, contractors. Fred McKaemper, double tenements, two-story, fourteen rooms, mansard, cost \$4,000; Alphen & Traenel, contractors. Abner Cooper, eight adjoining brick tenements, two-story, four rooms, cost \$15,000; E. Baker, architect. E. Engendorf, three adjoining brick dwellings, two-story, eighteen rooms, mansard, cost \$18,000; Wm. Gahl, contractor.

Texarkana, Ark.—The magnificent Marx brick block burned February 21. Total loss estimated at \$175,000, but may reach a quarter of a million. Total insurance, \$118,000. J. N. Dougherty loses \$42,000; insurance, \$22,000. Monsel, Mungesheimer & Co., \$30,000; insurance, \$20,000. N. V. Flipper, \$12,000; insurance, \$3,500. The other losses are under \$10,000. The origin of the fire is unknown.

Toledo, O.—Permits have been issued for, two-story and basement brick dwelling for Charles F. Milburn, cost \$6,500. Two-story brick dwelling for Thomas Dunlap, cost \$4,000. Three two-story brick dwellings for Wm. C. Tate, cost \$9,000. Brick business block for J. T. Newton, cost \$14,000.

Architect A. Liebold: For Thos. Dunlap, two-story brick dwelling, cost \$4,000. For Wm. C. Tate, block of three two-story brick dwellings, cost \$9,000; P. K. Tappan, contractor.

Architect N. B. Bacon: For Chas. F. Milburn, two-story and basement brick dwelling, cost \$6,500; Jas. Haines, contractor.

Architect J. E. Morehouse, for J. T. Newton, brick business block, three stories, 50 by 120 feet, cost about \$14,000; Schall & Costillo, contractors.

Topeka, Kan.—Outlook good. Architect H. M. Hadley reports: For Wm. H. Brooks, two-story and basement frame residence, 42 by 60 feet, mansard roof, all modern improvements, including elevator, etc., cost \$10,500; under way; A. Stewart, builder. For L. H. Probasco, two-story frame dwelling, 27 by 50 feet, cost \$2,600; plans completed; taking bids. For M. P. Simpson, at McPherson, Kan., two-story frame dwelling, 40 by 49 feet, cost \$3,200; plans finished. For C. B. Bowker, at McPherson, two-story frame, Queen Anne, dwelling, 40 by 50 feet, cost about \$3,500; plans on the boards.

Tower City, Dak.—Excavations for university (Dunnell & Elliott, architects) commenced, but work discontinued until spring. Building is to be ready for occupancy next fall.

Washington, D. C.—The House committee on public buildings decided favorably in their report of the bill providing for the following appropriations: \$50,000 to Nebraska City, Neb., \$25,000 additional to Quincy, Ill., and \$100,000 to Oskosh, Wis.

Senator Morrill reported favorably, from the committee on public buildings and grounds, a bill which provides for the erection of a fireproof building, in this city, to contain records of the library and museum of the medical department of the army; the cost not to exceed \$200,000.

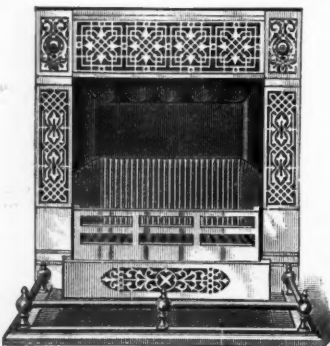
The sundry civil appropriation bill reported to the House, provides for the appropriation of the following: For necessary repairs to custom house and sub-treasury, Chicago, \$49,000; completion of postoffice, Hannibal, \$37,720; completion of public building, Jefferson City, Mo., \$32,000; custom house and postoffice, Kansas City, \$15,000; continuation of public buildings, St. Joseph, Mo., \$5,000; completion of public building, Leavenworth, Kas., \$50,000; repairs and preservation of custom houses, postoffices and other buildings under control of the treasury department, \$150,000; for repairs and preservation of marine hospital, \$20,000.

Waterloo, Dak.—New depot for Minneapolis & St. Louis and Iowa & Cedar Rapids railroads, 20 by 60 feet, with wing 20 by 30 feet; completed. Water-tank and engine-house will soon be ready for use.

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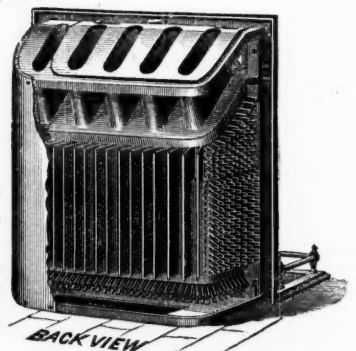
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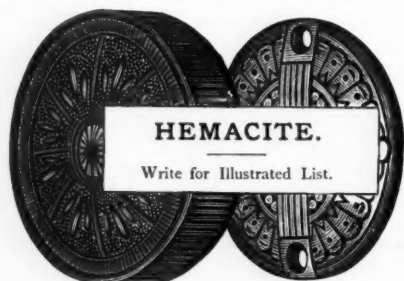
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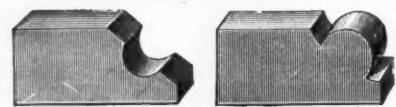
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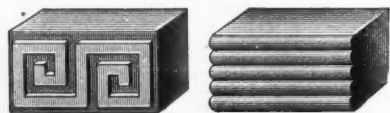
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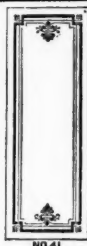
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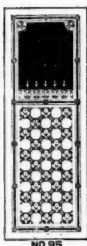
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The building committee will examine plans for steam heating and styles of iron book racks and cherry office desks, and receive bids for the same up to June 1, 1885. Parties desiring to bid on above work must visit the building, make their own plans and specifications, and fully explain what and how they propose to do, and they can do so at any time. The secretary can be found at any time to give any information required.

J. D. PAIGE, Secretary, Joliet, Ill.

WATER WORKS.

[At Paolo, Kans.]

Sealed proposals will be received by the City Council of the City of Paolo, Kans., on April 1, 1885, for the construction of water works in this city. Specifications and descriptions furnished on application to the Clerk of said city.

COURT HOUSE ALTERATIONS.

[At Preston, Minn.]

PRESTON, January 9, 1885.

The County Commissioners of the County of Fillmore, in the State of Minnesota, will receive sealed proposals until the 25th day of March, 1885, at 12 o'clock M., at the office of the county auditor, in the village of Preston, said county, for the remodeling of the county court house in said village, and the building of 2 two-story brick additions thereto, and iron vaults therein, and the furnishing all materials, in accordance with the plans and specifications thereon on file in the office of said auditor, which can also be seen at the office of Mayberry & Son, architects, Winona, Minnesota.

No bids will be received except for the whole building complete as specified.

The successful bidder will be required to give a sufficient bond with sureties, within a reasonable time to be fixed by said commissioners, in the sum of \$15,000, to be approved by said commissioners, conditioned upon the faithful performance of his contract.

Each bid must be accompanied by a sufficient bond with sureties, or a duly certified check payable to said county in a sum of at least five per cent of such bid, conditioned upon the giving the bond above specified within the time so fixed, provided such bid should be accepted. The work will cost several thousand dollars, and must be completed on or before the first day of November, 1885. Right reserved to reject any or all bids.

J. G. MINER,

Chairman Board of County Commissioners.

Attest: G. A. HAVES, County Auditor.

BUILDING BIDS.

ENGINE HOUSES.

[At St. Louis, Mo.]

The following were the lowest bids received for the construction of engine houses:

Engine house on Morgan street, west of the Narrow-Gauge railroad; Bryan Brady; \$10,480.

Engine house on the northeast corner of Sixteenth and Mullanphy streets, \$9,162; with stock brick front, \$9,374.

Shickle, Harrison & Co. secured the contract for thirty-nine tons of 36-inch curved water pipes. Their contract price is \$2,128.23.

COURT HOUSE.

[At Troy, O.]

The following bids for constructing a court house were received by Horatio Pearson, County Auditor, February 11:

Price & Coleman, Dayton, O., \$162,000; Rudy & Goldsmith, Dayton, O., \$157,696; Dorzbook & Decker, Sandusky, O., \$149,996; W. Van Vatter, Warsaw, Ind., \$156,000; L. B. Stevens, Toledo, O., \$148,060; Cummins & Hinkly, Indianapolis, \$146,411.55; W. H. Canfield, Lima, O., \$138,785.36; Myers, Gillespie & Myers, Fort Wayne, \$132,000; T. B. Townsend, Zanesville, O., \$130,158.64. The contract was awarded to T. B. Townsend, of Zanesville, O.

COMPETITIONS.

CITY HALL.

[At Richmond, Va.]

February 16, 1885.

Proposals are invited until June 1st, 1885, for furnishing designs for a city hall, upon which premiums will be paid as follows:—

For first-best design, \$700.

For second-best design, \$300.

The Committee on Grounds and Buildings of the City Council reserves the right to reject any and all designs.

For information address the undersigned.

W. E. CUTSHAW, City Engineer.

COURT HOUSE.

[At Toronto, Can.]

TORONTO, December 23, 1884.

Designs, in competition for a Court House, to be erected on Queen street, at the head of Bay street, in the city of Toronto, will be received by the Court House Committee of the City Council up to noon of Wednesday, the 23d day of March, 1885.

Premiums will be awarded as follows: "First prize, the carrying out of the work as set forth in the instructions; second, \$500; third, \$400; fourth, \$200."

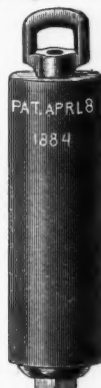
All further information can be had on application at the City Clerk's Office, City Hall Buildings, Toronto.

DAVID WALKER,

Chairman Court House Committee.

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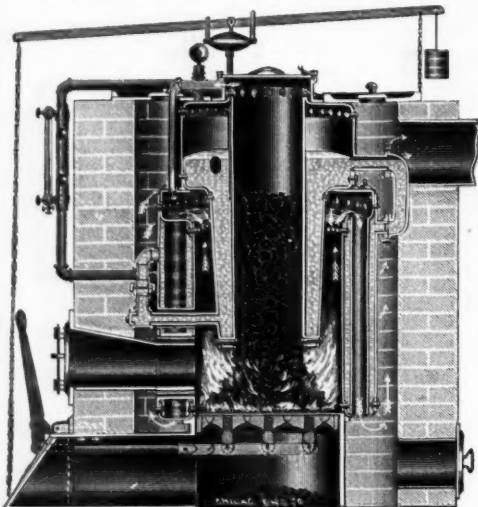
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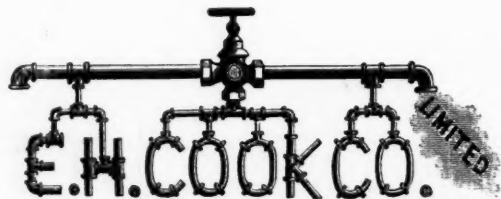
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Bricklayer.....		\$3 00	\$4 00	\$4 00	4 00	\$6 00	\$4 50	\$4 00	\$4 00	\$3 00	\$3 75	\$3 50	\$4 00	\$3 00	\$4 00	\$4 00	\$4 00	\$3 50	\$4 75	\$4 50
Brickmason (Front).....		5 00	5 00	5 00	4 50@5 00	10 00	4 50	5 00	4 50	4 00	4 50	4 00	4 50	4 00	5 00	6 00	.....	3 75	5 00	6 00
Carpenter.....		2 50	2 50	2 50	2 50@2 75	3 50	2 75	2 75	2 75	1 50	2 00	3 00	2 25	2 50	3 00	2 50	2 50	2 50	2 75	3 00
Cabinetmaker.....		.....	.....	.....	.....	3 00	.....	.....	3 00	3 00	.....	.....	.....	.....	.....	3 50	.....	2 50	3 00	3 00
Finisher.....		.....	3 00	.....	3 00	3 50	3 00	.....	3 00	3 00	.....	.....	2 50	.....	.....	3 00	.....	2 50	2 75	3 00
Gasfitter.....		.....	.....	.....	2 50@3 00	3 25	3 25	2 50	3 00	3 50	3 00	3 00	3 00	2 50	3 00	3 50	4 00	4 00	3 25	3 50
Laborer.....		1 75	1 50	1 50	1 25@1 50	2 50	1 50	1 50	1 75	1 50	2 00	1 75	1 50	1 75	2 00	2 50	1 50	1 50	2 00	2 00
Painter.....		2 00@2 25	2 50	.....	2 25@2 50	3 00	2 50	2 50	2 25	3 00	2 50	2 50	2 00	2 50	2 75	2 50	3 50	2 00	3 75	3 00
Glazier.....		.....	.....	.....	.....	3 50	.....	.....	2 25	3 50	.....	.....	.....	.....	.....	.....	.....	.....	3 00	3 00
Plasterer.....		2 50	3 50@4 00	3 50	8 hrs. 3 50	4 50	3 50	3 50	3 50	3 50	3 00	3 00	3 00	3 50	3 50	3 50	4 50	2 75	4 50	5 00
Plumber.....		.....	2 50@3 00	.....	4 00	4 00	3 00	3 00	3 00	3 00	3 00	3 00	3 00	3 00	3 50	3 50	3 50	3 75	3 75	5 00
Stonemason.....		3 00	3 50	2 50	4 00	5 00	3 50	3 50	3 50	3 50	2 50	.....	3 00	3 50	3 00	3 00	3 00	3 00	3 25	4 00
Carver.....		5 00	5 00	4 00	4 50@5 00	4 50	5 50	5 00	5 00	4 00	5 00	.....	.....	.....	.....	.....	.....	.....	3 00	6 00
Stonemason.....		3 50	4 00	4 00	4 00	5 50	3 25	3 50	4 00	4 50	3 00	.....	4 00	3 50	2 75	4 00	4 00	.....	3 00	4 00
Stonesetter.....		3 50	3 50	3 50	4 00	4 00	3 50	3 50	4 00	4 50	3 00	.....	3 00	3 00	3 50	4 00	4 00	.....	5 00	4 50
Roof (Tin).....		.....	.....	2 75	2 75	3 25	2 75	2 75	2 50	2 50	3 00	.....	.....	.....	2 75	3 00	.....	.....	2 75	2 50
Slater.....		.....	.....	2 75	3 00	3 25	3 25	3 50	3 00	3 00	3 00	.....	.....	.....	3 00	3 00	.....	.....	2 75	5 00
Stairbuilder.....		.....	3 50	3 00	3 25@3 75	4 50	2 75	.....	3 00	3 00	3 00	5 00	.....	4 00	3 00	3 00	5 00	.....	2 75	5 00
Steamfitter.....		.....	.....	.....	3 50	3 50	2 50	3 50	3 25	.....	.....	3 00	3 50	3 00	3 50	3 50	4 00	.....	3 25	3 50

PRICES OF BUILDING MATERIALS.		CHICAGO, MARCH 10, 1885.
BRICK.		Per M.
Common.....		\$ 8 25@ 8 75
Fronts:		
Chicago pressed (Anderson).....	22 00@35 00	
St. Louis pressed.....	27 00	
Purinton Kimbell "Standard".....	26 00	
Indiana pressed.....	16 00@28 00	
Philadelphia pressed.....	42 00@45 00	
Milwaukee pressed.....	25 00	
Trenton.....	38 00	
Zanesville (Harris Bros.).....	33 00	
Perth Amboy Buff.....	50 00	
" " Mottled.....	50 00	
Moulded:		
Chicago (Anderson).....	\$65 00@300 00	
St. Louis.....	50 00@125 00	
Indiana.....	25 00@50 00	
Zanesville (Harris Bros.).....	75 00	
Enameled:		
Enameled edge.....	90 00	
Enameled edge and end.....	105 00	
Enameled (Harris Bros.).....	90 00	
CEMENT, LIME, ETC.		Per Cask.
Chicago Lime.....	\$ 0 65@ 75	
Wisconsin.....	96@ 1 00	
Milwaukee, Utica, Louisville, Akron.....	1 00@ 1 25	
Portland.....	3 25@ 3 50	
Keene's coarse.....	7 50@ 9 00	
Keene's fine.....	11 00@12 50	
Plaster of Paris.....	1 75@ 2 00	
Hair (cattle), per bu.....	20@ 25	
Hair (goat), per bu.....	40	
Sand (lake shore), per yard.....	1 00@ 1 25	
STONE.		(Quotations furnished by J. S. F. Batches.)
Limestone:		Per cubic foot.
Buff Bedford.....	50	
Blue Bedford.....	65	
Hoosier blue Bedford.....	65	
" buff.....	50	
Joliet.....	35@ 50	
Lemont.....	40@ 50	
New York bluestone.....	1 35@ 1 40	
Foundation:		
Dimension.....	20@ 25	
Rubble, per cord.....	8 00	
Sidewalk.....	40@ 1 00	
Planned.....	40@ 1 00	
Sandstone:		
Hummelstown Brown Stone.....	1 50	
Brown Connecticut.....	1 50	
Amherst.....	60@ 75	
Berea.....	55@ 65	
Brown Potomac.....	1 25	
Carbondell.....	1 10	
Marble:		
Italian, veined.....	4 00	
Tennessee, red.....	2 50@ 5 00	
Tennessee, Knoxville.....	3 00	
Vermont, white.....	3 50@ 8 00	

Marble, continued:		
Ophite.....	4 50@ 5 00	
Armodite.....	1 50	
Slate:		
Roofing, Vermont, per square:		
Green.....	6 50	
Purple.....	6 50	
Red.....	13 50	
Black, Lehigh.....	5 75@ 6 75	
Black, Chapman's.....	7 30@ 8 00	
Black, Bangor.....	5 50@ 5 80	
LUMBER.		(Lumbermen's Exchange, 250 So. Water St.)
Boards:		(Ordinary Dimensions.)
Pine, 1st quality, clear.....	\$44 00@48 00	
Pine, 2d quality.....	44 00@46 00	
Pine, 3d quality.....	40 00	
Common.....	12 00	
Siding:		
Pine.....	9 00@21 00	
Framing Timber:		
Pine.....	10 00@14 00	
Laths:		
Pine.....	1 90	
Shingles:		
Pine (sawed).....	2 00@ 2 60	
Miscellaneous:		
Pickets, pine.....	8@ 11	
Posts, cedar.....	9 00@21 00	
Pine, yellow southern.....	30 00@35 00	
HARDWOODS.		(Quotations furnished by Geo. E. White & Co.)
Walnut, 1st & 2d, 1 in.....	\$ 75 00@ 80 00	
" 1 1/2 & up.....	80 00@ 100 00	
Walnut, counter top.....	15 00	
Ash, 1st & 2d, 1 in.....	32 00@ 35 00	
" 1 1/2 & up.....	35 00@ 40 00	
Maple, 1st & 2d, 1 in.....	25 00@ 35 00	
" 1 1/2 & up.....	35 00@ 40 00	
Oak, white, 1st & 2d, 1 in.....	30 00@ 35 00	
" 1 1/2 & up.....	35 00@ 40 00	
Oak, red, 1st & 2d, 1 in.....	30 00@ 35 00	
" 1 1/2 & up.....	30 00@ 35 00	
Oak, quarter sawed.....	40 00@ 45 00	
Cherry, 1st & 2d, 1 in.....	75 00	
" 1 1/2 & up.....	80 00@ 85 00	
" 2 1/2, 3 & 4 in.....	95 00@ 100 00	
Beech, Red, 1st & 2d.....	25 00@ 30 00	
Whitewood, 1st & 2d, 1, 1 1/2, 1 3/4 & 2 in.....	30 00@ 35 00	
" 2 1/2, 3 & 4 in.....	35 00@ 40 00	
Birch, red, 1st & 2d.....	35 00@ 40 00	
Butternut, 1st & 2d, 1 in.....	50 00@ 55 00	
" 1 1/2 & up.....	55 00@ 60 00	
Sycamore, 1st & 2d.....	20 00@ 25 00	
Gum, red, 1st & 2d, 1 in.....	25 00@ 30 00	
" 1 1/2 & up.....	35 00@ 40 00	
FINISHING WOODS.		
Mahogany, Mexican, per lb.....	15@ 20	
Mahogany, St. Domingo, per lb.....	20@ 25	
Mahogany, Cuba, per lb.....	12@ 20	
Rosewood, per lb.....	5@ 15	

CALIFORNIA WOODS, ETC.		(Quotations furnished by Charles B. Crombie & Co.)
Redwood lumber.....		\$60 00@65 00
Redwood shingles—square, hexagon, round, diamond and octagon, small quantities.....		6 50@ 7 25
Mexican Spanish cedar.....		150 00@300 00
California pine.....		65 00@ 75 00
Georgia Yellow Pine:		
Flooring:		
1st & 2d clear, 4 in.....	35 00	
1st & 2d clear, 6 in.....	35 00	
Boards, D 1 s.....	33 00@ 35 00	
Beaded Ceiling:		
1st & 2d clear, 1/2 in.....	18 00@ 21 00	
" 3/4 in.....	26 00@ 30 00	
" 1 in.....	33 00@ 36 00	
Step plank:		
1st & 2d clear 1 1/4, 1 1/2 & 2 in.....	33 00@ 35 00	
Georgia Cypress:		
Lumber, 1st & 2d clear.....	35 00@ 40 00	
Shingles.....	3 75@ 4 25	
Frame Oak Lumber and Timber:		
Plank.....	23 00@ 25 00	
Timber.....	24 00@ 30 00	

PAINT, ETC.		Per lb.
White lead (American).....	5 1/2	5 1/2
Zinc, white (American).....	8@ 10 10@ 12	
Red, Venetian.....	2@ 6@ 12	
Red, Vermilion.....	20@ 50 40@ 1 00	
Red, Indian (English).....	12@ 22	
Yellow, Ochre.....	2@ 15	
Yellow, Chrome.....	12@ 25	
Green, Chrome.....	12@ 30	
Green, Paris.....	20@ 35	
Black, lamp.....	8@ 30	
Blue, ultramarine.....	16@ 35	
Putty.....	1@ 3	
Whiting (dry).....	1@ 2	
Paris white (English).....	2@ 3	
Litharge (American).....	6@ 10	
Sienna, burnt.....	9@ 16	
Umber, burnt.....	7@ 16	
Oil, linseed (raw), per gal.....	51	
Oil, linseed (boiled).....	54	
Turpentine.....	34	
Varnish, coach, " ".....	1 25@ 2 00	
Varnish, shellac, " ".....	3 25@ 4 00	

HARDWARE.		Per Keg.
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Tenpenny, common.....	2 35	
Shingle, 4 s.....	3 10	
Lath, 3 s fine.....	5 35	
Steel nails, 10 s to 6 s.....	3 40	
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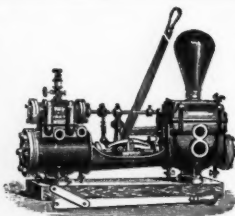
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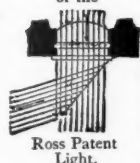
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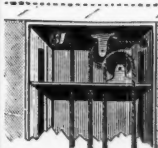
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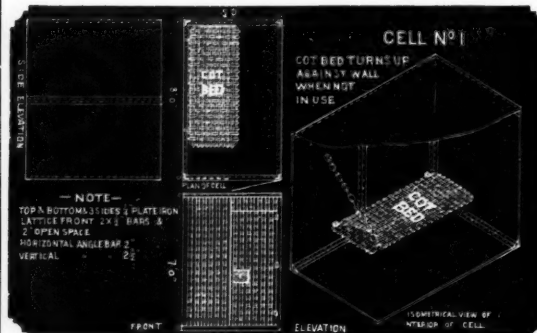
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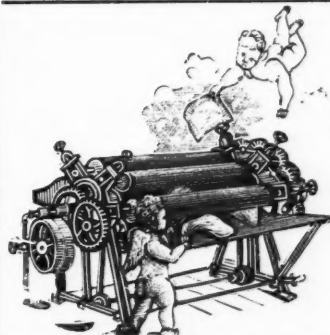
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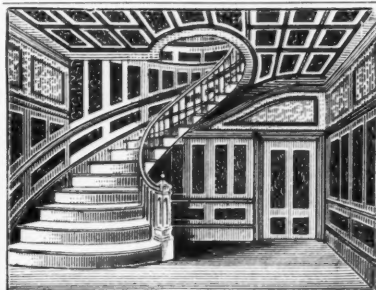


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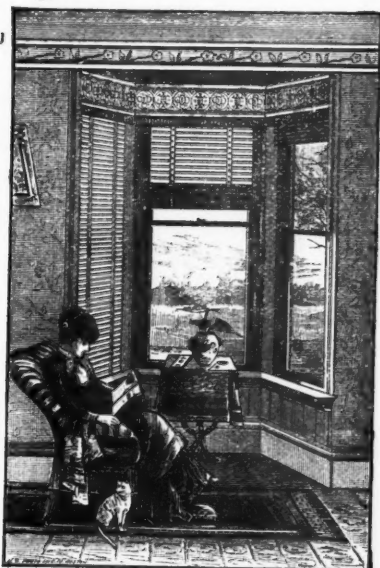
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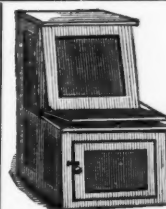
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