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A MONTHLY JOURNAL
(WITH AN INTERMEDIATE NEWS NUMBER)
DEVOTED TO WESTERN INTERESTS.

OFFICIAL ORGAN OF THE
WESTERN ASSOCIATION OF ARCHITECTS.
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VOL. VIII.—No. 7.

CHICAGO, NOVEMBER, 1886.

TERMS: { \$3.00 a year in advance.
Regular number, 25 cts. a month.
Intermediate number 10 cts.

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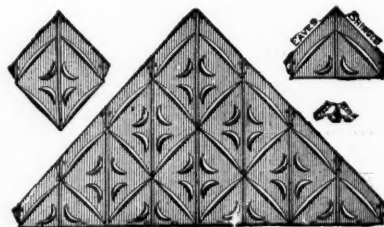
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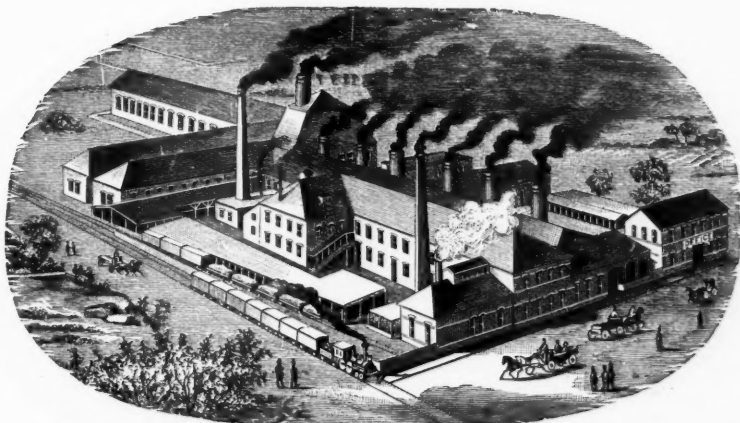
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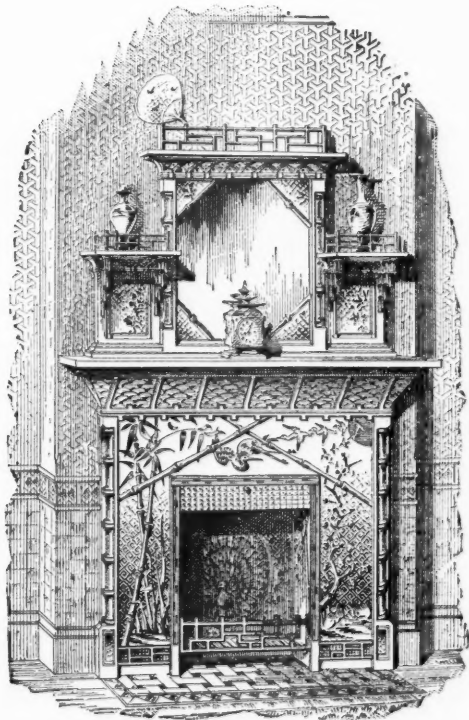
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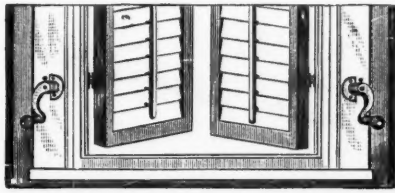
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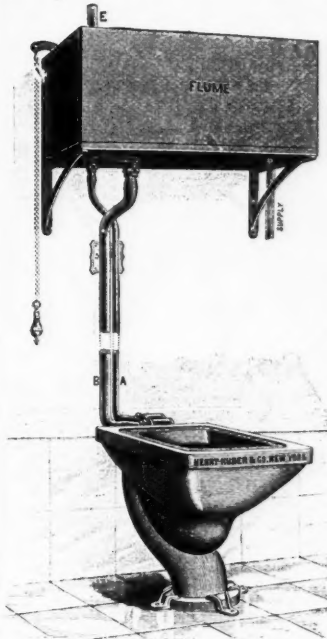
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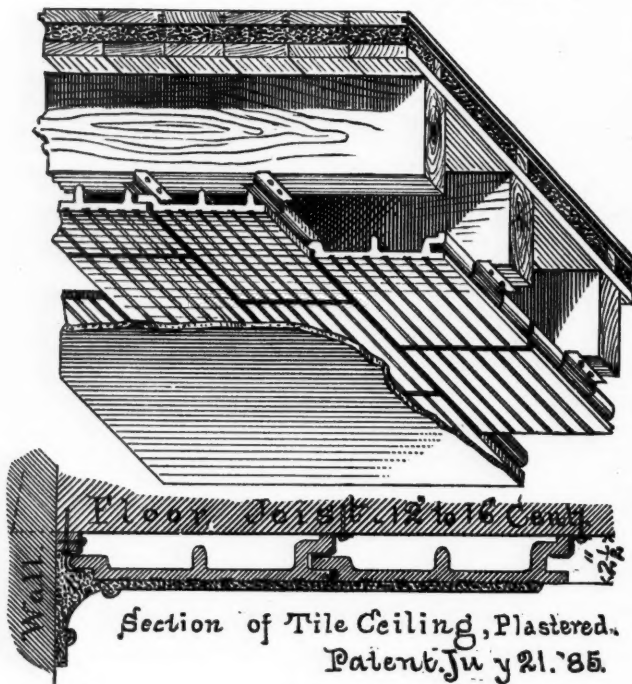
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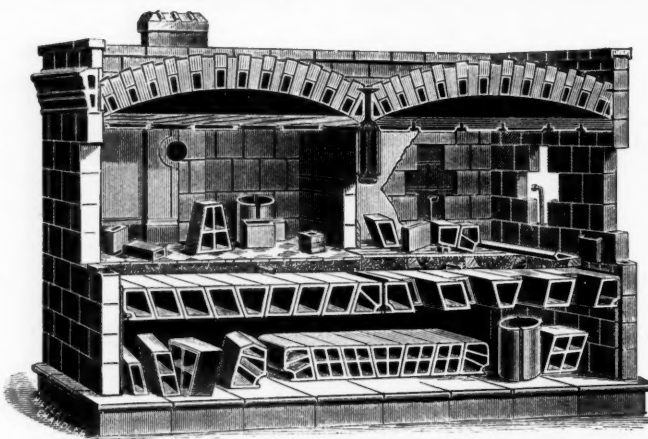
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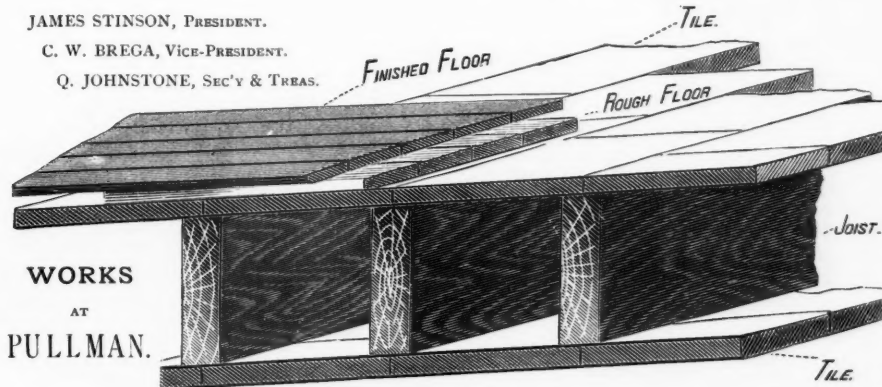
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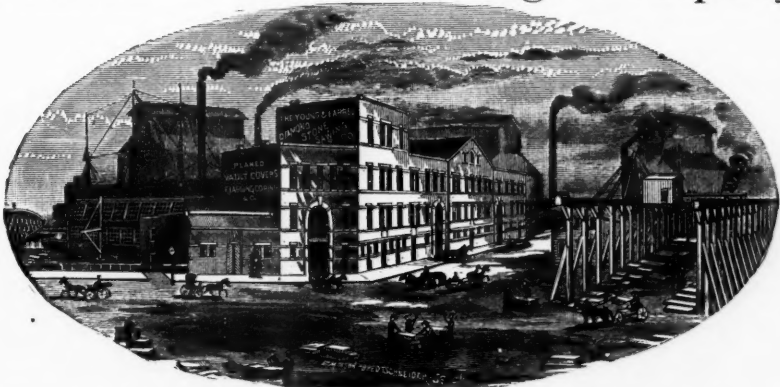
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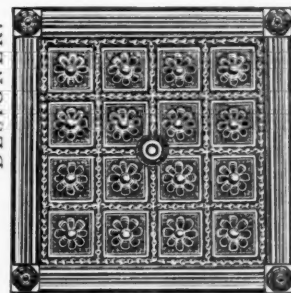
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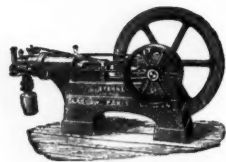
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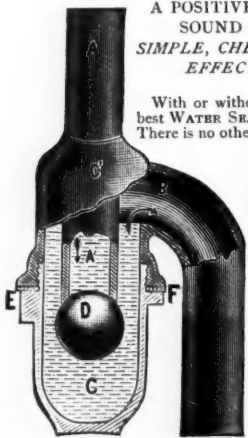
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The Board of State House Commissioners will employ such skilled assistants as they may deem advisable to sit with them as an awarding committee. The Board of Commissioners will pay \$3,000 for the best plans submitted and \$1,500 for the second best,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

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

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

E. B. ALLEN, Secretary of the Board.

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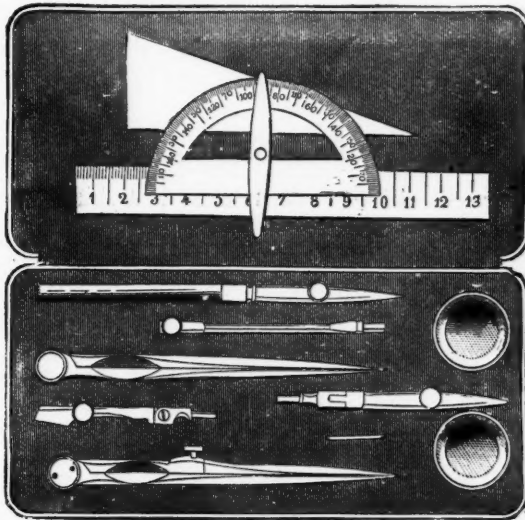
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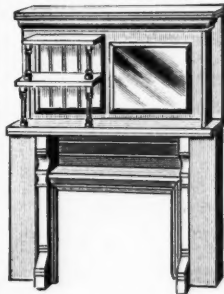
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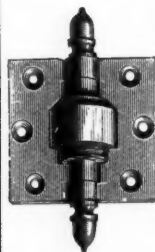
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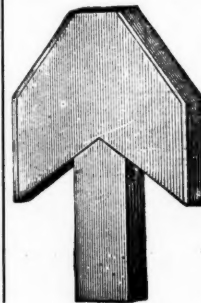
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Bricklayer.....	\$3 00	8 hrs. 3 20	\$4 50	3 50	\$4 00	\$3 50	\$4 50	\$5 00	\$3 50	\$3 00	\$4 50	\$4 00	\$4 00	\$3 50	\$4 50	\$4 00	\$4 00	\$2 25
Brickmason (Front).....	3 00	8 hrs. 4 00	4 50	5 00	4 00	4 00	5 00	5 00	5 00	5 00	5 00	5 00	4 00	4 50	5 00	5 00	4 25	2 50
Carpenter.....	2 50	2 50@2 75	2 50	1 75@2 25	2 50	2 75	3 00	3 50	2 75	2 50	2 50@3 00	2 50	2 25	2 50	2 50	2 50	2 50	1 75
Cabinetmaker.....				1 75@2 25							2 50			2 50				
Finisher.....		3 00	3 00	1 00@1 75			3 00	4 00	3 00		3 00		2 75		2 75		2 50	
Gasfitter.....	3 50	2 50@3 00	3 25	2 00@3 00	3 00	3 50		8 00	5 00		3 00@4 00	3 00	3 00	2 50	3 50	2 25	2 50	2 75
Laborer.....	1 25	1 60@1 76	1 50	1 50	1 50	1 75	1 25	2 50	1 50	1 00	1 75@2 00	1 50	1 25	1 60	1 25@1 50	1 25	1 50	1 00
Painter.....	2 00	2 25@2 50	2 50	1 50@2 50	2 50	2 50	2 50	2 50	2 50	2 50	2 50@3 00	3 00	2 00	2 75	2 50	2 25	2 50	1 75
Glazier.....	2 00			1 50@2 50	3 00	2 50		2 50			3 00	3 00	2 25		3 00	2 25	2 50	1 75
Plasterer.....	3 00	8 hrs. 3 50	3 50	3 25	3 00	3 00		4 00	2 25	4 00@4 50	2 66	3 00	3 00	4 50	4 00	2 50	1 75	
Plumber.....	3 50	3 50@4 00	3 50	2 50@3 00	4 00	4 00		8 00	4 00		5 00	3 50	3 25	3 50	2 50	2 75	3 00	
Stonemason.....	3 00	4 00	3 50	3 25	3 00	3 75		4 50	3 50	4 50@5 00	4 50	3 00	2 75	3 00	4 00	3 50	2 75	
Carver.....	5 00	4 50@5 00	5 50	5 00				9 00	4 00		5 00		4 00		4 00		3 00	
Stonemason.....	3 50	3 75@4 00	3 50	3 50	2 75			3 00	4 00		5 00		4 00		4 00	4 00	3 00	
Stonesetter.....	3 00	4 00	4 00	3 50	3 50			3 00	4 00		4 00		4 50		4 00	4 00	3 75	
Roof (Tin).....	75	2 75	2 75	1 25@2 25	2 75	3 00		3 00	2 50	2 50@3 00	2 50	2 25		2 50	2 50	2 50	2 00	
Slater.....	3 00	3 00	3 25	1 75	2 75	3 00		3 50			3 00	2 50		2 50@3 00	3 00	3 50	2 50	2 00
Stairbuilder.....	3 00	3 25@3 75	2 75	2 75@3 00	3 00	4 00		2 50			5 00	2 50	3 00	3 00	3 00	3 00	2 50	
Steamfitter.....	3 50	3 50	2 50	2 50@3 00	3 50	3 50		8 00	3 50	4 00@5 00	2 50	2 50	2 75		3 50	2 50	2 50	3 00

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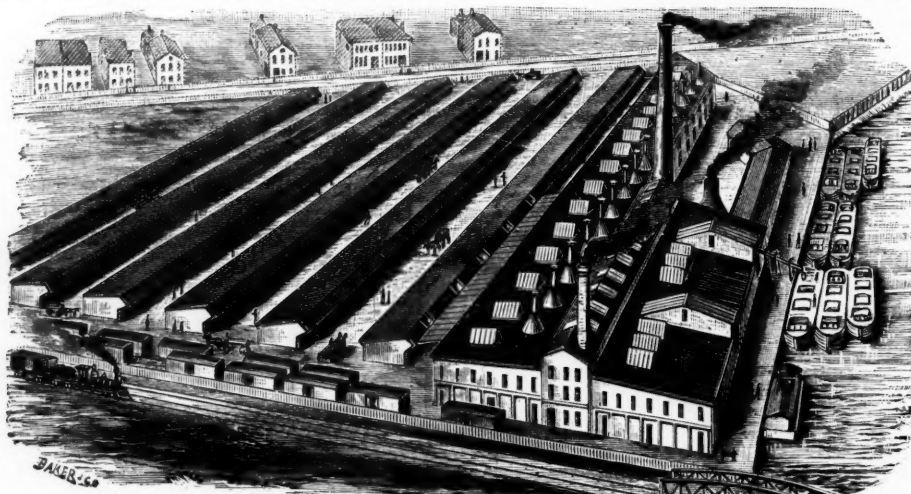
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THE INLAND ARCHITECT AND BUILDER.

Vol. VIII.

No. 7

NOVEMBER, 1886.

THE INLAND ARCHITECT AND BUILDER

A Monthly Journal (with an Intermediate News Number) Devoted to

ARCHITECTURE, Construction, Decoration and Furnishing IN THE WEST.

OFFICIAL ORGAN OF THE WESTERN ASSOCIATION OF ARCHITECTS
(A NATIONAL ORGANIZATION.)

PRICE \$3.00 PER YEAR.

L. MULLER, Jr., Manager. R. C. McLEAN, Managing Editor.
C. E. ILLSLEY, Associate Editor.

PUBLISHED BY THE INLAND PUBLISHING CO.
19 TRIBUNE BUILDING, CHICAGO, ILL.

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ARCHITECTS attending the Western Association Con-
vention on the 17th, 18th and 19th of November,
will, as far as possible, locate at the Grand Pacific Hotel.
Reduced rates have been secured. For other general infor-
mation see our October regular and intermediate numbers.

OUR verbatim report of the coming convention of the
Western Association of Architects, will be submitted
to the directors of the association for revision before
publication, and the number of THE INLAND ARCHITECT
AND BUILDER containing this official report will be sent
to every architect in the United States, and to such others
as the Board of Directors may instruct. The entire expenses
of the report and of such publication, will be borne by us.
These benefits to the Western Association are in fulfillment
by THE INLAND ARCHITECT AND BUILDER of its duties as
official journal. The relation of this journal to the Western
Association and state associations does not prevent other
journals acceptable to these associations from taking steno-
graphical reports of all meetings, and publishing them. As
has been our custom heretofore, we shall be glad to aid
publications to obtain full reports at all times.

THE following preliminary notice to members has been
issued by the secretary of the American Institute of
Architects, calling a meeting of that body at New York City
on December 1, 2, and 3:

AMERICAN INSTITUTE OF ARCHITECTS,
SECRETARY'S OFFICE—10 CATHERINE STREET,
NEWPORT, R. I., October 24, 1886.

SIR,—At a special meeting of the Board of Trustees, A. I. A., held in the city of
New York on the 13th day of October, 1886, it was voted: That the twentieth annual
convention of the American Institute of Architects be held in the city of New York on
the 1st, 2d and 3d days of December, 1886. The secretary was further instructed to send
to each member of the Institute, at the earliest practicable date, a preliminary notice to
that effect.

At the same meeting of the trustees, Messrs. E. T. Littell, A. J. Bloor and O. P.
Hatfield were appointed a committee on arrangements.

A detailed notice of arrangements, and the programme for the convention, will be
sent out later; but it is deemed best by the committee, in view of the limited time at its
disposal, to request all those who desire to attend the meetings of the convention to
notify the secretary of their intention to be present.

The committee is now perfecting its arrangements and desire to have the twentieth
convention of the Institute a success in all particulars. No efforts will be spared by the
members of the committee to render its sessions of profit and interest to the profession.

The committee further desires to obtain papers on subjects of interest to architects;
also suggestions of subjects for discussion; with drawings, sketches and models for
exhibition. It would be advantageous if members of the Institute would attend the
convention prepared to present topics for discussion; thus opening the way for an
interesting and profitable interchange of ideas on professional practice in general, with
the many interests, scientific, artistic and constructive which surround and elevate it.

All communications should be sent to the secretary of the A. I. A. as early as
possible.

It is also requested that all reports from officers, chapters and standing committees
be forwarded to the secretary before the meeting of the convention, thus avoiding delays
and irregularities in the proceedings.

Respectfully,

E. T. LITTELL,
A. J. BLOOR,
O. P. HATFIELD, } Committee on Arrangements.

E. T. LITTELL,
Chairman.

GEORGE C. MASON, JR., Secretary.

On the eve of so great a gathering of architects as will
assemble in Chicago upon the 17th of this month, the meet-
ing, for the twentieth time of the honored Institute, should
not be forgotten, and its membership should be represented
to the fullest extent. It will also be in order for the Western
Association to continue its committee appointed last year
to attend the Institute convention. The cordial relations
already established between the Western Association and
the American Institute should be in every way fostered by the
members of both.

ACCORDING to a paragraph in the *Gazette des Archi-
tectes*, the trades unions of Paris, instead of stirring up
conflicts between employer and workmen, and boycotting
everyone who refuses to join and sustain their organization,

as is the rule in this country, prefer to devote their energies to the elevation and instruction of their members, and to raising the standard of work in their special line. The Paris Masons' and Stonecutters' Union maintains a practical school, from the first of October to the first of April every year, with classes in reading, writing, spelling and arithmetic, and in drawing and applied geometry with special reference to masonry and stonecutting. There is, beside, a practical course in stonecutting, including full-size details and the laying out of work, also a class in the measurement and valuation of work. All these classes are presided over by instructors of first-class ability. There is no charge whatever to the members who attend these classes. Every week the society has a reunion for the benefit of all its members, and once a year rewards of considerable value are given to those pupils who have made the most progress. Last year these classes were attended by two hundred and sixty workmen or apprentices. In case of sickness each scholar has the benefit of medical attendance free. The model association has just completed a building for its own use which, among other accommodations, includes a number of furnished rooms and workrooms (cabinets), which may be rented by its members at prices varying from \$3 to \$10 a month.

ARCHITECTS and property owners in St. Louis have been subjected to a considerable petty annoyance for several years past through a meddlesome building ordinance, which, among other capricious and gratuitous restrictions, forbids the construction of any feature of a building which shall project over the building line of a street, "except a balcony at the second floor." In view of the fact that an oriel at the second floor is no more of an obstruction to the street than a balcony would be at the same level, architects in St. Louis have repeatedly offered plans with such windows, but have been refused the necessary "permit" unless they would omit the oriels. A few weeks since, the city officials encountered in the Messrs. Sheehan a couple of owners who could not be frightened, and who had the courage to test the legality of this ordinance in the courts. They were completely successful, the complaint against them being promptly dismissed, and a reprimand administered by Judge Cady to petty officials who seek to take advantage of a little brief authority to obstruct the progress of city improvements by inconsistent, unwarrantable and capricious restrictions. A little courage is an excellent thing sometimes.

THE annual destruction of property through fires in the United States is something almost appalling in its magnitude, and altogether disgraceful as to its causation. The *Chronicle* newspaper, of New York, has prepared tables from which it appears that in the year 1885, dwelling houses, alone, to the value of over thirteen million dollars were obliterated by fire. This is over a million dollars a month, and nearly all of it is due to bad construction, carelessness, or crime. Among the reported causes, next to incendiarism come defective flues as producing the greatest number of fires of all kinds, and in dwelling house property this cause heads the list. Then, in the order of frequency, come matches, sparks, and lamp explosions. A surprising number of dwellings are still destroyed through forest and prairie fires, though very probably to most of our readers an old-fashioned prairie or forest fire would be a curiosity. A great number of fires in dwellings are annually caused by gas jets. The introduction of the electric incandescent light will tend to remove this danger. Lightning and fireworks cause about an equal amount of damage every year by fire. The same is true of unprotected stovepipes, furnaces and hot ashes. Tramps

and cigar stubs and defective heating apparatus are nearly alike in incendiary destructiveness. The smallest fire loss, strange to say, is credited to children playing with fire, gasoline explosions, and defective lighting apparatus. The damage done from either of these causes is considerably less than from burglars, or from drunken men. No fire loss is charged against drunken women—whether because they are so few, or so harmless when drunk is not stated.

WE have already, in a former issue, informed our readers of the new Exposition Universelle to be held in Paris in 1889, the preliminary measures for which are now well advanced. Some extracts from the architect's specification for the exposition buildings, which we find in *La Semaine des Constructeurs*, will be interesting as showing how problems familiar to American architects are dealt with abroad. One of these problems is the question, how far the explicit or inadvertent acceptance of work shall bind the architect who afterward finds it to be defective. The French specification is as follows: "All materials must be of the best quality in every respect, and properly worked and set up according to the rules of the trade. They must not be used till they have first been provisionally inspected and accepted by the architects or engineers or their deputies. But notwithstanding this provisional acceptance, they will be subject to rejection at any time before the final acceptance of the work, in case any defect in material or work should be discovered, and must be replaced at the cost of the contractor."

A FREQUENT embarrassment with an architect who is superintending a building which must be completed within a certain fixed time, relates to the acceptance or rejection of work which is not quite satisfactory, but cannot be removed and corrected without a delay which may be much more serious than the inferior quality of the work itself. In the specification for the French exposition buildings this difficulty is anticipated and provided against in this manner: "The contractor is to conform strictly to the design, without alteration or variation. All work or material not strictly in conformity with drawings and specifications must be corrected at once on the order of the engineers or architects. Nevertheless, if the engineers or architects consider that the variations made by the contractor do not impair the stability nor appearance of the buildings they may be allowed to remain, but no allowance will be made to the contractor for any additional material or extra work on account of such changes. In such event he will receive pay only for the work originally contracted for. If, however, the changes made by the contractor should involve a saving to him of materials or work, a credit will be claimed for the difference in value between the work as executed and as drawn."

IN the matter of delay in the completion of work, the French specification appears equally just and rigid. The contractor is held responsible for all consequences and losses resulting from his own neglect, inexperience, mistakes and insufficiency of apparatus for the execution of his work. But if causes beyond his control occasion accident, loss or delay, the contractor may within ten days afterward present a claim for allowance or relief which will be submitted to the government for consideration. No claim will be considered if not made within the ten days, however. The contractor is further required to perform under his contract any additional work which may be desired, not exceeding one-sixth of the total amount contracted for. Beyond that limit he is at liberty to decline.

The Disposal of Sewage of Isolated Country Houses.*

BY WM. PAUL GERHARD, C. E., CONSULTING ENGINEER FOR SANITARY WORKS.
Continued.

THE proper disposal of the sewage of larger country or suburban residences fitted up with all the usual plumbing appliances is often, indeed in most cases, a much more puzzling problem. What shall be done with the more or less large daily volume of sewage of detached and isolated country houses, without creating a nuisance either on one's own premises or on those of the neighbors? This is a question of much interest to thousands of householders who live in the better class of country or suburban houses, and who are often compelled to meet the difficulties as best they can. The problem has long engaged the attention of civil engineers, who make a specialty of sanitary drainage, and while it is possible that the best solution has not yet been discovered, there are several methods which are in more or less successful use. Whatever method of disposal of the sewage may be adopted, it is obvious that one must decide about it before arranging the house drainage system inside of a house, for the best arrangement of the main drain and its branches in the cellar or basement of a house will depend upon the direction in which the sewage tank will be erected, or upon the location of the final outlet. Generally speaking, an isolated country house, not in reach of sewers, may dispose of its sewage by one or the other of the following methods:

1. It may discharge its sewage into an open surface ditch or gutter, removing everything from the house, and carrying the wastes into a more or less distant sink hole, or to some low spot where the sewage is allowed to soak away and to evaporate slowly. This method, based on the principle of "out of sight, out of mind," is a very primitive one, and one that has not a single feature of merit. As a rule, such a system becomes highly offensive to the immediate vicinity of the house.

2. The house drain may empty the sewage into a large open or leaching cesspool, allowing the liquids to ooze away through underground porous strata, or by fissures and cracks in the rock. This, although a very common method of disposal, is in reality one very dangerous to health, particularly so where the water supply is local, being derived from a well, a cistern or spring on the premises. It is a method utterly to be condemned as both unsafe and nasty.

The most primitive form of cesspool is a hole dug in the ground, into which all the sewage is continually poured, the result expected being that at least the liquid will soak away through unknown underground recesses, and disappear. Occasionally the sides of such a cesspool are lined with loose stones, laid dry, the liquid sewage escaping at the numerous open joints into the surrounding soil, while more or less of the solid matter and grease are retained in the cesspool, undergoing at once a very dangerous process of decomposition, in the presence of moisture, heat and darkness—all conditions known to be particularly favorable to the growth of dangerous bacteria or germs of disease. In dealing with sewage, a cardinal principle, always to be observed, is to avoid all stagnation. In the leaching cesspool we have the worst possible example of stagnation and of accumulation of putrefying filth on our premises. The great objection to a leaching cesspool is not only that it constitutes in itself an abominable nuisance, comparable to a powder magazine, which merely needs a single spark to create destruction, but that it unavoidably and invariably pollutes the subsoil in the neighborhood of dwellings, contaminates the water supply, and renders the air which we breathe obnoxious by its exhalations. If we consider for a moment that such isolated country dwellings and farm houses, which are not in reach of sewers, also usually do not enjoy the benefit of a public water supply, but must derive their potable water from wells, cisterns or springs on the premises, the full extent of the evil and the force of our objections become more apparent. It is, indeed, of the utmost importance that the local water supply of isolated dwellings be kept as pure and free from contamination as possible; but even supposing that water is introduced from a street or public supply, the enormous evils of soil pollution and air contamination remain. Two thousand years ago, an old philosopher, Hippocrates, preached a sanitary formula, which has not been improved up to the present day. Recognizing the dangers to health resulting from neglect of sanitary precautions, he expressed his advice in the words, "pure air, pure water, and a pure soil." What, then, shall we say if some of our best architects of the present day persist in suggesting as the most convenient and ready means of getting rid of the sewage of a country house the adoption of a leaching cesspool?

I admit that in sparsely populated country districts a leaching cesspool, located at a great distance from, and at a lower level than, the house, may sometimes be used without causing any harm to the occupants of the house. As a matter of principle, however, sanitary science must condemn such devices in every case. If the principle is true that we should speedily

return all organic dirt and filth to the earth, it should be carried out in such a manner that the soil may accomplish the complete destruction of organic filth. We shall see, further on, that this can be done only near the surface of the soil, and by application of the sewage before it becomes putrid.

In pouring our sewage into leaching cesspools, on the contrary, we bury all matter deep in the ground, remote from the cleansing, oxidizing effect of the atmosphere, of the purifying action of plant life, and of the help which is rendered by some of the low organisms, or so-called bacteria, in the process of nitrification and destruction of organic matter.

Then, again, another important consideration should not be lost sight of, namely, that often where a leaching cesspool cannot work any danger to our own house, our own well or spring, it may pollute shallow or deep wells belonging to adjoining estates. It is, therefore, evident that as habitations are grouped closely together, leaching cesspools become more and more inadmissible. If we are selfish enough to locate such a cesspool in the remotest and lowest corner of our own garden, entirely forgetful of its immediate proximity to our neighbor's drinking-water well, it is but perfectly proper that our health authorities should remind us that we have some obligations to fulfill against our neighbors.

Occasionally, such cesspools are built with the sides solid, leaving only the bottom loose for the escape of sewage, or in cases where they are originally open on the sides, the pores soon clog, and the removal of the liquid then takes place in a very imperfect manner.

3. The house drain may deliver the sewage into a tightly built cesspool, provided with an overflow-pipe carried into some ditch or water-course. Such an arrangement may be considered a direct outcome of the leaching cesspool. Desiring to avoid the pollution of the soil, the architect or owner built the cesspool with tight sides and bottom, but, finding that it would rapidly fill up, and that frequent pumping out would be expensive, an overflow was taken from the cesspool, and the surplus of liquid sewage carried away. While such a tight cesspool with overflow located far away from the house, and with the overflow carried into some large volume of rapidly flowing water, may be unobjectionable, where but little water is used in a house, the arrangement constitutes in the case of larger houses a fearful nuisance, for the sewage is already putrid when removed.

4. The alternative is to empty the sewage into a cesspool built absolutely tight and without overflow. Such a cesspool avoids the pollution of the water supply, and also the contamination of the subsoil. It is, therefore, an arrangement much to be preferred to a leaching cesspool and permissible under certain circumstances. Perhaps I should rather call it a sometimes necessary evil, for it should be borne in mind that it involves a long temporary storage, and does not effect an immediate or nearly immediate disposal. Hence it cannot be approved from a sanitary point of view, and its objections are many and serious ones. Since it is the object of all good drainage to get rid of filth from the premises at once, or else to dispose of it on the premises while *fresh*, so as to be completely taken up by vegetation and purified by the soil, it is evident that a vast receptacle of accumulated filth cannot be considered a sanitary device. The stagnating sewage within the walls of the cesspool undergoes a process of decomposition, and the gases generated are extremely unwholesome, often causing, by improper escape, or by entrance into houses through the sewer pipes, a nuisance. To ventilate such a cesspool successfully, is rather a difficult, and often an impossible, matter.

To overcome some of these objections, it is the habit of some architects to use two cesspools for a single house, delivering into the one all water-closet wastes, while the other one is intended for the reception of kitchen and laundry water. I do not approve of such an arrangement. Practically, it is found that after awhile both cesspools do not differ materially, as regards the degree of putrefaction and offensiveness of their contents; nor can I see any sense in duplicating or multiplying the dangers which adhere to all cesspool arrangements.

There are some cases where no good feasible way of dealing with sewage may be devised other than to run it into a tight cesspool. In that case, the following precautions are to be observed: The cesspool should be located as far away from the house as possible, and there should be a proper disconnection between the house and the cesspool. The latter should be built in two compartments, the first of which constitutes an intercepting chamber for the solids, while the second and larger chamber will receive the liquids. Both chambers should be built thoroughly tight, of hard-burned brick, laid in hydraulic cement, preferably of a circular shape, and the walls should be well rendered inside and outside with Portland cement. Each chamber should be arched over and topped with a manhole, covered with a tight iron cover. The cesspool should be as well ventilated as it is possible to do, and it should be emptied, cleaned and disinfected at frequent intervals. The separation of the liquid from the solid matter facilitates much the disposal of both. The liquids may be bailed, or better, pumped out, and used to sprinkle and irrigate the

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lawn, or a kitchen garden, shrubbery, vine trellis or apple orchard. The solids should be removed and dug as fertilizers under the soil. The oftener this is done the better, and the less offense will be caused by the application of sewage to land.

Some objections to a cesspool always remain. If it is built, as it should be, *absolutely* tight, and of moderate size only, to avoid the retention of too large a volume of sewage, then the necessity of frequent pumping arises, and with it the annoyance of constant attention and of manual labor. If we enlarge the dimensions of the cesspool to avoid the frequency of pumping out, we increase the dangers always resulting from stagnant sewage, and create, as it were, a large gasometer for noxious gases.

(To be continued.)

ERRATA.—In previous number, page 38, first column, fourteenth line from bottom, read "which *in turn* requires," etc., instead of "which we know requires," etc.

Some Building Failures.

BY J. F. ELSOM.

IF "unknown causes" were an individual or firm, the wealth of a nation would hardly be adequate to meet the judgments entered by the losers of buildings falling long before their time, caused by either improper construction, materials and season, or perhaps wanton ignorance of some, or the miserly attributes of others. "Unknown causes," however, being insolvent whenever we hear of the premature collapse of a structure, and the daily papers generally contain one or more accounts, the experts (?) in their zeal to shield each and all from all blame and liability for damages for the loss of life and property, saddle, at one fell stroke, the entire responsibility upon unknown causes.

If here and there, however, we learn of isolated cases where the mill or house loser is not content with what the verdict says, and seeks some causes that are known, then accounting for his loss of stock, machinery and profits of his business. A case still fresh in the minds of many, where the structure, a fine, massive building, devoted to the manufacture of paper, fell one night without a moment's warning, burying thousands of dollars' worth of machinery and a large stock, when it was shown that the various floors were carrying a much less load than formerly, and were always considered safe and strong; but the building fell, nevertheless, with the stereotyped verdict of experts, from some cause or causes unknown, while a close scrutiny of the immense pile of debris revealed that many agents of disintegration had been at work, the greatest wonder being that it stood so long as it did, but perhaps would have stood longer had the floors been kept weighted down.

In this case, not an isolated one by any means, the iron girders had crystallized, and the instant the loads were removed the molecules of the iron lost the last property of cohesion, a characteristic peculiar to this material, and, of course, had no more tensile strength than as much fine sand, in fact, certain situations of portions of these girders were just right to favor separation, there being nothing save the foundations (and in a previous article this subject was discussed) and the bare wall, in and out of line, to prevent the structure from falling, with a very slight increase of pressure of one portion over another.

In this country, more especially in the larger cities where the more massive structures are built, we can at least calculate upon but four primary factors, wood, clay, stone and iron, and in very many instances they are all that the specifications call for. Take any of these three, or the lot entire, and I venture the assertion that the two sciences of chemistry and physics do not treat of four substances differing in their essential characteristics to the extent that these do, and, strange as it may appear, 'tis not less strange than true, these very properties in which they so widely differ, are the ones upon which the architect pins his faith. To a certain extent, however, these deficiencies and redundances, may be made to dovetail, as it were, the one aiding the other in sustaining the superstructures, but in many respects the strong parts are in the wrong places by virtue of the manner in which these substances are placed together in the erection of the building.

Nearly everyone knows that the large iron rods often placed across the building from one side to the other may be broken by heating with a lamp, and the nuts screwed home as fast as the rods expand, what then must be the condition of things when these rods, or what augments the evil, large iron girders pass near a firebox or steamchest, thus subjected to alternate heat and cold, a process favorable to crystallization at the ends, or a constant tendency to contract, thus drawing the walls out of true on account of other rods and girders being remotely situated as regards the fire, hence not subjected to this constant expansion and contraction. A large building in a manufacturing city on the Ohio began to draw in at the sides and was condemned by the city authorities, and upon a mere casual examination a two-inch iron rod across the center was responsible for the mischief, it being tight, while the two others, one at each end, were loose. This rod

was immediately over the gas jets, eight in number, and the heat from them had contracted the rod to that extent that the walls were drawn in, and the floors, though covered with machinery, were sprung in all manner of shapes, and though the walls were found quite badly cracked they were not difficult to straighten, and the house will stand a long time for light work or storage.

Moreover, with a pile of brick and mortar, the former put in in proper condition as regards moisture, the latter made so that pure silicate of lime will be formed, cannot be changed in any way the least particle without cracking somewhere, and every crack however minute, tells us in tones that all should fully understand, that something is wrong and a fall somewhere will follow in time. Then we place timbers, that will not shorten in seasoning, across, firmly securing the ends to timbers running at right angles; often laid in the walls these will decrease in width by seasoning, and is it any wonder that walls and ceilings will persist in cracking at the corners, or that some of the floors will soon become shaky, some hump up and others sink down in places, that the line of shafting will persist in continually getting out of true, windows, shelves and showcases crack, machinery groan and creak, gears eating each other, and belts eternally running off.

But a short walk and limited, but close observation, in any of our cities will show that American buildings are not made to stand the lapse of centuries like some have done in other lands. We have as good and lasting building material as can be found on the globe, but architectural tastes have too often run to the ornate and beautiful instead of to the stable and safe, and so long as our house or mill outshines that of our competitor and neighbor in beauty, grandeur and massiveness, we think little and seemingly care less which will last the longer and stand the strain better. Architects are not alone to blame for this condition of things, neither are the builders or owners, but all together should see that provisions are made for the distinguishing characteristics of building materials, that no building shall be erected without such provisions, and in one decade this stale, stereotyped "Unknown Causes" will become dead matter.

(To be continued.)

Hardwood and Hardwood Finish.*

BY H. V. WAGNER.

I SHALL confine myself principally to the practical side of the question of hardwood finish. It is almost a year since I have been engaged with any work of the kind, and have already become quite rusty. To begin, I think we should consider the very substance of our subject, the wood, its qualifications for the uses it is to be put to, its relation to the color effect of the future decoration of the house, and in many cases its cost. If a man thinks of using hardwood, very likely one of the first questions will be as to the extra cost over pine, as to the future cost of keeping hardwood in good shape. I think there is little question, for if done properly in the first place, it can be taken care of at very little expense. Among the ordinarily used woods are cherry, oak, walnut, birch, sycamore, maple, ash, butternut, redwood, mahogany and a great many fancy woods, such as rosewood, satinwood, ebony, etc.

The latter is very rarely used; I think the market price now being over a dollar per pound. Satinwood is also very expensive, the labor of preparing it costing enormously, as a man must about equally divide his time between sharpening his tools and doing his work. The principal consideration in accepting wood for work is whether it is thoroughly seasoned, as this is one of the things which leads to much trouble in the future. By this I do not mean baked, but thoroughly weather-seasoned, having been cut at least three years and kiln-dried properly under not too extreme heat. There is also an opposite evil in having your wood too dry when it will swell from the dampness usual in new buildings, and create as much, if not more, trouble than when green.

Oak is one of the woods which receives most consideration under this head, as it seems to create most trouble, but when properly seasoned and dried, I have experienced very little with it. I think it the most substantial, and when quarter-sawn, as handsome as any wood we use in our modern houses, especially when it has received an antique finish, when it will remain perfect for many years, age rather adding than detracting from its beauty. It is tough and does not easily mar, which is another point in its favor. By all means avoid using very soft wood, such as butternut, redwood, etc., as I do not think they are worthy of the expense of doing good work with. I have had a very intimate experience with the furniture in my own room, being very partial to mahogany. I found that butternut really made the best imitation. When stained the proper color it could hardly be told from the real. I have been very sorry since, as although not much more than a year old, it has become so marred that it looks as though it might have been used ten times as long. I would like to add right here, by all means avoid all imitations and shams, and if you have a client who wants them, try to convince him that they are wrong and about as shoddy as imitation jewelry or any other object which pretends to be what it is not. In a great many of our fine houses, pine is used for the chamber floors. I think this a mistake, as it could be replaced by a good hardwood at very little additional expense, especially as in many cases where it receives a hardwood finish. I think birch a good substitute which ought not to cost over ten per cent more than pine, as the cost of good wood of either kind is about the same, the extra being in the labor only. In fact, I have done several very fine jobs of pine work, when the

* Paper read before the Chicago Architectural Sketch Club, October 25, 1886.

lumber cost almost as much as cherry. Of course, if the wood is to be painted from a decorative point of view, I suppose pine will answer the purpose. In selecting the wood for different rooms avoid as much as possible sharp contrast, try to have them all in harmony, also use the strongest wood in the rooms most used, as these will receive the most wear, and will be able to stand it best. I think a good selection would be white oak quarter-sawn, antique finish in hall, dark birds-eye maple in parlor, natural mahogany in library, natural cherry in living room, red oak finished, dark in dining room, kitchen and laundry, backhall in oak, and birch for all chambers.

In regard to cost, I think the various kinds of wood can be named in about the following order: Pine, birch, butternut, ash, maple, sycamore, oak, cherry, walnut, mahogany, etc. In making sketches for any work, do not let your artistic desires run away with the practical consideration of the work in hand. Never forget construction; it is the foundation of good work. Do not make a pretty picture only, but think how it can be made substantial. I have been called on to estimate on architects' designs which looked more as though they were intended for masonry than wood-work. I have a mantel in mind which had to be made with very heavy lumber, there being no possible way of framing it. Of course such work will not stand, and in this case especially it did not. Being of oak, it was less than a year later that I was called on to repair it. Have all work constructive, that is, so it can be paneled and framed, as the framing, if properly done, will stand, and the panels are free to shrink and swell without danger of damage.

In making the drawing for a whole house, it will be well to remember that it will have to be taken care of, and the simpler the work, the more readily this can be accomplished. Seek beauty in form rather than in elaborate detail, have carving in the proper place, but do not because it is cheap, have all your work full of beads, cuts, grooves, engraving, etc. A handsomely grained piece of wood, with plain surface, is much better than an inferior piece loaded down with gingerbread decoration. Avoid applied ornaments, rosettes, etc. A cabinetmaker will, in nine cases out of ten, think a little glue is sufficient to hold them in place forever, but he is mistaken. I have had much trouble to get these things properly done, and came to the conclusion that it was best to drop them and run no chances of having your clients coming to you and saying that their work is falling to pieces. In making an odd piece of furniture, you may spread yourself on detail, but I think the foregoing remarks will hold good when planning a finish for a whole house.

There are a few things I would like to say about mantels. A great many manufacturers and architects seem to forget that parties buying mantels expect to use them, and that they should be constructed so that there is no danger of fire or necessity for getting all the pans and kettles in the house to protect it, as a friend of mine had to do with her dining room mantel. The projections beyond the tile work should be very little, so that direct radiation would not affect them.* In a mantel with six inch tile facing there should not be more than one or two inch projection, with twelve inch facing it might be double. The lower shelf and sides also should not come too near brickwork of fireplace; also bear in mind the size of opening, so that a certain size of tile will exactly fit it.

To make a good finish be careful to have the wood very clean and smooth, as no amount of finish will overcome this if neglected at the start.

The wood should be properly filled with Wheeler filler, or any other of equal merit, and then given three coats of lard oil and rubbed down to a smooth finish. If a fine finish is required, give the work two coats of shellac, each sandpapered, then give it three coats of lard oil, rubbed between coats, when the result should be as near perfect as it can be made; this kind of finish is advisable, as it will stand dampness. It can be cleaned with a damp cloth without injury. Another way of doing very good work is to use five or six coats of shellac, which will give a very good result, only that it will not stand dampness, turning white. The only kind of staining advisable is to darken oak to make it appear old. This is done in various ways. Aniline or color stains, I think, are not advisable, as they will fade and look very bad in a short time.

In regard to styles of work there are a large number, all of which have their good and bad points, and any of which, when carefully used, will give good results. There is only one to which I particularly object, that is the finishing of a room in white and gold. I think every circumstance of our daily life, climate and present age is against this style of work. In the first place it will be a most difficult task to keep such a room looking respectable, particularly in a smoky city, and then the contrast to our generally rich decoration and natural wood is far from pleasing. Then imagine a company of ladies and gentlemen in dark, rich colored attire of the prevailing fashions of the day, and you can picture to yourself the extreme absurdity of the fashion in 1886. It may have been all right with powdered wigs, silk and satin of very light colors, etc., but today I think we should avoid this kind of work. Do not choose a distinct style for every room in the house, even though money is no object, make the whole effect restful and a place where every nook suggests comfort and ease and not rigid formality or excite the curiosity of a museum.

The Chicago & Alton railroad as a route from Kansas City and other Missouri points to Chicago, St. Louis and the east, offers advantages that are not and cannot be equaled by any other. Its trains start from the Union depot in Kansas City after the arrival of trains from the West and run through St. Louis, Bloomington and Chicago, where connections for all points further east are made in union depots. The Chicago & Alton is the only line running palace dining cars to and from Kansas City. It makes no extra charge for seats in elegant and comfortable palace reclining chair cars, which are run on all trains. It runs the newest and most superb Pullman palace sleeping cars. There is no change of cars of any class between Kansas City and Chicago, and Kansas City and St. Louis, and St. Louis and Chicago. Tickets via this popular route are on sale at all coupon ticket offices in the United States.

* See article and diagram by Francis Le Baron, in Vol. III, No. 4, page 48, INLAND ARCHITECT AND BUILDER.—ED.

Association Notes.

WESTERN ASSOCIATION OF ARCHITECTS.—Convention will be held November 17, 1886, at Chicago. John W. Root, Chicago, secretary; W. L. B. Jenney, Chicago, secretary of foreign correspondence.

ILLINOIS STATE ASSOCIATION OF ARCHITECTS meets the first Saturday of every month, at 15 East Washington street, Chicago. Annual meeting first Thursday in October, 1887. Clarence L. Stiles, Chicago, secretary.

INDIANA STATE ASSOCIATION OF ARCHITECTS meets on the fourth Wednesday of January, April, July and October of each year. Annual meeting fourth Wednesday in October. E. H. Ketcham, Indianapolis, secretary.

MISSOURI STATE ASSOCIATION OF ARCHITECTS meets at St. Louis on the second Tuesday in January, 1887. Thomas B. Annan, St. Louis, secretary.

KANSAS CITY SOCIETY OF ARCHITECTS meets Monday afternoon of each week, at 4 o'clock. Annual meeting second Saturday in April, 1887. F. B. Hamilton, secretary.

BUFFALO SOCIETY OF ARCHITECTS meets first and third Tuesdays each month. W. W. Carlin, secretary.

THE ARCHITECTURAL ASSOCIATION OF IOWA, annual meeting, second Wednesday of January, 1887. C. H. Lee, Des Moines, secretary.

THE ARCHITECTURAL ASSOCIATION OF MINNESOTA meets every other Tuesday at Minneapolis and St. Paul alternately. Annual meeting January 4, 1887. Irving W. Kelley, Minneapolis, secretary.

KANSAS STATE ASSOCIATION OF ARCHITECTS meets at Topeka on the third Tuesday of January, 1887. H. M. Hadley, Topeka, secretary.

ASSOCIATION OF OHIO ARCHITECTS meets semi-annually. Next meeting third Thursday in January, 1887. O. C. Smith, Cincinnati, secretary.

ASSOCIATION OF TEXAS ARCHITECTS meets at Austin on the third Tuesday of January, 1887. S. A. J. Preston, Austin, secretary.

NEBRASKA STATE ASSOCIATION OF ARCHITECTS meets first Wednesdays in January, April, July and October each year. F. M. Ellis, Omaha, secretary.

THE CHICAGO ARCHITECTURAL SKETCH CLUB meets every alternate Monday, Builders' and Traders' Exchange. W. G. Williamson, secretary.

THE WESTERN SOCIETY OF ENGINEERS meets the first and third Tuesdays of each month at 4 o'clock P.M., at 15 East Washington street Chicago.

THE MASTER PLUMBERS' SOCIETY, of Chicago, meets first and third Wednesdays of the month, 7:30 P.M., at 15 East Washington street.

THE ANNUAL MEETING OF CHICAGO ARCHITECTURAL SKETCH CLUB.

The annual meeting was held on the 8th inst., about thirty members present. The minutes of the previous annual meeting were read by the secretary, who also read his annual report which briefly reviewed the work of the year. The treasurer presented a partial report, and Robert Williamson and E. O. Christian were appointed to audit and report at the next meeting. The election of officers being next in order, Harry Lawrie was reelected president; Geo. Beaumont, first vice-president; Irving K. Pond, second vice-president; W. G. Williamson was reelected secretary; Mr. C. A. Kessell was unanimously reelected treasurer, but upon his declining, and his reasons for so doing being accepted, C. W. Trowbridge was elected treasurer. Two members elected to complete executive committee were F. O. Frankel and M. G. Holmes.

The following notice has been circulated among the members, and was read by the president.

LIST OF DRAWINGS REQUIRED FOR THE EXHIBIT OF THE CHICAGO ARCHITECTURAL SKETCH CLUB, NOVEMBER 15, 1886.

- The drawings will be divided into the following departments:
1. The club drawings exhibited at the Industrial Exposition at Minneapolis.
 2. Pen and ink drawings of buildings in perspective.
 3. Water-color drawings of buildings in perspective.
 4. Miscellaneous sketches in pen and ink.
 5. Miscellaneous sketches in water color.
 6. Sketches from nature (buildings, landscapes, etc.), in pen and ink, and water color, etc.
 7. Sketches from photographs of foreign buildings.
 8. Sketches from photographs of domestic buildings.
 9. Club competitive drawings.
 10. Sketches in pencil made at club meetings and others.
 11. Sketches in oil.
 12. Initiation sketches.

NOTE.—As very few of the charter members have fulfilled the letter of the by-law relating to initiation sketches, we would propose that each member submitting sketches, place one with this group.

READ THE FOLLOWING CAREFULLY.

No drawings except those made by club members to be accepted. Drawings to be framed or not, at the option of the contributor. All color, or pen and ink copies, to be excluded. Drawings must be delivered to the secretary of the club, 157 La Salle street, room 107, on or before November 12.

In order that this exhibit may be as large and comprehensive as possible, each member is requested *not* to select, but send as many finished drawings or sketches as possible.

In order that drawings may be properly catalogued, a complete list of drawings must be presented with them when they are handed in, and each drawing marked *on the back* with name and address of the owner. No drawings received after the 12th inst. can be catalogued.

By order of the Executive Committee C. A. S. C.

W. G. WILLIAMSON,
Secretary.

HARRY LAWRIE,
President.

After a general discussion in regard to arrangements for the social meeting of the club on the 15th inst., the meeting adjourned.

INDIANA STATE ASSOCIATION.

By mistake, the name of Bernard Vonnegut, of Indianapolis, was omitted from the list of accredited members present at the convention, October 21. A printed copy of the constitution and by-laws has been received, with the seal of the association, which was sketched by Mr. Vonnegut and adopted by the Executive Committee. It is a head of Minerva, goddess of the arts and sciences, encircled by the name of the association, the emblem of the triangle and dividers, and also fragments of architectural details, were intentionally avoided because so much used in the seals of masonic societies. It is a very chaste and pleasing design.

REGULAR MEETING OF THE ILLINOIS STATE ASSOCIATION OF ARCHITECTS.

The meeting was called to order Saturday, 6th instant, at 1 o'clock P.M., the date of the meeting having been changed to the first Saturday in each month by the new Executive Committee. After the discussion of a lunch which was in every way a credit to the new regime, the meeting was called to order, President Adler in the chair.

The minutes of the previous meeting having been read and approved, the president called for the report of the Executive Committee of the Western Association, and Mr. John W. Root, chairman of the committee spoke as follows: It has been deemed desirable that we should now look into the future and see what is to be done in a permanent way for the association. We have thought that we should know sufficiently well where we are to remain as to warrant the Executive Committee in taking such steps as are necessary for the accumulation of a library; for the storage of such pictures and books as may be contributed by the various members of the Illinois State Association and, in a general way, for the making of the quarters of the association what they should be. We all look forward to the time when the rooms of the association shall become more or less popular as headquarters for the draughtsman as well as the architect, so that during the day they will not be entirely deserted; and in this view we have thought that it is probable members of the association would be very glad to contribute books, photographs of their own work and of others' work, etc.; and we are also of the opinion that there are a great many members of the association who might be approached individually, and perhaps would be very glad to contribute considerable sums in one way or another, which could be expended by the committee specially appointed for that purpose. Then, it has seemed to us that ultimately there must be somewhere in Chicago a permanent headquarters of the Western Association as such, just as the American Institute has a permanent headquarters.

Special committees have been appointed, among them an Executive Committee, to look up all the details relative to these particular matters, and as soon as these committees have reported and we are in a position to formulate a report we will do so, so that the bulk of our present report simply states matters in progress.

The President: Mr. Root will perhaps also state what has been said in the Executive Committee in reference to subjects for discussion at the future meetings of the association.

Mr. Root: The Executive Committee, among themselves, have discussed the matter alluded to by the president. At present each member of the association is preparing a list of subjects for the year. When we meet next week we will have these lists of the various individual members discussed, and the result will be the preparation of a programme which we hope to carry out for the year. We are inclined to think that if the subject for discussion at a particular meeting is fully decided on before, suitable preparations can be made, and frequently those who should be present to take charge of the matter will have had time to do so. In this scheme which we propose, we have the idea of appointing two persons to lead in the discussion, these persons to be informed beforehand.

The President: I believe the Committee on Revision of Sanitary Law is prepared to make a report.

Mr. Baumann: The committee beg to be excused for having taken so long a time in this matter. The subject has been particularly difficult and complicated. We tried first, as is well known, to get up a law in which some of the different departments be consolidated. We found very soon that the thing was impracticable, and we had to abandon it. Then we fell back upon the idea of making up a special law—special regulations in regard to it, such as were proposed by Commissioner DeWolfe here. We took it to Mr. Genung, who went carefully through it, and we discussed it at five or six meetings, and, at last, agreed upon a form, which we have arranged as well as possible for the present.

Then, Mr. Beach has also prepared a law of some kind—in a different way from what we first proposed, but similar to it—which will come before the legislature in case this first one is defeated or laid on one side and that will take up the matter as at first contemplated, only in a very much milder, and, I will say, looser form. Mr. Beach will now read you the papers prepared.

The President: I will say in explanation of the two bills about to be read that one embodies the ideas of the health department of the city, who believe that it will be impossible to enforce a law that is not general in its provisions, and that it is absolutely necessary to have a law making specific provisions for each individual matter to be controlled. It is, of course, much more desirable to have an elastic law—that is, the right to regulate sanitary construction from time to time, and amend the law as may be necessary in view of recent discoveries, etc.

In framing the two laws—the one in accordance with what we think is most desirable, and the other in accordance with what seems to be most practicable—we have kept in view the necessity of excluding from the law that which determines specifically what shall hereafter be considered good sanitary construction, and about which there is any material difference of opinion among sanitarians. We have endeavored to formulate into the proposed law only those matters concerning which all of us are in harmony, and to exclude everything concerning which there is dispute. On that account we found it necessary to exclude many paragraphs from the law as it had been originally proposed by the health commissioners.

This bill which will be the basis for special discussion at the December meeting was read by Mr. Beach, as follows: It is entitled

An act to provide for the regulation and inspection of the sanitary construction and alterations or modifications of buildings in cities and villages, and to secure proper ventilation and sewerage systems for habitable buildings, and declaring certain things to be nuisances, providing penalties and for the issuing of injunctions in certain cases.

Be it enacted by the People of the State of Illinois represented in the General Assembly:

SECTION 1. It shall be the duty of the owner or other person interested in the contemplated erection or alteration of any building within the corporate limits of any city or village in this state in which there is established an officer or department of health to obtain from such officer or department a blank entitled "Description of Building," and fill the same in a manner fully describing said contemplated building, with its plumbing and sewerage fixtures, and to submit such description to the said officer or department for examination and approval, which approval shall be granted only upon condition that assurance direct and implied is by said owner or said other person given to said officer or department of health that the sanitary conditions of the building will be, when completed, in accordance with this act. And in case the said building intended to be erected (or extensively modified) be for purposes of habitation then and in such case a full set of drawings, showing locality and arrangement of plumbing, sewerage and all other sanitary arrangements to be provided in the said intended building shall by said owner or other person (or the architect or plumber of said owner or person) be submitted to said officer or department for action as above set forth before any portion or part of the said building shall be commenced or modified.

SEC. 2. No building permit shall be granted or issued by any officer or building department in such city or village before the approval provided for in Section 1 of this act is obtained (in the manner provided in said section), and presented by said owner or person to said officer or department.

SEC. 3. The person executing the plumbing work, or causing its execution, in any such building other than mere repairs, shall (before in any way concealing or allowing such work to be concealed) notify, in writing, the said officer or department of health to the effect and substance that the said plumbing work is then and therein the state of completion and shall allow such officer or department a full day's time after said notice (not including Sunday) for the proper inspection of and officially passing upon said work.

SEC. 4. Every habitable building hereafter erected in any such (said) city or village shall have its ground floor covered with a firm stratum of cement and gravel or asphaltum concrete not less than three inches in thickness.

SEC. 5. A habitable room in any building shall have one or more windows of dimensions not less than one-tenth of the area of floor space of each room, and an open space or light shaft shall be established for such window or windows, and shall have an area which, for a three-story building, shall equal not less than one-sixth part of the area of rooms and halls thereby to be aired and lighted. Such minimum size shall receive or have an increase of five per cent for each and every additional story of building.

SEC. 6. Every skylight hereafter constructed in any such building shall be permanently ventilated through openings or air ducts in or near and extending at least one foot above its top, and the area of such ventilating openings shall not be less than one twenty-fifth part of the area of skylight opening.

SEC. 7. A habitable room in any building hereafter erected in any such city or village shall not be less than eight feet in height between joists of floor and ceiling, nor shall its floor be located more than three feet below the established inside grade at the line of the lot of land upon which said building is or is to be erected. No such room (except an attic room) shall be established in any present building heretofore erected unless the said room be established and constructed in accordance with the requirements of this Act, provided, however, that in buildings heretofore erected an attic room may be ten inches less (at its lowest point) in height than said eight feet.

SEC. 8. Every water-closet or bathroom hereafter constructed in any such city or village shall have permanent automatic ventilation through an independent air shaft not less than one square foot in its cross section. Such shaft shall extend not less than two feet beyond the surface of roof and be not below any peak, observatory or other construction upon the roof thereof that may be located within twelve feet of such shaft, and such closet or room shall be lighted by a window either in an exterior wall of the building or in a light shaft constructed for the purpose, or by facing a general light shaft or any adjoining room which said window shall (in said last mentioned case) be stationary.

SEC. 9. No privy vault of any kind shall hereafter be constructed or allowed by the owner of any lot or lots of land situated in any such city or village to remain in any building, or upon any lot of land adjacent to a street or alley on which there is a public sewer established in front of or adjacent to said building or lot.

SEC. 10. No alterations, additions or modifications which will change or alter any or all of the sanitary conditions or arrangements in any building erected or located in any such (said) city or village, shall be made, except upon prior express approval, in writing, of the said officer or of the said department of health. Nor shall any additional structure be erected upon any lot of land situated within such city or village upon which there is already a building erected without such approval, and a special permit in writing from said officer or department.

SEC. 11. All sewerage drains hereafter laid in such city or village shall be laid with a uniform decline of not less than one-tenth of an inch to the foot, and there shall be constructed by the owner of any such building a trap and adjacent air inlet in connection with the drainage system of each building, where such drainage system is located, either wholly or in part without such building, said air inlet shall be located outside of said building, and shall be kept clean and unobstructed. The

entire sewerage systems in any such building hereafter erected shall be so constructed as to allow ready and complete inspection at the time of its completion.

SEC. 12. Metal sewage drains and soil pipes, if not enameled or made of non-corrosive material, shall be covered inside and outside with a coat of asphaltum, and all their joints and connections shall be made absolutely airtight by means of molten lead or similar metal, or by means of molten asphaltum, either with or without an intermixture of sulphur.

SEC. 13. Every soil and every waste pipe hereafter constructed and placed as such in any such city or village, shall be of cast-iron, or brass or porcelain, and when such pipe is put up for use, it and the joints thereof shall be capable of sustaining an internal pressure of not less than fifteen pounds to the square inch of surface.

SEC. 14. The in-take ends of all drains and their branches in any building shall be curved to correspond with an inner radius of not less than twelve inches, so as to properly meet the horizontal drain and the perpendicular waste and soil pipe, and form an airtight connection with them, and there shall be near the lower end of such curved piece a hand-hole with airtight covering.

SEC. 15. The use or construction of any kind of pan water-closet in any building in such city or village is hereby declared to be a nuisance, and the use thereof is hereby prohibited. All water-closets used in any story of such building or buildings above the basement story shall be so constructed as to be connected with and flushed by means of a tank or tanks.

SEC. 16. No chimney flue of water leader-pipe shall be used for conveyance of exhaust steam or for ventilating soil or waste pipe.

SEC. 17. All sewerage and plumbing work in all buildings hereafter constructed in any such (said) city or village, shall be executed in a thorough manner satisfactory to the said officer or department of health, and all drains laid in any such building, shall be laid with the joints thereof made capable of resisting the water pressure resultant from filling the said pipe with water to their intake ends, and it shall be the duty of said officer or department, as the case may be, to make suitable and efficient tests as to the quality of all such work, and to test all soil, and waste-pipes when put up for use in any building, by subjecting them to an internal pressure of 15 pounds to the square inch, and to test all drains by filling them with water to their intake ends.

SEC. 18. Every water-closet, sink, and other plumbing fixture placed, and provided in, and for the use of any building hereafter erected in such (said) city or village, shall be connected with the sewer and provided with efficient trap, sufficient to prevent at all times the passage of air through the pipes from the sewer to the said fixtures, and no trap shall be placed and constructed at the foot of any water, soil, or ventilating pipe, and said plumbing or plumbing fixtures and pipes, shall be so constructed as to permit at all times without obstruction, the passage of a current of air from the air inlet mentioned in Section 11 of this act, below through all pipes last mentioned.

SEC. 19. Overflow guards or safes to any fixture or fixtures, and all refrigerators, shall have independent wastepipes, and shall not be connected with the drainage system.

SEC. 20. No grease-receiving basins or cesspools of any kind shall be constructed and placed for use within the walls of any habitable building hereafter erected within any such (said) city or village, nor shall any grease-receiving basins or cesspools heretofore constructed in any habitable building in such (said) city or village, be allowed to remain thereon or therein longer than thirty days after this act shall go into effect. In all cases when the area of a building erected or to be erected in such (said) city or village, shall occupy the whole of its lot, such grease-receiving basins shall be constructed under the sidewalk or underneath the surface of the alley, if any such there be adjoining the premises upon which said building is situated.

SEC. 21. No lead pipe shall in any building hereafter erected in any such (said) city or village, be connected with an iron pipe except by means of a metallic ferrule or other means expressly approved by the said officer or department of health.

SEC. 22. No duct or flue for admitting air to an apparatus intended for warming, shall be concealed below the concrete under the lowest floor of any building.

SEC. 23. Said officer, or any duly authorized officer of the said department shall, so far as may be necessary for the performance of his or their said respective duties therein, have the right to enter at any and all reasonable hours in the daytime, any building or premises in such (said) city or village.

SEC. 24. Any person violating any of the provisions of this act, or any said owner or officer who shall neglect or refuse to comply with any of the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof in any court of justice, shall be fined not less than two hundred and fifty dollars, and not more than five hundred dollars; recovery to be had in the name of and for the use of the city in which the offense shall have been committed or incurred.

SEC. 25. Any person convicted and fined as mentioned in section 24 of this act, who shall for the space of twenty-four hours next ensuing after being so found guilty by said court, fail to comply with the requirements of this act, or of any provision or requirement thereof, shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of justice, shall be fined in a sum of money not exceeding five hundred dollars.

SEC. 26. The Circuit Courts of this state and the Superior Court of Cook county are hereby authorized and required to issue, upon due application of any officer or department mentioned in Section 1 of this act, or of his or its duly appointed agents, in the name of said officer or department, an injunction restraining and preventing the use and occupation of any such (said) building or structure which is or shall hereafter be erected, altered or maintained, or the sewerage system of which shall be constructed, altered or maintained (or any portion thereof) used in violation of this act, or any of the provisions thereof.

SEC. 27. Any and all laws of this state in conflict with this act are hereby repealed.

The President: I would suggest the correction of two ambiguities in the above paper. One is in reference to making soil or waste pipes capable of resisting the pressure offered by a column of water 15 feet high. Of course, the pipe, as put into a building, means its joints, and as here read, it might mean only the pipe itself. The other is in reference to a free circulation of air through the soil and waste pipes from the inlet pipe below—from this is meant the inlet pipe inside of the trap and outside of the building. We will endeavor to correct both of these, so that there can be no misunderstanding.

Mr. Beach: In explanation of this second paper I am now about to read, I will say: this bill was drawn with a view to the fact that, as I am told, this matter of sanitary engineering is improving from day to day, and what may be considered good today, tomorrow may be found a little remote. The difficulty in the way of preparing a bill for obtaining a proper drainage system, is that we may fix by statute upon the people a law which is not at all desirable, but which in the course of a year, instead of being a benefit, may really be an injury. This bill has been drawn with a view to enabling the persons in charge of building operations to exercise sound discretion, based upon the evidence of men experienced in knowing what sewerage system is the best—that is, from time to time.

[After further careful consideration of this bill by the committee, it was decided to drop it, and place the first presented only before the association at its next meeting for consideration. The printing of this bill is omitted.—Ed.]

The President: Gentlemen, you have heard the two ordinances as prepared by your committee. Your action in reference to the same, to either or both, of course is only tentative. We cannot make these proposed laws parts of the statutes of the state; all we can do is to indorse one or the other, and secure some friends for it, as we possibly can, and urge its passage upon the state legislature at its next sitting. While the second ordinance read is probably the one best calculated to secure a thorough and radical reform in the sanitary construction of buildings, give the greatest possible power to the commissioner, and also give him the discretionary power which he has not in the first bill; yet the committee is aware of the fact that in urging the passage of this enactment, it will probably meet with the opposition of the heads of departments in the administration of the city of Chicago, owing to the fact that this creates practically a new department, which has the power to control many things that are now within the control of these respective departments. It is for you to determine whether we shall endeavor, notwithstanding the fact that in urging the passage of this law, we will have to do so without the assistance of the local officials, and perhaps against their opposition—it is for you to determine whether we shall do this anyway, for the purpose of securing the best possible law that we can pass; or, whether we shall favor the passage of the first ordinance read, relying upon the assistance and support of the department of health, of the department of buildings, of the department of sewerage, etc., and thereby having a little better chance to secure favorable action by the legislature. Whichever draft or ordinance you determine to support, it will be necessary, probably, to appoint a committee whose duty it shall be to secure, first, the cooperation of as many of the officials interested in the execution of the law as possible; and, secondly, the assistance of prominent citizens, say the Citizens' Association, and also the Union League Club, which, as we know, is quite influential with the state legislature; and, finally, that as many members of the legislature from Cook county as possible be induced to promise support of the law. It may be necessary for such committee to go to Springfield for the purpose. It will also be necessary that each individual member of the association make it his business to create as much public opinion as possible in favor of the passage of whatever law the association desires to recommend; and it would be well, therefore, if this matter were carefully considered by you before determining whether it is policy to recommend the passage of both equally, leaving it to the wisdom of the legislature to make the selection, or whether it is best to pin our faith upon one or the other, and push that forward with all our might.

Mr. Baumann: It is necessary to have both of the prepared bills go before the legislature. There is always a committee appointed to whom these matters are referred, and it seems doubtful whether this committee would indorse any such bill as was first read here today. There are too many specialities in it which this Legislative Committee—generally composed of lawyers, principally, as I understand it—would not favor, they would, as Mr. Beach thinks, probably favor more the second one. However, inasmuch as the departments here favor the first bill rather than the second, it would seem better to try to get the first one through, using all possible means, and with their assistance; and then if it is found that the Legislative Committee is against that, then we can say: "Here is the other bill; if you cannot let the first through, then let the second pass," and in that way we have something. And it was with that idea that the two bills were prepared as they are.

Mr. Randolph: Has the former bill been printed, or either of them?

The President: No, sir; they will be, shortly.

Mr. Randolph: I see many things in the last bill that strike me more favorably than the first bill, but still I see things in the last one which may prove fatal to its passage. I make the motion that we leave further discussion of the matter today, giving us more time to consider it, and that it be made the special order of business for our next meeting.

The President: It is moved and seconded that the bills, as presented by your committee, be published in the official record of our transactions, and be made the special order of business for our next meeting. Carried.

After some further statements by the president and others, in regard to arrangements, etc., the meeting adjourned.

AN illustrated paper on a far-reaching question to which *The Century* has lately given much attention, is "The Need of Trade Schools," by Colonel R. T. Auchmuty, founder of the New York trade schools, who, in that magazine, discusses his subject with reference to what is being done in this line of progress in different parts of the world.

Our Illustrations.

Designs in ornamental ironwork by the Harris & Winslow Company, Chicago.

Competitive design for Kansas City Chamber of Commerce, by S. S. Beman, architect, Chicago. The design was intended for stone construction, and the cost estimated between \$500,000 and \$600,000.

Residence for Felix Bahlmann, Walnut Hills, Cincinnati, by George W. Rapp, architect, Cincinnati. The building is situated on the west side of Woodburn avenue, Walnut Hills. Its exterior is built of cherry-red brick, laid in brown mortar and Ohio freestone trimmings. The roof is slate, and the building is finished throughout in clear yellow pine varnished. Bronze hardware used in the entire building. Total cost of building about \$11,000.

Woodlawn school house, at Woodlawn Park, Illinois, M. L. Beers, Chicago, architect. It is two stories and basement in height, and arranged for eight rooms of sixty pupils each. The size of the building is 84 feet 4 inches by 82 feet 2 inches. The exterior is constructed of stone, pressed brick, and terra-cotta, and covered with a slate roof. It will be finished in Georgia pine and red oak, and will have Georgia pine floors. Each side of the entrance ways will be lined with a wainscoting of glazed brick, and all principal entrance doors will be of red oak. Particular care has been exercised in the lighting, heating, and ventilation, to make it one of the best schools of its kind in the state. It will be ready for occupancy September 1, 1887.

Entrance for Allegheny Cemetery, at Pittsburgh, Pa., by Architects Henry A. Macomb and John J. Dull, of Philadelphia. This cemetery, one of the largest and wealthiest in the country, having been recently enlarged by the purchase of a handsome piece of property extending about 600 feet along Penn avenue, decided to build a new entrance fronting on this thoroughfare. Invitations were sent to architects throughout the country offering a premium of \$1,000 for the best design, and a large number of drawings were sent in for consideration by the board. The premiated design which is illustrated in this number is one of two submitted by the above architects. The buildings consist of a reception room and dwelling for the gatekeeper on one side of the entrance, and a square tower on the other, containing an office in the lower story, the two being connected with the gateway in the center by covered passages. The extreme frontage is 120 feet, of which the tower and reception room occupy 25 feet each, and the gateway 30 feet. The material is granite, backed up with hollow brick walls, the general wall facing being laid up in squared broken range work with quarry faces. The roofs will be covered with red tiles. The plan shows the arrangement of the first floor, the second story of dwelling contains bedrooms and the upper part of the tower is only occupied by a stairway giving access to the open stage top. The floors of the arcaded passages, reception room and office will be laid with tiles on brick arches, and the interior finish of those rooms, the water-closet and ladies' toilet, will be of quartered oak, with paneled dados, the walls above being plastered with sand finish floated. The reception room will have an open timbered roof, a large open fireplace, with oak mantel, and stained glass windows. The office will have a paneled ceiling. The dwelling will be simply finished.

Endolithic Marbles.

A MATERIAL for interior ornamentation, which has as yet been little used in the West, and the beauties and possibilities of which have not as yet been appreciated according to their merits in the East is endolithic marble. No applied ornament becomes so intimately a part of the structural as this, reviving, as it does, the colored marbles of the ancients, and upon a basis of white marble securing the permanent imitation of all the marbles of the world.

An American chemist, named Hand-Smith, discovered how to affect slabs of Carrara so that the colors would penetrate to any given distance, and the surface take any amount of polish and sustain all ordinary wear and tear of weather and rubbing. Further improvements have been made on the Hand-Smith process by the chemists of the American Endolithic Company of New York, so that whereas it was possible to treat chemically a fine white marble so as to reproduce, chemically as well as visibly, all the important colored marbles, it is now possible to paint a marble surface with the "endolithic" pigments, and then burnish the surface like a mosaic. It need not be said what an economy of money and time this curious rediscovery and perfection of an ancient art effects.

Since marble is now so largely used in decoration, this process renders any decorative scheme possible, tints being matched to order. The permanence of the tint is beyond peradventure, since, if it is not destroyed by the nitric acid used in polishing, it may be expected to defy lesser ravages of time and wear. The color is layed on the marble in the usual way, using the endolithic paints. The marble thus treated is placed in ovens and surrounded by a chemical atmosphere; and by gentle warmth and moisture the paint is made to penetrate the marble as deep as desired. After the color is thus fixed, the marble is polished. There seems to be no limit to the way in which the marble can be used.

Not only imitating fine marbles, and giving to architects and designers a variety of colored marbles known only to the Greeks and Romans, it goes into the realm of painting, and the artist can there perpetuate his work in enduring stone. In ecclesiastical painting endoliths will be largely sought for. Pictures of saints may be now had, that are not only artistically beautiful, but as durable and indestructible as the walls of the church they may be built into, as well as altars, baptismal-fountains and holy-water stoups, which can be made of the richest and rarest marbles, or combinations of the same, while vestibules, aisles and sanctuary floors can be covered, not only with beautifully colored marbles, but can also be worked into beautiful designs.

The value, beauty and variety of the material can only be understood by seeing it. The principal work in the West is that used in the remodeling of the Plankinton House, Milwaukee, but the handsome offices in

charge of William H. MacHarg, in the Commercial Bank building, Chicago, display many handsome and convincing samples showing many of the possibilities of endolithic marble work. Architects visiting the convention are cordially invited by Mr. MacHarg to call, an invitation that should be accepted by every architect who is interested in the artistic progress of the age, for aside from its vast practical utility, this is almost the one decorative material that will appeal to his artistic feelings, and at the same time awaken his enthusiasm, because of its almost limitless adaptability.

Mosaics.

THE Georgia Marble Company, Chicago, has removed to 103 Dearborn street, where they have fitted up handsome offices and present a beautiful variety of their product.

THE Smith & Egge Company are making to order an admirably balanced steel pinioned pulley, to be used with No. 1 Giant metal chain, in the new Marshall Field warehouse.

A NEW composition for plastering walls is being introduced. It is of the nature of cement, and takes the place of mortar and hair plaster, and has among other properties that of drying quickly and becoming very hard, hence its name, adamant. It is claimed that it does not crack and is not injured by leaky roofs or bursted waterpipes. It is introduced by A. W. Curtis, at present located at 15 Washington street.

THE Hawley laundry dryer and conveyor has become very popular, and is being placed in many of the finest residences in this city. Contracts are now in hand for one to be put into Mr. N. B. Ream's residence, 1901 Prairie avenue; one for Mr. C. W. Brega, Michigan avenue, near Twenty-ninth street, and for Mr. N. S. Jones, Lakeshore drive and Bellevue place. Mr. E. B. Sheldon's three houses on Ontario and St. Clair streets, are also furnished with these dryers.

ONE of the most attractive places for the visiting architect during the convention, and of which he will make a special note in his list of places he desires to see at that time, is the display of gas fixtures at the Archer & Pancoast western headquarters, 250 Wabash avenue. The manager, Mr. Willard, has arranged, in heavily-draped, brilliantly-lighted apartments, probably the largest and most varied display of the finest metal work this country possesses, and no architect should fail to visit, and make note for future use, this superb exhibit of the metal-workers' art. Every grade of price is represented, but each fixture is stamped with the true artists' conception of fitness and true design, the best artists in metal being employed in their manufacture.

BEGINNING Sunday, October 31, 1886, a *New Fast Line* to St. Paul and Minneapolis will be opened from Chicago, Peoria and St. Louis, via the "Burlington Route"—Chicago, Burlington & Quincy Railroad—in connection with the newly completed Chicago, Burlington & Northern Railroad. Over it a double service of through trains will be run, making as fast time as is made over any other line between the same points. The new and elegant equipment composing these trains, which was constructed especially for service on this new line, will include Pullman sleepers, "Burlington Route" dining cars, and comfortable passenger coaches. From both Chicago and St. Louis through coaches, dining cars and sleeping cars will be run; and from Peoria, through coaches, connecting at Rio with the through equipment from St. Louis. For tickets, rates and general information concerning the "new fast line" to St. Paul and Minneapolis, via the Burlington Route, call on or address any railroad ticket agent, or Paul Morton, G. P. and T. A., C. B. & Q. R. R., Chicago.

THE cosiness of a grate fire is becoming every day more appreciated as the fall days approach those of winter, and the attention of those building, or about to build, or contemplating repairs, is naturally divided to the proper selection of fireplaces, mantels, grates and their accessories. The architects who visit Chicago in attendance upon the convention of the Western Association will be expected to return home with well defined ideas upon the latest and best in mantels and grates and artistic tiling. Anticipating this, The Henry Dibblee Company, of 266 and 268 Wabash avenue, have issued a general invitation to architects to visit their exhibit of these materials. As will be seen by their advertisement on last page of cover their display completely covers this important item in house furnishing. Their wood mantels show true artistic and architectural ability in design, and in their tasteful finish, either in plain or elaborate work, the accomplished workman is recognized. Well worth more than a cursory inspection is the department devoted to Lowe tiles. At the first glance one observes the expression of unity between plastic tile and carved woods when combined by skillful artists. A mantel facing of concave tile twelve inches square, showing exquisitely modeled flowers and a flight of swallows in full relief is one of the most elaborate, others in flowers, birds, etc., and meanwhile noting the general tendency to large tile occupies the attention of the visitor. For a plain, rich, but inexpensive facing a design composed entirely of geometrical figures is shown. These tile not only surround the grate, but extend to the ceiling, forming a framework for a beveled plate mirror set in antique brass. Other designs, both in wood mantels and in Lowe's tiles, too numerous for mention, show the resources of this house. Nor in this connection should the wrought-iron fireplaces shown here be forgotten, some of the best being designed by Vedder. A new article in artistic metal work is Holling's extension hall and library lamp. These lamps, exquisite in workmanship and covered by large lace shades, are most effective. They rest on tripods four or five feet high, and can be moved to any part of the room, which, with the soft light and artistic appearance, will make their adoption general, especially for library use. In anticipation of visits from architects, The Henry Dibblee Company have purchased D. Appleton's Artistic Houses, a book of photographs of interiors, and the largest work of the kind ever presented in this country, containing, as it does, about eight hundred interiors. Altogether, an hour could not be more profitably spent than in visiting The Henry Dibblee Company's exhibit.

Are you going to New Orleans or Florida? If so, you can go via the Monon Route via Louisville or Cincinnati, and see the Mammoth Cave, Nashville, Blount Springs, Birmingham, Montgomery, Mobile and the Gulf coast for the same money that will take you through the dreary, uninhabited Mississippi swamps; we are confident you cannot select a line to the South enjoying half the advantages that are possessed by the Monon Route and its southern connections. No one should think of going south without visiting the Mammoth Cave, the great natural wonder of this continent. So much has been written of this world famous wonder that it is impossible to say anything new in regard to it. This trip can now be made all rail, as the railroad has just been completed to the cave from our connection below Louisville. From Mobile to New Orleans (141 miles) the ride along the Gulf coast is alone worth the entire cost of the whole trip. When you decide to go south make up your mind to travel over the line that passes through the best country, and gives you the best places to stop over. This is emphatically the Monon Route, in connection with the Louisville and Nashville and the Cincinnati Southern railways, Pullman palace sleepers, palace coaches, double daily trains. The best to Cincinnati, Louisville, New Orleans, or Florida. For full information regarding single round trip rates, call on or address E. O. McCormick, General Northern Passenger Agent Monon Route, 73 Clark street, Chicago, Ill.

Building Outlook.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, Ill., November 10, 1886.

Our advices from numerous manufacturing centers up to within a day or two, show an activity in business which ought to be gratifying to every manufacturer and builder. This satisfaction is increased by the fact that although prices are pointing in an upward direction, they have not advanced far enough, and are not likely to advance far enough to intimidate capital or enterprise against entering upon new work during the winter and spring. In a general summary of this character only general conclusions can be drawn, and too much stress cannot be given to trade conditions in particular localities. We have advices from several cities, both east and west, wherein rather gloomy opinions are expressed by builders and architects as to the immediate prospects. From the opinions expressed, it would seem that local enterprise feels that it has gone about as far as it is safe or desirable to go at present. It is waiting to see what will take place elsewhere, what new developments will manifest themselves, and what new impulse will be given. In the larger cities we find a different condition of things; with scarcely an exception, building labor in every branch is busily employed. There is work enough in hand to keep builders busy until December 1. In Boston, New York and Philadelphia there is an abundance of work in hand, and if our advisers there are not mistaken, and we have no reason for believing they are, the winter's work will be far beyond that of any former season. The plumbers' strike in New York appears as though it had entered upon the collapsing stage. Building labor in that city is satisfied with hours and prices. Builders are contemplating large operations next spring. There is an urgent demand for houses, and real estate is in active demand, both in the city and suburban localities. In Philadelphia there is great activity, and quite a number of permits taken out within the past two or three weeks are for blocks of houses to be built during the next sixty days. The city councils of that city have made liberal appropriations for the construction of several school houses. Municipal improvements will absorb liberal appropriations. Coming westward, we find a commendable degree of building activity along all of the trunk lines, and we find that a great deal of activity is contemplated in railroad construction. The iron and steel industries of Pennsylvania are in a very healthy condition. Nails and furnaces are oversold for months. All of the industries are crowded. Throughout Ohio and Indiana the industrial conditions are very favorable, and labor is generally employed ten hours per day, at higher rates of wages, considering the purchasing power of money, than have ruled for some time. The demand for all kinds of building material is naturally slackening up at this time, but we are assured that the small work of the coming three or four months will help to keep up an easy movement in all kinds of building material. The brick yards have generally closed down. The iron mills and nail factories will run full time all winter. The demand for lumber has exceeded the anticipations of many, but prices, though somewhat better than early in the season, are disappointing. The lumber interests are, however, in sight of better conditions, and of more control over prices. The general improvement is strengthening the confidence of investors, manufacturers, merchants, jobbers, and in fact of all who are interested in production and exchange. There are no political issues of vital importance at stake, except those which politicians find it to their interest to magnify. The volume of money is large enough to supply all legitimate demands. The labor question is within sight of settlement. Our architects and builders have reason for congratulation that the present year has brought with it such favorable conditions and satisfactory results, and there is nothing in the present outlook to create any apprehensions as to the permanency of healthful trade and commercial influences at work.

Synopsis of Building News.

Abilene, Kan.—Architect Geo. W. Shaffer reports: Outlook is very favorable. Railroad connections are proposed which, if completed, will no doubt cause a boom next season. For Theo. Mosher, two-story frame, 36 by 49 feet; steam heat, mantels, etc.; cost \$4,500; plans under way. For Shaw & Son, three-story brick building, 44 by 75 feet, tin roof, galvanized iron cornice; cost \$4,000; plans under way. Addition to Methodist Episcopal Church, one-story brick, 20 by 30 feet; cost \$2,000; plans under way.

Aspen, Col.—Architect Fred A. Hale, of Denver, has prepared plans for Messrs. H. P. Cowenhoven & Co., for a two-story brick business building, 100 by 66 feet; white sandstone trimmings, tin and felt roof, ironwork, fireproofing, galvanized iron cornices, skylights, steam heat, electric light, stained glass, closets, hardwood finish, tiling, etc.; first story will be entirely of plate glass and iron; cost \$30,000; building to be completed January 1, 1887; E. F. Halleck Lumber Co., Denver, general contractors; John Rourke, mason; Dean & Ross, carpenters.

Aurora, Ind.—Architects McDonald Bros., of Louisville, Ky., have prepared plans for the city of Aurora for a two-story engine house and jail building, 30 by 41 feet; cutstone and brick, galvanized iron cornices; cost \$7,370; under way; W. W. McCoy, contractor.

Baltimore, Md.—Davidson & Sons, of Chicago, are the lowest bidders on the marble work for the Baltimore public building. Their bid is \$89,898. The Burlington Marble Company bid \$95,600.

Bozeman, Mont.—In our last "Intermediate News" number we reported that F. G. Draper & Co. were the architects of Mr. Storey's residence, which was a mistake. The above company furnish the hardware only. Mr. Byron Vreeland is the architect.

Birmingham, Ala.—Architects W. S. Smith & Co. report: There is still a boom in the building line which promises no cessation during the winter months. For C. H. Worrell, three-story flat building, 25 by 70 feet, brick, iron front; cost \$5,500; under way; Gabert & Ratliff, builders. For J. W. McConnell, three-story flat building, 25 by 94 feet, brick, iron front; cost \$6,000; under way; Gabert & Ratliff, builders. For E. I. Brownlee, two-story and mansard residence; cost \$4,000; under way. For St. Paul's M. E. Society, frame church building, 40 by 70 feet; cost \$12,000; under way; L. Scully & Co., builders. For H. A. Sharp, two-story frame dwelling; cost \$3,000; under way. For J. Bandman, two-story frame dwelling; cost \$3,000; plans ready for bids. For R. J. Terry, addition to two-story brick store, 25 by 55 feet; cost \$1,800; under way.

Bureau, Ill.—Architect H. Boehme, of Joliet, reports: For A. Burnett, cottage; to cost \$2,000; under way.

Cañero, Ill.—Architect L. D. Bayley reports: For E. A. Smith, two-story and basement frame dwelling, 24 by 46 feet, tin roof, hardwood finish, wood mantels, stained glass, closets and bath, hot air heat ("Henderson" furnace), electric bells etc.; cost \$2,000; will be commenced soon.

Architects Treat & Foltz, of Chicago, have prepared plans for an Episcopal Church, 40 by 100 feet, to be built of stone, slate roof, galvanized iron cornice, stained glass, hot air heat; cost \$15,000; work being done by the day; M. F. Gilbert, H. H. Candell and Rev. F. P. Davenport, building committee.

Cherryvale, Kan.—Architects W. R. Parsons & Son, of Emporia, report: For W. W. Brown, block of five stores; to cost \$12,000; under way; John S. Huntley, builder.

Cambridge, Ill.—Dr. R. F. Lowry is building a two-story frame dwelling and office, 24 by 44 feet; cost \$3,500; under way; Jno. Banholt, mason; P. M. Kessler, carpenter.

Cassopolis, Mich.—Dr. F. Goodwin has prepared plans for a three-story brick hotel building, 74 by 90 feet, to be commenced April 1, 1887; Dr. Goodwin will buy all the material and superintend the work himself. The following material will be wanted: closets, bath, stained glass, tin or iron roof, freight elevators, tiling, electric bells, speaking tubes, dumb waiters, iron columns, plate glass, stone for sills, shingles, lath, etc., also fifty heating stoves; cost of building, about \$13,000.

Chicago, Ill.—Architect J. J. Flanders reports: A two-story school house, 47 by 125 feet; brick, buff Bedford stone trimmings; to be erected corner of Thirty-fifth and Lincoln streets; Peterson & Delahy, masons.

Architect W. W. Boyington reports: For Judge Drummond, four-story and basement store building, 20 by 160 feet, on Lake street, between Franklin and Market streets; pressed brick with brownstone and terra-cotta trimmings, felt roof, ironwork, steam heat and power, freight elevators, hardwood finish, etc.; cost \$13,000; C. A. Moser, mason; David Coey, carpenter.

Architects Burnham & Root report: For W. C. Turner, on Lake Shore Drive, residence, Pennsylvania mica stone, tile roof, 60 by 80 feet; cost about \$70,000. For Charles Counsellman, at Kenwood, residence, Pennsylvania stone, tile roof, 60 by 75 feet; cost about \$60,000. For David K. Hill, on Michigan avenue, residence, Georgia marble, slate roof, 40 by 80 feet; cost about \$50,000. For J. H. Winterbotham, at Woodlawn Park, residence, pressed brick, slate roof, 40 by 70 feet; cost about \$20,000.

Architect George Beaumont reports: For Alex. Bell, three-story store and flat building, 58 by 70 feet, corner of Ogden avenue and Paulina streets; Indiana brick, Lemont stone, galvanized iron cornice, felt roof, skylights, ironwork, stained glass, closets, bath, marble mantels, electric bells, etc.; cost \$15,000; under way; Thos. Keating, mason; Dearborn Foundry Company, ironwork; Young & Farrell, stone.

Architects Miller & Thain report: For D. E. Sibley grain elevator, 45 by 100 feet, corner of Thirty-first street and Stewart avenue; it will be covered with corrugated iron; capacity, 175,000 bushels; Wm. Hyink, mason.

Architects Rae & Wheelock report: For W. O. Parker, five brick and frame dwellings, at Park Manor; contracts will include hardwood finish, tiling, wood mantels, electric bells, speaking tubes, closets, bath, stained glass and skylights; cost \$17,500; to be commenced at once. For M. O'Rourke, a three-story hotel, 55 by 183 feet, at South Chicago; passenger elevator, steam heat; cost \$10,000; to be commenced this fall. For J. A. Burhans, alterations, etc.; cost \$5,000; M. St. John, carpenter.

Architect A. J. York reports: For McNeil Bros., five-story warehouse, 178 by 99 feet, at 240 to 254 Jackson street; cost \$110,000; under way; L. J. Daegling, mason; R. W. Gronow, carpenter. For Mr. Baldwin, three-story store and flat building, 61 by 55 feet, on Van Buren street, near Winchester avenue; Anderson pressed brick, brownstone trimmings; cost \$14,000. Also preparing plans for a hotel building, to be built of pressed brick and brownstone, on the West Side; cost about \$40,000.

Architect C. M. Palmer reports: For H. J. Welling, four-story store and flat building, 68 by 109 feet, Chicago avenue and State street, Indiana pressed brick, brownstone trimmings, galvanized iron cornice, felt roof, iron columns, beams, etc., skylights, freight elevator, closets, bath, wood mantels, bells and speaking tubes; cost \$30,000; under way; Kendall Bros., carpenters; R. E. Morse, mason.

Architects Ostling & Bourgeois report: For Anderson & Peterson, three-story and basement double house, 44 by 48 feet, 114-116 Oak street, brick, stone and terra-cotta trimmings, galvanized iron cornices, felt roof, skylights, closets and bath, stained glass, marble mantels, electric bells, etc.; cost \$11,000; under way; Woodstrom & Erickson, masons; M. Reed, carpenter. For C. J. Blomstrom, four-story and cellar flats, 25 by 50 feet, 177 Oak street, brick, stone and terra-cotta trimmings, galvanized iron cornices, felt roof, skylights, closets and bath, stained glass, marble mantels, electric bells, etc.; cost \$8,500; under way; Lindgren & Nelson, masons; Lundgren & Bush, carpenters. For C. Peterson, three-story and cellar flats, 44 by 60 feet, on Racine, near Wrigglesworth avenue, brick, stone and terra-cotta trimmings, galvanized iron cornice, felt roof, closets and bath, stained glass, marble mantels, electric bells, etc.; cost \$14,000; contracts not let.

Architect Julius Speyer reports: For Donohue & Henneberry, six-story business block, 200 by 72 feet, on Dearborn street and Third avenue, St. Louis pressed brick, granite and brownstone trimmings; cost \$120,000.

Architects Schaub & Berlin report: For H. N. Loomis, two-story and basement and attic residence, 25 by 70 feet, Michigan avenue and Thirty-fourth street, rock-faced brownstone, with blue Bedford stone trimmings, copper cornices, skylights, hardwood finish and tiling, mantels, closets, bath, steam or furnace heat, stained glass, electric bells, dumb waiters, etc.; cost \$10,000. For Albert Leon, three-story and basement and attic store and flats, 25 by 82 feet, 824 Milwaukee avenue, St. Louis pressed brick, brownstone trimmings, galvanized iron cornices, iron channels, beams, etc., closets, bath, skylights, stained glass, mantels, electric bells, speaking tubes, etc.; cost \$10,000; under way; Charles Wagner, mason; F. Koepke, carpenter. For Adam Ochs, two-story residence, 30 by 60 feet, Anderson pressed brick, brownstone trimmings; cost \$10,000.

Architects Rae & Wheelock report: For J. A. Burhaus, alterations, etc.; cost \$5,000; St. John, carpenter. For Charles Morrison, residence on Ellis avenue, near Fortieth street, rock-faced blue Bedford stone front, galvanized iron cornices, iron channels, beams, etc., fireproof, skylights, closets, bath, stained glass, hardwood finish and tiling, mantels, steam heat, electric bells, speaking tubes, dumb waiters, conservatory, etc.; cost \$40,000; under way; Wm. Zulesdorf, mason; Philip & Jackson, carpenters. For A. E. Tyler, alterations, etc., at Geneva Lake; cost \$5,000.

Architect H. F. Starbuck reports: For J. S. Belden, two-story residence, 37 by 70 feet, Woodlawn avenue and Forty-seventh street, Marquette stone and brick, red slate trimmings, galvanized iron cornices, hardwood finish and tiling, mantels, dumb waiters, hot water heat, closets, bath, stained glass, electric bells, speaking tubes, etc.; cost \$15,000; roof on; Adams & Williams, masons, F. N. Chelins, carpenter.

Architect John T. Long reports: For Town of Lake, two-story school house, 65 by 116 feet, on Seventieth street, brick, limestone trimmings; cost \$25,000; T. A. Westberg, contractor. For same, two-story school house, 45 by 60 feet, on Eighty-fifth street, common brick, limestone trimmings; cost \$10,000; E. W. Sprout, mason, H. T. Quintell, carpenter. For E. S. Rice, one-story brick powder magazine, 65 by 150 feet, located four miles southwest of Blue Island, on C. R. I. & P. R. R., to be built of brick and roofed with iron; cost \$10,000; Alfred Wenberg, mason, John H. Gray, carpenter. For F. S. Moore, two-story frame dwelling, 40 by 60 feet, Sixty-seventh and Harvard streets, Normal Park; cost \$6,000.

Architect Otto H. Matz reports: For Chicago Drug & Chemical Co., remodeling and fitting up two stone-front buildings, 52 and 54 Franklin street; cost \$10,000. For A. Buset, stores and flats, 50 feet on N. Clark street, brick, stone trimmings; cost \$12,000.

Architects Furst & Rudolph have prepared plans for Naper Bros. for two two-story dwellings, 46 by 50 feet, at 55 and 57 Delaware place, St. Louis pressed brick, brownstone trimmings; cost \$12,000. For C. Froess, three-story dwelling, 23 by 34 feet, at 234 Webster avenue, St. Louis pressed brick, brownstone trimmings; cost \$5,000; G. Eberlein, mason; J. G. Lobstein, carpenter.

Architect C. M. Palmer has prepared plans for J. F. Barney for a three-story flat building, 38 by 40 feet, at 171 and 173 Twenty-first street; cost \$3,000; Barney & Rodatz, masons; H. H. Roberts, carpenter.

Architect E. E. Snyder reports: For Henry D. Nicholls, three-story stores and flats, 48 by 70 feet, at 456 and 458 Ogden avenue, Ohio Amherst stone, Lake Superior brownstone trimmings; cost \$14,000; O'Donnell & Ormsby, masons; Brown & Linquist, carpenters.

Architect John Otter reports: For Geo. Wilson, two-story livery stable with flats above, 50 by 120 feet, on Center street, Indiana brick, Lemont stone trimmings; taking figures. For A. Burton, three-story store and flat, 28 by 83 feet, on Chicago avenue, near Larrabee street, Anderson pressed brick, Lemont stone; cost \$9,000; M. J. Benson, mason; C. E. Carson, carpenter. For J. L. Fosse, three-story flats, 22 by 53 feet, at 135 Hudson street, Anderson pressed brick, Lemont stone; cost \$7,000; under way; A. Almert, mason; J. Larson, carpenter.

Architect H. R. Wilson reports: For F. Kachler, stores and flats, at 684 W. Division street, two stories, 32 by 80 feet, Anderson pressed brick, portage stone trimming; cost \$6,000; C. W. Boyington, mason. For Geo. W. Parke, dwelling, on Monroe, near Leavitt street, two stories, 30 by 60 feet, St. Louis pressed brick, trimmed with brownstone; cost \$10,000.

Architects Jenney & Otis report: A dwelling on lake shore drive, two stories, 50 by 70 feet, granite; cost \$35,000; Mortimer & Tapper, masons.

Architect Fred Ahleschlager reports: For M. Englehardt, at 3150 S. Park avenue, two three-story dwellings, 42 by 75 feet, stone fronts; cost \$21,000; Daegling & Tarmuler, masons.

Architect Fred Kelterich reports: For Thos. Mathews, dwelling, two stories and basement on Albany avenue and Madison street, Trenton pressed brick, on Albany avenue front, Indiana pressed, on Madison street front, ornamental brick and cutstone trimming, galvanized iron furnace, mantels, grates, and stained glass, will be used; cost about \$4,000. For A. Campbell, brick cottage, one story and attic, pressed brick, cutstone, and ornamental brick trimmings, plate and stained glass, mantel, grate, etc.; cost \$1,800. For Geo. Brangart, residence on Belmont avenue, Lakeview, frame, two stories and basement, gable roof; cost \$1,400. For John Welch, store and flat building, pressed brick, cutstone trimmings, galvanized ironwork, flat roof; cost \$3,000. For Mr. Lovejoy, flats, Indiana pressed brick, tuck-pointed cutstone trimmings, cement floor in basement, plate and stained glass, mantels, grates, etc.; cost \$13,000.

Cincinnati, O.—Reported by Mr. L. Mendenhall. As the season advances, or more properly, draws to a close, the gleaming of architectural news becomes more or less an arduous task. In my rounds of the architects' offices, I find rather an uncertain feeling existing as to the outlook for spring trade, strikes and labor combinations being the bugbears and disturbing forces. However, let us not cross the bridge until we come to it, but put on a bold front and meet them, should they come, with a firm backbone, and a generous spirit. Our citizens are very excited over rapid transit, and if all the plans are carried out, a great boom in suburban building, depending, of course, upon the above condition, will surely be the result. The beautiful bank building is rapidly nearing completion, and has proved an "open sesame" to its architect, who has had his time fully occupied in the preparation of plans ever since he opened his office. The

Etna Insurance Company's building is progressing favorably, and will prove quite an architectural addition to our fast improving city. The Presbyterians of Pine Hill have accepted A. C. Nash's plans for a church, and ground has been broken. Ground has been broken for the Hamilton County Morgue, a much needed improvement. Mr. Samuel Hannaford is busy with plans, the latest being the Children's Hospital, which will be complete in every detail. Mr. E. Anderson has well considered the knotty problems of light and space, and the economical expenditure of money in an apartment house for Miss Sarah Gillespie. The improvements and additions to Longview Asylum are progressing favorably under the supervision of Architect Gustave Drach.

Architect Chas. Crapsey has prepared plans for an exceedingly beautiful office building, eight stories, of brownstone, size 36 by 100; cost \$50,000.

Architects Buddemeyer, Plympton & Trowbridge report: Drawings have been prepared for rebuilding Mr. J. B. Sellow's residence, Avondale, burned down; cost \$4,500. For H. T. Duke, Mt. Auburn, ten-room Queen Anne, cement house; cost \$4,500. For Jas. V. Sweetser, Marion, Ind., stone, cement and half timber residence, twelve rooms, slate or tile roof; cost \$10,000. Prospects for spring work exceedingly good, with the anticipation of a rushing building season generally.

Architect Samuel Hannaford, Esq. reports: A seven-story stone front store, 44 by 72 feet, with tin roof, for Gen. Louis Seasongood. For Mr. J. Wilhelmy, a brick stable, two stories high, 40 by 100 feet, capacity forty horses, tin roof. Three dwellings built of brick and stone, containing ten rooms each, with slate roof, for Robert Mayer.

Cimarron, Kan.—Architects W. R. Parsons & Son, of Emporia, report: For School Board, school house, to cost \$8,000; under way; John Anderson, builder.

Dayton, Ohio.—Architect Chas. I. Williams reports: For Chas. T. Freeman, alterations and additions to residence; cost \$2,500; brick stable, \$1,500; under way; O. L. Bouck, carpenter. For S. J. Patterson, two and one-half-story brick store and dwelling, 33 by 100 feet; cost \$4,500; under way; Phil Rudy, carpenter. For J. P. Wolf, two and one-half-story pressed brick residence, 46 by 80 feet; cost \$20,000; under way; P. E. Gilbert, carpenter. For same, two-story brick stable, 35 by 35 feet; cost \$2,000; under way; H. B. Sortman, carpenter. For I. L. Baker, two and one-half-story brick residence, 33 by 85 feet; cost \$15,000; under way; John Rouzer & Co., carpenters. For Christ Eidleman, two and one-half-story brick residence and stable; cost \$3,000; under way; O. L. Bouck, carpenter. For G. M. Fair, two-story brick residence, 22 by 66 feet; cost \$3,000; under way; Z. E. Hersh, carpenter. For Board of Education, two-story brick school house, 40 by 80 feet; cost \$9,000; under way; Z. E. Hersh, carpenter. For Jas. Ritty, three and one-half-story stone business block with flats above, 50 by 100 feet; cost \$13,000; projected; contracts not let. For the United Brethren Publishing House, four-story pressed brick business block, 60 by 140 feet; cost \$16,000; under way; Jacob Smith, carpenter. For August Whitgar, bar-room fixtures, the "Mikado," Jap. design; cost \$2,500; under way; John Ronzer & Co., carpenters. For Herman Frank, bar-room fixtures; cost \$2,000; under way; M. Ohmer's Sons, carpenters. For A. Zitler, storeroom; cost \$3,600; under way; Ronzer & Co., carpenters. For Chas. Horne, two-story brick dwelling, 30 by 56 feet; cost \$3,000; projected. For Scott McDonald, two-story frame dwelling, 28 by 48 feet; cost \$2,400; projected. For Wm. Arnold, two and one-half-story pressed brick dwelling, 45 by 78 feet; cost \$1,200; projected. For John Dietz, three-story pressed brick business block, 81 by 110 feet; cost \$11,000; under way; Henry Prinz, carpenter. For H. Hollencamp, two-story double brick dwelling, 34 by 60 feet; cost \$4,000; Albert Berry, carpenter. For Jacob Wolf, two and one-half-story pressed brick dwelling; cost \$9,000; under way; O. L. Bouck, carpenter. For Y. M. C. A., D. A. Sinclair, secretary, four and

(Continued on page xiv.)

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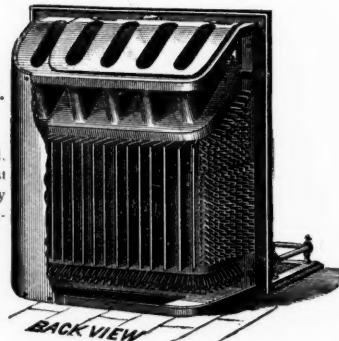
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(Continued from page 58.)

one-half-story building, 66 by 200 feet, rock-face Mansfield variegated sandstone, trimmed with brownstone, swimming bath, 25 by 50 feet, gymnasium, 53 by 60 feet, association hall, seating 800 persons; cost \$70,000; under way; B. N. Beaver, carpenter. For Arnold & Son, two-story brick dwelling, 28 by 52 feet; cost \$3,200; under way; P. E. Gilbert, carpenter. For Adam Schautz, three-story brick stores and flats, 38 by 120 feet; cost \$6,600; under way; Kramer & Co., Carpenters. For Joseph Needles, two-story brick dwelling; cost \$3,375; under way; P. E. Gilbert, carpenter. For W. H. Simms, three-story brick residence, 54 by 68 feet, greenstone, with brownstone trimmings; cost \$30,000; under way; M. Ohmer's Sons, carpenters. For R. I. Cummin, two and one-half-story residence, 48 by 68 feet, stone, first story, timber and cement above; cost \$4,500; nearly completed; Pierce & Coleman, and Ronzer & Co., contractors. For H. V. Lytle, two and one-half-story frame residence, 42 by 64 feet, redwood, shingles, etc.; cost \$8,000; nearly completed; O. L. Buck, carpenter. For Jno. Pfau, two-story brick store, 30 by 110 feet; cost \$4,000; nearly completed; O. L. Bouck, carpenter. For Church of the Sacred Heart, stone building, 75 by 115 feet; cost \$50,000; projected.

Davenport, Iowa.—Architect J. W. Ross reports: Preparing plans for J. S. Willie for a frame residence with all modern improvements; cost about \$10,000.

Donnellson, Ill.—Architect Joseph Otter has prepared plans and has now under way a one-story frame church, 32 by 50 feet, for the M. E. Society; cost \$1,500; John Hampton, mason; Joseph Otter, carpenter; seating is not yet contracted for.

Dubuque, Iowa.—C. W. Robison, secretary, reports that the club house for the Commercial Club will not be started until next May.

Architect F. D. Hyde reports: For Bishop Hennessey, block of three two-story and attic brick residences, 65 by 50 feet; cost \$8,000; under way. For Sisters of Mercy, asylum for the insane, two wards, each one story and basement, 30 by 90 feet, two-story and attic and basement administration building, 40 by 40 feet; making plans; cost not estimated.

Entonaton, Ga.—Architects Bruce & Morgan, of Atlanta, have prepared plans for Robert Young, president Hotel Co., for a two-story hotel building, 117 by 84 feet, brick basement and two stories frame; contracts include stained glass, tin roof, wood mantels, tiling, electric bells, speaking tubes, etc.; cost \$9,500; under way; C. D. Leonard, general contractor; E. F. Elliott, mason; B. S. Dallas, carpenter; to be completed by March 1, 1887.

Fargo, Dak.—Architect Geo. Hancock reports: There is a decided improvement in the outlook for building in the near future. A great many small jobs are being done all over north Dakota. Have under way at present a church at Lisbon, also one at Pembina, reported elsewhere in this issue.

Franklin, Ohio.—Architect Chas. I. Williams, of Dayton, reports: For First Presbyterian Church, frame parsonage; cost \$2,400; under way. For Jas. Guernsey, three-story pressed brick business block and Knights of Pythias hall, 50 by 90 feet; cost \$12,000; under way; J. C. Davis & Bro., of Dayton, carpenters.

Fredonia, Kan.—Architects W. R. Parsons & Son, of Emporia, report: For M. Abernethy, residence, to cost \$4,000; under way; John S. Huntley, builder.

Galveston, Tex.—Architect N. J. Clayton reports: For Texas Star Flour Mills, M. Reymerschoffer, president; N. J. Clayton, consulting architect; flour mills to cost \$100,000; under way. For Geo. Seeligson, two-story frame residence, slate roof; cost \$20,000; projected. For R. V. Davidson, two-story frame residence, slate roof; cost \$7,000; under way. For Mr. Selkirk, two-story frame residence, slate roof; cost \$7,000; projected. For Mr. C. Fox, two-story frame residence, slate roof; cost \$7,000; projected. For Mr. Jos. Franklin, addition to residence; cost \$830. Addition to residence of J. W. Byrnes; cost \$830; projected.

Great Bend, Kan.—Architects W. R. Parsons & Son, of Emporia, report: For Congregational Society, college building; to cost \$25,000; under way; John Anderson, builder. For Presbyterian Society, church building; to cost \$15,000; Morrison Bros., builders. For D. N. Heizer, store building; cost \$6,000; under way; Morrison Bros., builders. For D. N. Heizer, plans prepared for a residence, to cost \$3,000.

Greenville, Pa.—Architects Kanengeiser & Kling, of Youngstown, Ohio, report: For Shenango Valley Cemetery, receiving vault; to cost \$2,000. For Dr. M. L. McElhane, brick residence; cost \$5,000. For Samuel Cochran, frame residence; cost \$7,000.

Hamilton, Ohio.—Architects G. & A. Brink, of Cincinnati, have prepared plans for J. C. Tarrant for a four-story brick building, 24 by 76 feet, stone trimmings, galvanized iron cornices, tin and iron roof, iron work, passenger and freight elevators, steam heat and power, closets, electric bells, etc., electric light; building under way; Collins & Hill, masons; V. Barker, carpenter.

Hog Island, Va.—Architect Chas. I. Williams, of Dayton, Ohio, reports: For Ed. Barney, granite and shingle summer residence; cost \$25,000, projected.

Holtan, Kan.—Architects W. R. Parsons & Son, of Topeka report: For the Board of Education, school house, to cost \$10,000; under way; J. D. Bricher, builder.

Howard, Kan.—Architects W. R. Parsons & Son, of Emporia, report: For School Board, school house, to cost \$7,000; under way; Sullivan & Steinmetz, builders. For Wm. Bruce, residence, to cost \$3,000; preparing plans.

Huron, Dak.—Architect H. J. Bingham, formerly of Mitchell, has located here, and reports the following: Building is about completed for this season, with good prospects for next year. Have at present six frame cottages under way, ranging in cost from \$1,000 to \$2,000, and aggregating \$9,365.

Joliet, Ill.—Architect H. Boehme reports: For John Lennon, remodeling residence; cost \$2,500; under way; P. R. Bannon, contractor. For a benevolent society hall building; cost \$3,000; contract not let. For E. Curtis, cottage; cost \$2,000; under way; D. E. Winters, builder. For M. Juicy, three cottages, to cost \$3,000; under way; D. E. Winters, builder. H. R. Russell, residence, to cost \$3,500; under way; H. R. Burlingame, builder.

Jonesboro, Ark.—G. W. Culberhouse & Co. are erecting a two-story business building, 30 by 90 feet; brick, iron front, tin roof, galvanized iron cornice, hardwood finish, steam or hot air heat; cost \$6,000; under way; H. G. Seymour & Bro., general contractors; J. White, mason.

Kansas City, Mo.—Architect F. B. Hamilton, reports: For G. M. Foley, three-story brick building, 22 by 96 feet; cost \$8,000; under way; Sutherland & Oliver, builders. For R. M. Snyder, three-story and basement brick building, 36 by 56 feet; cost \$10,000; taking figures. For Dr. N. N. Horton, two-story addition to residence; cost \$2,500; plans finished.

Kinsman, Ohio.—Architects Kanengeiser & Kling, of Youngstown, Ohio, report: For J. McGranahan, two-story stone and frame residence, 72 by 80 feet.

Lincoln, Neb.—Architect F. B. Hamilton, of Kansas City, Mo., reports: For Eli Plummer, two story residence, slate roof; cost \$7,500; under way; Terhune & Wilson, of Kansas City, builders.

Lynchburg, Va.—Architect E. S. McCrossin has prepared plans for James M. Booker for a three-story fireproof tobacco warehouse, 140 by 110 feet, to be built of stone and brick, tin roof, ironwork, skylights, closets, elevators, etc.; capacity 200,000 pounds tobacco daily; Oglesby & Cunningham, proprietors; cost \$20,000; under way; William H. Ford, mason; John P. Pettyjohn, carpenter.

Larned, Kan.—Architects W. R. Parsons & Son, of Emporia, report: An opera house building, to cost \$20,000; under way; Chappell & McCallister, builders.

Leavenworth, Kan.—Architects Wells & Phelps report: Outlook for next spring is very good, as is also present business. Have the following under way at present: For Mrs. H. C. Prang, frame residence, 32 by 48 feet; cost \$2,700; H. W. Coultrin, builder. For W. H. Farrell, four-story stone and frame store building, 30 by 92 feet; cost \$4,700; E. H. Farrell, builder. For Brandon & Kuniger, three-story brick brewery building, 29 by 75 feet; cost \$2,500; Wm. Schrader, builder. For J. H. Ousley, three-story brick store building, 48 by 80 feet; cost \$6,500; day work. For Thos. Green, three-story frame residence, 40 by 48 feet; cost \$3,800; H. W. Coultrin, builder. For I. Rothenberg, two-story brick residence, 25 by 75 feet; cost \$4,800; M. E. Everett, builder. For G. M. Lee, three-story frame residence, 38 by 58 feet; cost \$5,700; H. O. Neal, builder. The government building, under the supervision of Mr. Wells, is progressing rapidly.

Lisbon, D. T.—Architect Geo. Hancock, of Fargo, reports: For the Episcopalian Society, church building, 25 by 65 feet, to be built of giant boulders, roughly dressed, open timbered roof, stained glass windows; cost \$3,500; just commenced; G. A. Stout, builder.

Little Rock, Ark.—Architect B. J. Bartlett has prepared plans for Louis Reinman for a brick carriage repository, 75 by 140 feet; cost \$6,000. For Dodge & Johnson, brick business block, 60 by 100 feet; cost \$11,000. For Christian Church congregation, brick building; cost \$6,000.

Lockport, Ill.—Architect H. Boehme, of Joliet, reports: For C. Mosher, brick store building, to cost \$4,000; contract not let.

Minneapolis, Minn.—Architect J. M. Wood, of Chicago, Ill., has prepared plans for, and work has commenced on Messrs. Gates Bros.' four story theater building, 70 by 165 feet, to be built of Milwaukee pressed brick, trimmed with Vermont Island stone and terra-cotta, on Hennepin avenue, between Seventh and Eighth streets, contracts will include fireproofing, hardwood finish and tiling, iron roof, iron channels and beams, skylights, stained glass, closets and baths, steam heat and power electric bells, speaking tubes, dumb waiters, electric lights, etc. The building has been leased to Messrs. Sackett & Wiggins, and will be opened about January 1, 1887, under the management of Mr. Frank Percy Weadon. It is the intention of the proprietors to surpass any theater in the West in the way of finish and decoration; cost of building \$150,000.

Mount City, Ill.—Architects E. Jungenfeld & Co., of St. Louis, Mo., have prepared plans for G. F. Meyer for a three-story brick factory building, 50 by 100 feet, building under way; D. D. Harris, general contractor, Henry Stout, mason, Harris & Son, carpenters.

Mt. Vernon, O.—Mayor C. Culbertson reports that the question of building a city prison, etc., has been agitated, but nothing definite yet done regarding the matter.

Milwaukee, Wis.—Architect Wm. Davelaar reports: For E. Darston, two-story double brick dwelling; cost \$8,000. For A. De Long, frame dwelling; cost \$2,500. For James Siddle, double brick dwelling; cost \$7,000. For J. Muller, two frame dwellings; cost \$8,000. For Gen. West, frame dwelling; cost \$6,000. For F. A. Lidston, frame dwelling; cost \$2,000. For H. B. Dewey, frame dwelling; cost \$2,500. For A. L. Kain, three frame houses; cost \$4,000; two-story brick bank building in Oconto; cost \$6,000. For J. McIntyre, frame dwelling; cost \$1,500. For Wm. Van Bimen, frame dwelling and store; cost \$2,500.

Mendon, Ohio.—Architect Charles I. Williams, of Dayton, reports: For Board of Education, two-story brick school house, 28 by 52 feet; cost \$8,000; under way.

New Corporations.—The Ohio Sanitary Company, of Cincinnati; capital stock, \$25,000. Joseph Semple, John A. Dixon, 4 Taft street; Harry H. Golden, John Jones and Wm. T. Cooper, incorporators. A certificate to increase the capital stock of the Pioneer Fireproof Construction Company of Chicago from \$100,000 to \$250,000 was today filed with the Secretary of State. Standard Light and Heat Company, at Chicago; capital stock, \$500,000; incorporators, Harrison J. Baker, Thomas Wanless, E. Beckley Hamlin and John Barton Payne.

Niles, Mich.—Architects Searle & Dougan report: For the city, two-story hose house, 18 by 24 feet, brick veneer, wood cornice, iron roof; cost \$700; under way; Searle & Dougan, contractors.

Norwalk, Ohio.—The county commissioners have submitted the question of building of a jail to a vote of the people at the November election.

Omaha, Neb.—Architects Miller & Thain, of Chicago, Ill., report: For A. R. Souer, two-story frame dwelling, 42 by 60 feet; stone foundation, pointed slate roof, skylights, stained glass, closets and bath, hot air heat, hardwood finish and tiling, electric bells, speaking tubes, wood mantels, etc.; cost \$15,000.

Ogden, Utah.—Architects Van Brunt & Howe, of Boston, Mass., and Kansas City, Mo., have prepared plans for the Union Pacific Railway Company for a three-story stone depot building, 390 by 70 feet; slate roof, galvanized iron cornices, iron channels, beams, etc.; hardwood finish and tiling, fireproofed, skylights, stained glass, closets and bath, passenger and freight elevators, steam heat and power, electric lights, electric bells, speaking tubes, dumb waiters; slate or marble mantels; cost \$135,000.

Pembina, D. T.—Architect Geo. Hancock, of Fargo, reports: For Episcopalian Society, brick veneered church building, 23 by 60 feet; open timbered roof, stained glass windows, etc.; cost \$3,000; under way; R. R. Lea, of Bartlett, builder.

Pittsburg, Kan.—Architects W. R. Parsons & Son, of Emporia, report: For the city hall and jail building; cost \$6,000; under way; Fred Messerman, builder.

Plymouth, Ind.—Architects Purcell & Fry have prepared plans for Rev. E. P. Thompson for a Presbyterian church building, 61 by 70 feet, brick, stone trimmings, slate roof, galvanized cornices, iron channels, beams, etc., hot air heat; cost \$7,000; under way; Daniel Kehler, carpenter; Bristol, mason.

Poplar Bluff, Mo.—Architects Frank & Lisney have prepared plans for I. M. Davidson for a two-story brick building, 24 by 40 feet; tin and felt roof, galvanized iron trimmings; cost \$2,000; under way; Frank & Lisney, masons; J. B. George, carpenter.

Salina, Kan.—Architect F. B. Hamilton, of Kansas City, Mo., reports: For Dr. M. H. Grier, three-story store and office building, 50 by 75 feet; brick, cutstone trimmings; cost \$8,000; W. O. McKinney, contractor.

Sharon, Pa.—Architects Kanengeiser & Kling, of Youngstown, Ohio, report: For Shenhago Machine Company, frame foundry building; cost \$5,600.

South Evanston, Ill.—Architect John T. Long, of Chicago, reports: For M. E. Society, one-story church building, 66 by 183 feet, red pressed brick, limestone trimmings; cost \$12,000; under way; Thomas Parnell, contractor.

Sioux City, Iowa.—Architect G. G. Baldwin reports: Everyone is busy this fall, but prospects for winter is poor. For Independent School District, west side school house, 78 by 94 feet; cost \$15,000; projected. For Fred Evans, dwelling, 32 by 32 feet; cost \$3,000; projected; Hawson & Lamb, builders.

Topeka, Kan.—Architect Seymour Davis reports: For N. P. Garretson, two and one-half-story cutstone, pressed brick and frame dwelling, 35 by 50 feet; cost \$5,000. For Professor J. E. Williamson one and one-half-story frame dwelling, 22 by 30 feet; cost \$2,000. For T. E. Pounds, brick, terra-cotta and frame dwelling, 30 by 41 feet; cost \$2,500; plans under way.

Architect John T. Long, of Chicago, Ill., reports: For the C. K. & N. R. R., two-story depot, 64 by 200 feet, limestone and pressed brick; cost \$30,000; also preparing plans for 75 or 80 depot buildings along the line of this road.

Architects W. R. Parsons & Son report: Building season has been good, but prospects for next year are very uncertain, as crops are poor. For Wilson County, court house, 82 by 102 feet; cost \$40,000; under way; J. H. Seeley, builder. For Elk County, court house, 90 by 100 feet; cost \$35,000; under way; J. S. Huntley, builder. For Hodgeman County, court house, 50 by 60 feet; cost \$15,000; under way; Geo. H. Evans, builder. For Elk County, jail and sheriff's residence; cost \$6,000; under way; J. S. Huntley, builder. For Hodgeman County, jail and sheriff's residence; cost \$4,000; under way; Geo. H. Evans, builder.

Urbana, Ohio.—Architect Chas. I. Williams, of Dayton, reports: For Jno. E. Bucher, two-story frame dwelling, 28 by 46 feet; cost \$2,200; under way.

West Manchester, Ohio.—Architect Chas. I. Williams, of Dayton, Ohio, reports: For F. M. Davison, two and one-half-story brick residence, 33 by 68 feet; cost \$9,000; under way; O. L. Bouck, carpenter.

Warren, Ohio.—Kanengeiser & Kling, of Youngstown, report: For William Wallace, brick residence; cost \$16,000. For Dr. O. A. Palmer, frame residence; cost \$6,000.

Wheeler, Pa.—Architects Kanengeiser & Kling, of Youngstown, Ohio, report: For James Madge, frame residence; cost \$2,000.

Winona, Minn.—Messrs. Gates Bros., landlords and builders, of Minneapolis, have been awarded the contract to erect a hotel and opera house in this city, to cost, with sites, \$200,000, for a bonus of \$40,000 cash. Full particulars are not yet made public.

Youngstown, Ohio.—Architects Kanengeiser & Kling, report: For Hon. George F. Arrel, two-story frame residence, 40 by 61 feet, slate roof, wood mantels, hardwood finish and tiling, closets, bath, stained glass, electric bells, speaking tubes, plate glass, etc.; cost \$12,000; under way; Thomas Connell, mason; Wirt & Wirie, carpenters. For St. Columbia church, brick parochial residence; cost \$12,000. For William Anderson, frame residence; cost \$5,000. Frame German Reformed church; cost \$5,000. Frame school house; cost \$3,200. Receiving vault for St. Columbia church cost \$1,600. For Rev. E. Mears, two-story brick building, 45 by 64 feet, slate roof; cost \$12,000; under way; McElhane & McMaster, builders. For Wm. S. Anderson, two-story frame building, 40 by 52 feet, slate roof; cost \$5,000; under way; Young & Knox, builders. For Evangelical Society, frame church, 35 by 70 feet, slate roof; cost \$6,000; under way; Young & Knox, builders. For Silas Shook, two-story frame, 40 by 56 feet; cost \$6,000; under way; day work.

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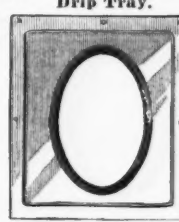


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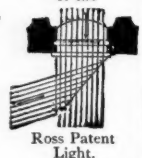
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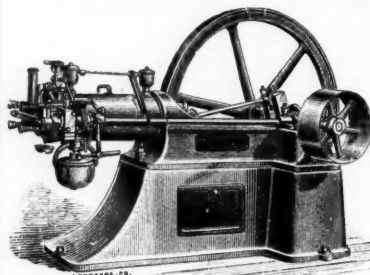
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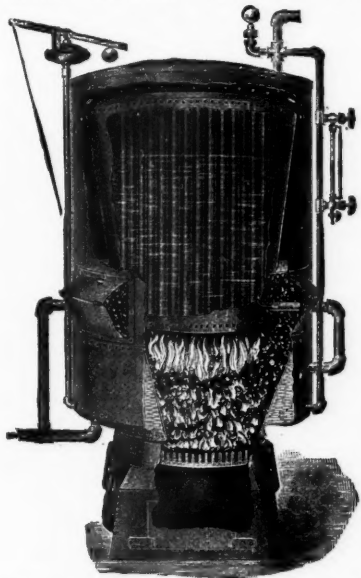
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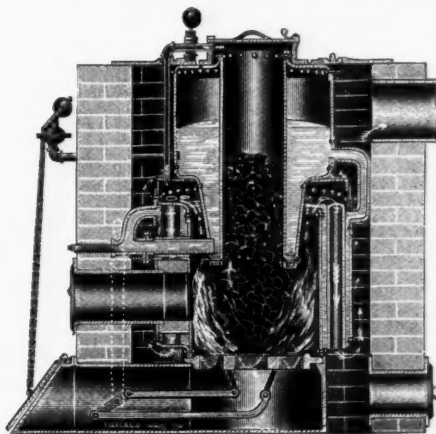
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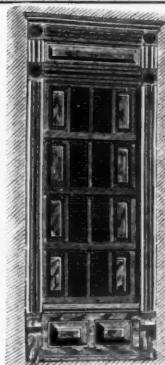
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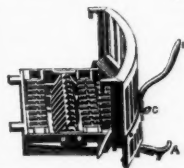
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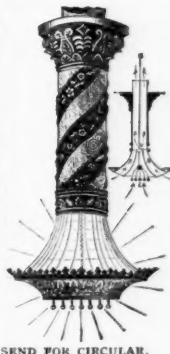
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Whiting (dry) 1@ 2
Paris white (English) 2@ 3
Litharge (American) 6@ 10
Sienna, burnt 9@ 16
Umber, burnt 7@ 16
Oil, linseed (raw), per gal. 42
Oil, linseed (boiled) " " 45
Turpentine " " 45
Varnish, coach, " " 1 25@ 2 00
Varnish, shellac, " " 3 25@ 4 00

HARDWARE.

Per Keg

Nails:
Spikes, wrought \$3 4
Tennepenny, common 2 10
Shingle, 4 s. 3 95
Lath, 3 s fine 5 10
Steel nails, 10 s to 60 s. 2 35
For steel nails add 20 c. per keg.
For finishing-nails add \$1.50 per keg.
For casing-nails add 75 c. per keg.SPECIAL
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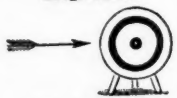
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"The best tin roofs at the present time, we are persuaded, are obtained by architects specifying 'brand stamped plates' (by which we mean plates every sheet of which is stamped with the brand), and then seeing that the yare employed on the roof. By the stamping of the individual sheets there is no possibility of a different quality of plate being used than the one originally intended. The question of tin plates is a very broad one and one that architects seldom master in all its details. Either they must become experts in tin plates and be able to detect the fine shades of quality by simple inspection, or they must limit their specifications to plates, the standing and quality of which are fully assured by the guarantees of reputable and responsible houses."—From the "Metal Worker," New York, January 6, 1886.

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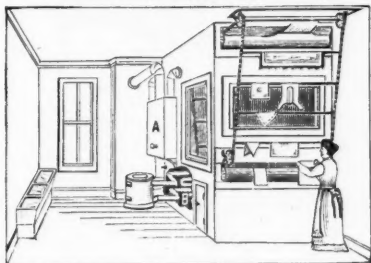
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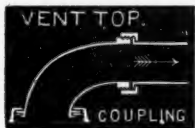
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ATLANTA, GA., October 9, 1886.
MESSRS. MERCHANT & CO., PHILADELPHIA, PA.,
Gentlemen:—Your letter, in regard to guaranteed tin plates, to hand. In reply, will say we heartily agree with you that the system of stamping each sheet is productive of fairer competition, and a thing no reliable firm need fear.
It should be a pleasure to any honest man to be able to prove to his customers that everything he does is according to plans and specifications. *Stamped Sheets* enables him to do this in the roofing business. You have done a good work. Keep on.
Very respectfully,
WARLICK & WINGATE.

SHANKS & BARRETT,
PRACTICAL TINNERS,
RICHMOND, VA., October 12, 1886.
MESSRS. MERCHANT & CO., PHILADELPHIA, PA.,
Gentlemen:—In reply to your letter in reference to stamping roofing-plates would say that we recognize it as the only way by which we can secure honest competition, and, therefore, we are certainly in favor of stamping all sheets.
We would say of your "Camaret" brand that we have been unable to find its equal in the roofing line. Hoping that you will succeed in your good work for honesty, we remain,
Yours very truly,
SHANKS & BARRETT.

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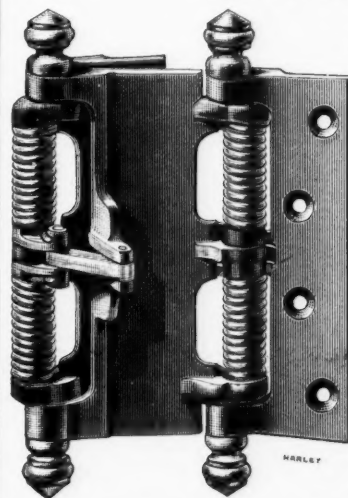
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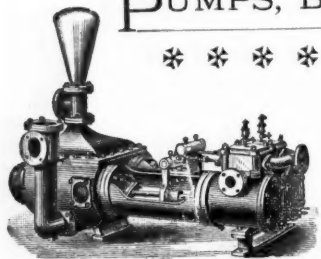
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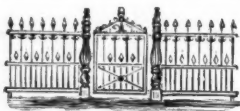
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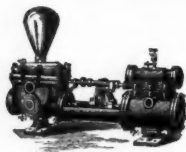
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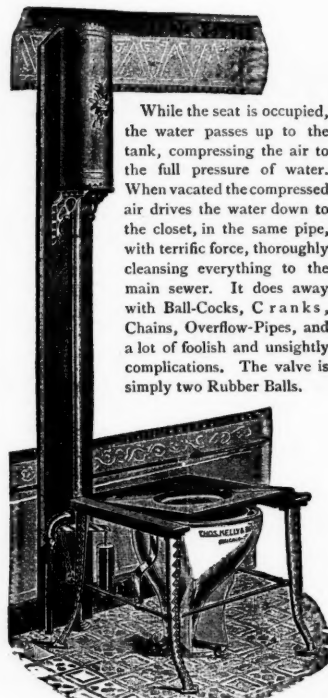


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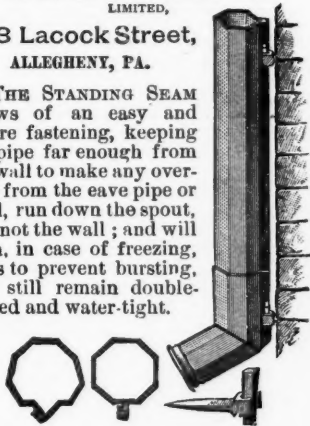
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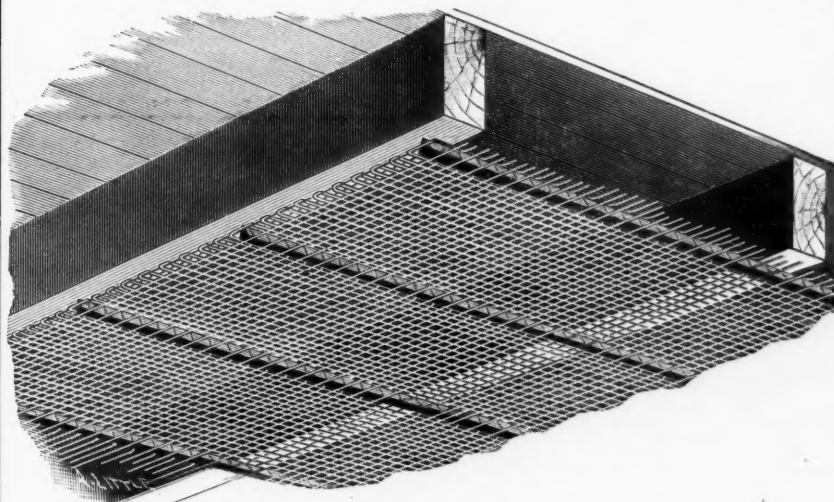
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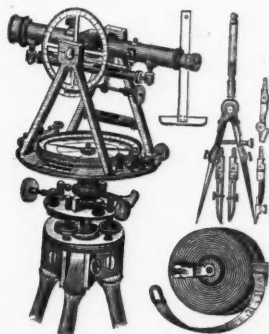
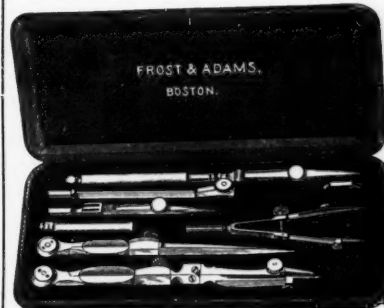
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