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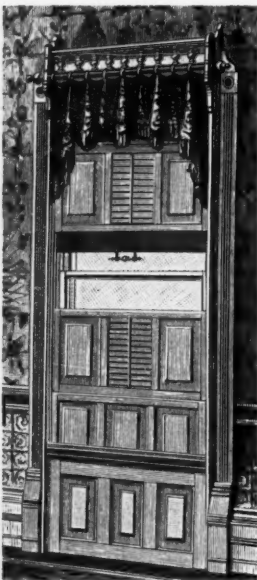
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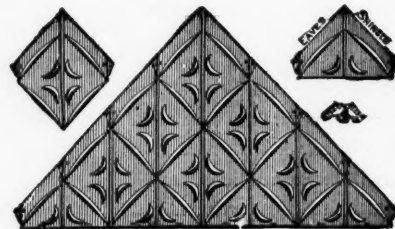
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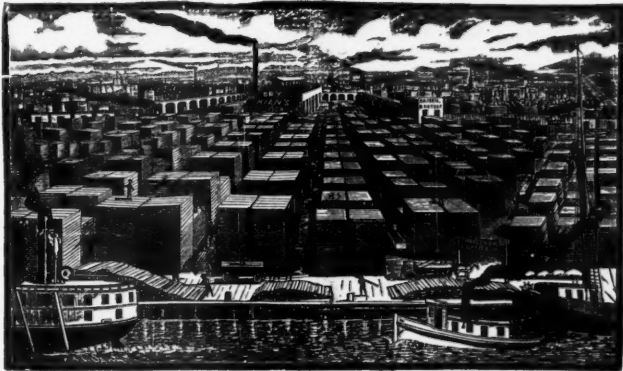
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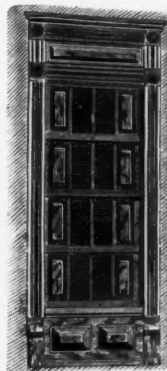
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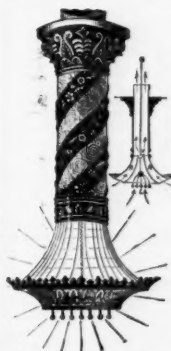
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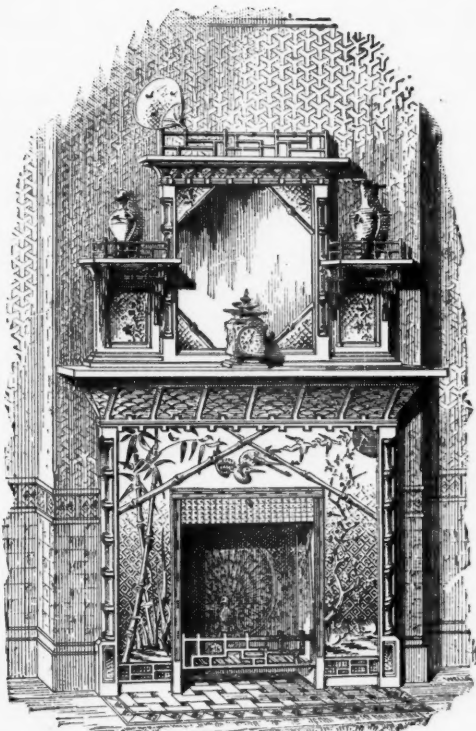
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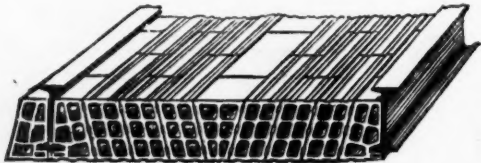
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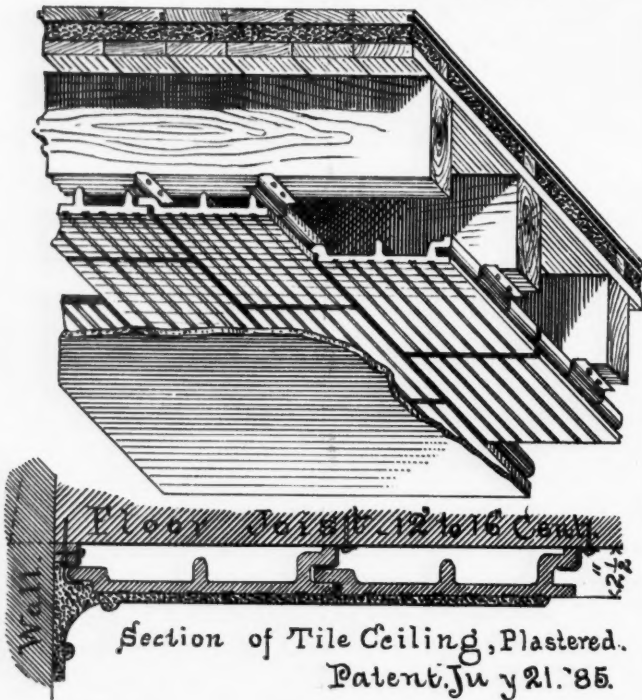
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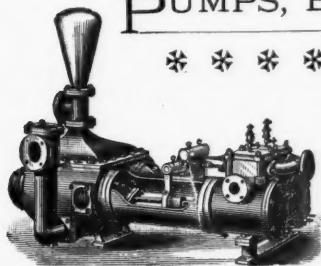
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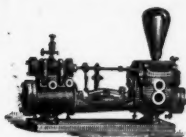
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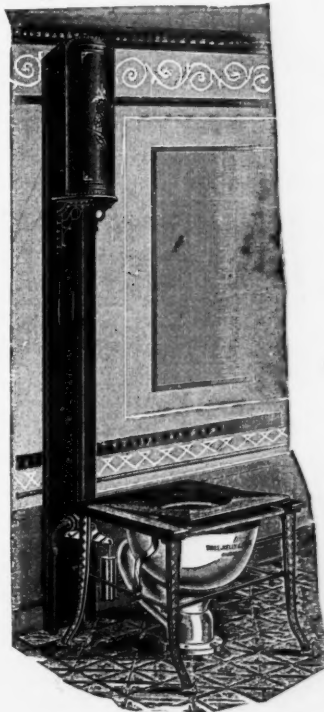


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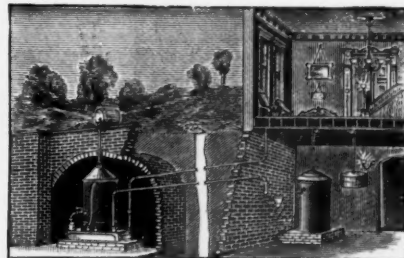
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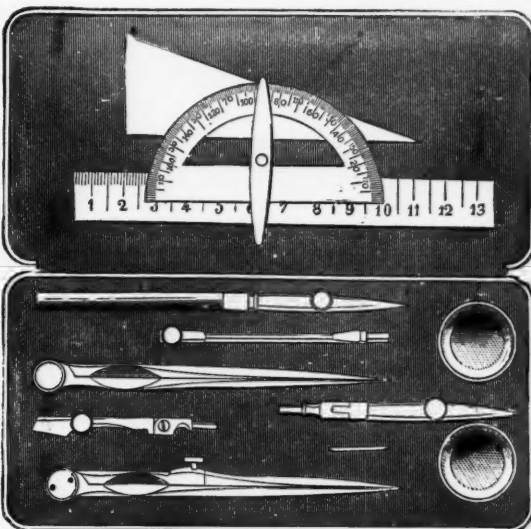
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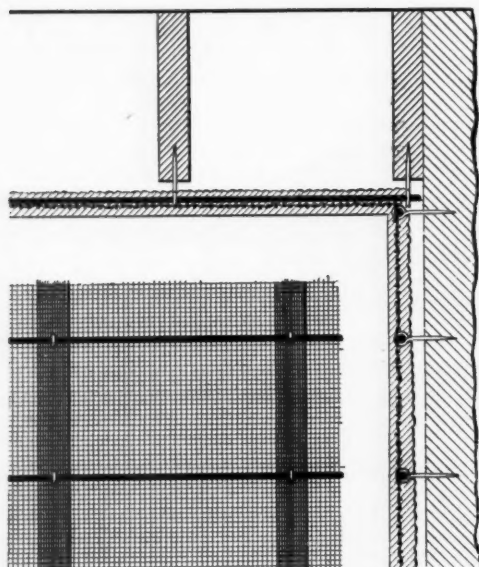
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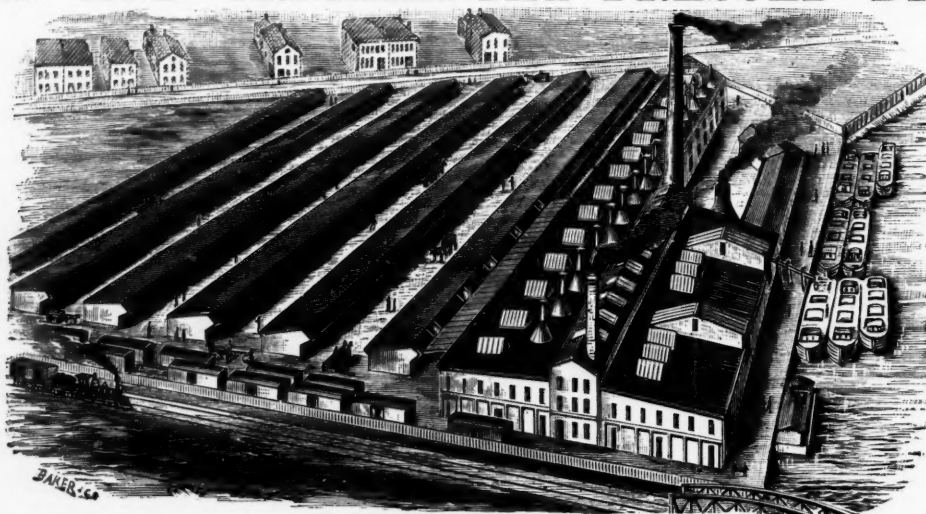
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THE INLAND ARCHITECT AND BUILDER.

Vol. VII.

No. 3

MARCH, 1886.

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THE *British Architect*, in its edition of January 29, paid a high compliment to American Architecture, the occasion being the reprint with the following comment of the illustration of the warehouse for Studebaker Brothers by Architect S. S. Beman, of Chicago, which appeared in THE INLAND ARCHITECT of November last:

A CHICAGO BUILDING—S. S. Beman, Architect.—We have selected this building for illustration as a very good type of the best modern American business premises. Moreover we seriously believe there are comparatively few of its kind to be found in our English streets. Here is a street frontage in which the maximum of light has been obtained along with breadth of surface and dignified simplicity. We think it is eminently satisfactory, and when we remember the fussy pilasters, moldings, foliated spandrels and gorgeous bosses of carving in some of our London streets, we are almost tempted to say too much of this modest and unaffected piece of American work. This is certainly the work we should apply for were we in need of an architect for a London street. We have reproduced the drawing from an excellent plate in THE INLAND ARCHITECT.

It is exceedingly graceful in this English architectural authority to thus recognize, and by kindly words of approval encourage the members of the profession in this western hemisphere, where, if the same advantages are not enjoyed, there is a comparative freedom from tradition that cannot but be looked upon with a certain wistfulness by those who are living among older and more exacting surroundings, and still wishing for a true progression in their art.

INDIAN education may now be said to have passed through the experimental stage, and seems to have set for itself definite lines of procedure, toward securing the greatest practical good to the greatest number. We say set for itself, because the present system that is recommended by those most experienced in Indian character and teaching, has grown out of long years of perverted effort of the "red shirts for the Hottentots" order of the good but impractical church missionary societies, that have so long believed that a clean shirt and a good book would make a civilized Indian. Fortunately, just as the western expression that "a good Indian is a dead one," is about to become an axiom, the practical wisdom of such men as the Hon. J. H. Oberly, of Illinois, the present Indian school superintendent, discovers that the intellectual capacity of the Indian is not equal to his natural inclination to laziness, and that the way to make him a good Indian is to teach him the art of performing manual labor. According to the latest report issued from the government press by Mr. Oberly, there are 200 schools supported by the United States government in which Indian children are educated, with an attendance of 8,143, beside other schools which are supported by states and religious societies, aggregating about 1,171 pupils.

THE report states as a fundamental principle that the Indian must be taught to work with his hands, and is in favor of compulsory education. Farming is chiefly recommended, but a knowledge of the use of tools generally seems to be the great need, making book knowledge an important but secondary element. If the government would go further, and when the Indian is educated give him responsible positions among his own people, make them Indian agents and the like, instead of the incompetent and too often vicious white men who have so long misrepresented the government among them, we could hope to see the Indian a progressive and

valuable citizen, instead of an exterminated savage. England has pursued this policy, and we find her Canadian Indians as educated, refined and well governed as the white people, among whom they live in peace and harmony. And what applies to the red American also applies to the white, but with greater force. Unless we, in this generation, make strong efforts toward establishing and maintaining institutions of practical, instead of theoretical training, the next will retrograde instead of advance in all the applied arts which, in this new age of progress, means a loss of vital force beyond computation. It is not a good sign for the future, however, when the president of the largest educational institution in the West says that it was with the utmost difficulty that he induced the faculty to establish a chair of chemistry, evidently thinking more of a Greek root than the entire field of physical science.

NOTWITHSTANDING all that is said and admitted about the mercenariness of clients, the crudeness of popular taste and the general lack of a critical appreciation of the merits of good buildings, the most serious obstacle to a due recognition of the architectural profession by the public is the unprofessional quality of a large portion of its membership, and often suggests a doubt whether they really know what professional conduct is. Witness the following transaction of recent date in a prominent western city, where a couple of architects, in their eagerness to secure employment, sacrificed every consideration of personal profit and professional dignity. In the city of A it is proposed to erect a \$50,000 building for the Young Men's Christian Association, and part of the funds have already been pledged. Regardless of all professional etiquette, the firm of B. & C., architects, addressed a written communication to the building committee, soliciting employment for this work, and offering to make "all the drawings, specifications, details, etc.," and to superintend the building *free of expense, regardless of what the structure may cost.* We are not informed of the final decision of the committee, nor of their opinion of architects who solicit work in this ignoble fashion, but the affair suggests a few very obvious reflections. As for the architects themselves, they could hardly occupy a more humiliating position than that they have voluntarily and gratuitously chosen in this transaction. Had they referred to similar buildings which they had designed and erected, or offered any other evidence of superior qualification for the work they solicit, their position would be different; but to make an appeal solely on the ground of the cheapness of their services, is, by implication, to confess that cheapness is their chief merit. A class of disreputable doctors often advertise "No cure, no pay," but these architects have gone a step beyond the doctors in offering to take no pay in any event.

CAPABLE talent does not go begging for employment in this gratuitous fashion. Architects who can command pay for their services are not apt to urge them as a gift on building committees. Moreover, employment secured in this mendicant fashion seldom brings any profit or honor with it. The self-abasement at the start invites a series of slights, snubs and bitter humiliations throughout. Good work fairly paid for brings most thanks and favors as well as most profit. The old plea that a man has a right to work for nothing if he chooses will not answer in this case. An architect is *ipso facto* representative of the architectural profession, and as such is not at liberty to solicit work or otherwise conduct himself in a manner calculated to bring his profession into public contempt. After he has been selected as architect for a proposed building he may contribute as large a donation as he chooses

to the cause, either in cash or in personal services; but to offer such donation or gratuitous service as an inducement for the award of the work to himself, is as disreputable in an architect as it would be in a lawyer or a physician. Such parties consciously set a depraved example, audaciously trusting to the superior honor and self-respect of their confreres for the success of their strategy. Were the custom to become general of soliciting work in this manner their sole ground of preference would be taken away. They would not dare inaugurate the practice, therefore, but for a confident belief that the most of the profession will be too honorable to resort to it under any circumstances. As for the committee, a sensible business man would be very apt to inquire whether it might not be wiser, safer, and ultimately cheaper to intrust their work to a thoroughly responsible and capable architect at a just compensation, than to risk the fifty thousand dollar building in the hands of those who intrusively offer their services for nothing. A good architect often saves more than the amount of his commission in his conduct of the work apart from the superior quality of the building. Moreover it is contrary to human nature to work without pay, and when people in any business make offers of this nature it naturally suggest suspicion of some stratagem by which they expect secretly to derive ample profits for their liberality at the expense of a confiding customer.

A TUBULAR tunnel under the waters of the straits of Northumberland, between Newfoundland and Prince Edward's Island, to connect the latter island with the mainland, is under consideration by the local government of the island. The plans which have been submitted to and approved by the committee of engineers, including Professor Bull, of New York; William McAlpine, C. E., past-president of the American Society of Civil Engineers; Walter Shanly, C. E., M. P., and other Canadian engineers, have been laid before the Canadian government to be acted upon at the next session of parliament. The difference, as explained by Professor Bull, between this tunnel and the Mersey and the Thames tunnels is that the latter cases the tunnels were dug through the ground, while in the present scheme an iron tunnel will be constructed resting upon the bottom. Surveys, four of which were made show a plain upon which the tunnel tube can be laid successfully, showing the depth of water from thirty-six to eighty feet. The tube which will be six and one-half miles long will be eighteen feet in diameter, made in sections and composed of chilled white cast iron four inches thick or more, according to the depth. This material, of which Hayden H. Hall, of New York, is the patentee, is said to be non-corrosive in sea water, and at present prices costs about \$14 per ton or about \$84 per foot of tunnel. The sections will be bolted together by inside flanges, making a water-tight rust joint. Where the depth of water will allow, the tunnel will rest on the natural bottom, otherwise a channel will be dredged. The tunnel is made necessary because of the impossibility of keeping up communication the year round.

THE small appreciation the average public officeholder has for things architectural is too well known by the monstrosities that are erected in all parts of the country in the shape of public buildings, structures that might have had some pretensions to architectural effect had not the influence of the public official been greater than that of the architect. But there is one building, the capitol of the state of New York that, though not free from this same political influence, as the senseless removal of that truly great architect, Mr. Fuller, some years ago indicates, is one of the finest public buildings

in the world, and now a handful of vandals in the shape of assemblymen, in search of a smoking-room, or as one of them was candid enough to explain, "he wanted a place to sit and smoke and look out of the window," for this propose that a room be partitioned off the grand and beautiful lobby, and a door cut through the wall into the assembly chamber. This would cost months of labor, and not only ruin the entrance to this magnificent hall, but take a support from the roof where there is none to spare. This latter fact might bring a just retribution if the mad scheme should be carried out; but the state would lose a beautiful building as well as a lot of bad politicians. Why the ephemeral action of a state legislature should have so much power in the destruction, as well as the creation of public buildings, which should be built for the centuries, is one of the mysteries of this enlightened age. In the case in point, it is certainly to be hoped that the people will call a halt before it is too late, to stop this contemplated piece of vandalism.

Ultra Practical and Ultra Theoretical Architecture.

BY ELLA S. BABBIT.

WE are a nation of extremists. Having seized upon an idea or principle, we carry it to its furthest limits. Like the little girl in Longfellow's rhyme, "When we are good we are very good, and when we are bad we are horrid." We possess no spirit of compromise; know no middle ground.

This one-sided and uncompromising spirit is exemplified among our architects. Two opposite and equally erroneous ideas of architecture are held by its American students and by people in general—the ultra practical and the ultra theoretical. The first-class, those holding the ultra practical idea, would degrade architecture to a mere trade, on a par with carpentry and shoemaking. The second class, the ultra theorists, ever remember that it is one of the fine arts, and accordingly they would make every tenement house or railway station a Gothic cathedral on a small scale, forgetting, as mortals too often do, the eternal fitness of things.

The first class is the most numerous. It embraces all people outside the profession except a few enthusiastic lovers of art, and includes too, many architects as well; it include those men to whom architecture is not a profession but a business; those who plan buildings so that the best appearance may be obtained for the least money; who work simply for the pay and are inspired with no love of the art or desire to improve the architectural standing of our country.

Outside the profession the people of America are sadly ignorant and indifferent to architectural principles. They know nothing of what comprises architectural fitness and beauty. A fringe of fret sawing around the verandah satisfies them as well as the most elaborate carving. When a church is to be built, instead of having the ceiling carved and painted, they paste *paper* carving and paper pillars and paper statuary on their walls. It is cheaper and looks just as well at a distance. Perhaps they send the money saved by this shoddy device to the heathen, little dreaming that by such ill-timed economy they are educating their own children, not only to be heathens from an artistic standpoint, but to be frauds and cheats.

I remember, when I was a youngster, we had our church "fixed over," and when we came to dedication we were surprised to find a door back of the pulpit. Knowing the position of the pulpit I used to puzzle my brains wondering where that door opened. With a child's curiosity I proceeded to examine for myself, and found it was only a *painted* door. The effect of that discovery upon my mind was never effaced. Vain the teachings of truth and sincerity from that pulpit; the church itself taught deceit. In the upper story of our own house I noticed a pair of blinds that were for ever closed. In solving the mystery I discovered that they were blinds without windows! It would have been well if my practical father had omitted the gilding on our parlor walls and put a window behind that blind. In being too practical we may overreach the mark. Useless is it to preach truth in a church that is a standing falsehood; to instruct our children in honesty when our very houses teach them to deceive, to wear a false appearance.

If only the world could be instructed, if people could see that they can be practical in other ways than in saving money by shoddy building! If only fathers and mothers could realize that in constructing their houses they are educating their children, teaching them the most lasting lessons in honesty or deceit, as well as in true artistic taste! However small or inexpensive a building, it can be perfect in symmetry and proportion, and in the smallest details of color combination.

Thus far the fault has been one of carelessness or ignorance. It is not because our people are too busy or too niggardly to encourage good architecture. The trouble is their eyes have never been opened. They are practical people; and when they are brought to see that good architecture has a real advantage over shoddy, they will have good architecture and no other.

As to the ultra-practical architects, they are, at present, I suppose, a necessary evil. They exist in proof of the maxim that the supply must equal the demand. When people are educated up to higher views of the subject, this superficial and soulless class of architects will disappear from off the face of the earth. For the present let them read and ponder well the words of Ruskin: "Architecture is not merely a science of the rule and compass; does not consist simply in the observance of just rule and fair proportion. It is or ought to be a science of feeling more than of rule; a ministry of the mind more than of the eye."

Some one has said that to be an architect one must be a metaphysician. Perhaps there is truth in the saying, but coupled with it should be the words: "To be an architect one must be a faithful and skillful handicraftsman." As was stated at the beginning, the ultra-theoretical architects are as sadly in the wrong as the ultra-practical. This ideal and altogether utopian way of viewing and practising the profession is the result of a narrow-minded and excessive study of the artistic notions of our day as they are set forth in the various books on art and æsthetic magazines. From these our young and enthusiastic architects imbibe, perhaps, a true appreciation of the art, but neglect to see that their architectural "grace be duly seasoned with salt." We find the expression of these ideas in the pretty, doll-house buildings, so common in our smaller cities; frail, pretty structures they are, but more appropriate to be placed on the high shelf of an art museum than for the wear and tear of every day life.

True architecture, like true art of any kind, is not the development of æsthetic fancies or of elegant trifling. Let the enthusiastic and theoretical young architect remember that to be successful in his profession he must possess something more than fine ideas and knowledge borrowed from books. He must have a realizing sense of the practical needs of real people in real houses. The practical people who consider architecture a trade are not altogether wrong. It is just possible that one may aim too high as well as too low. The common work which evidently aims at no pretension of art, yet possess something of artistic charm, is more pleasing than a work planned on a grander scale but deficient in its execution.

What American architects need and American people (for the architects will meet the requirements of their clients) is to avoid both the over practical and the over fanciful in their buildings. Steering clear of both extremes they should seek that happy middle ground where house-building, the trade that meets our actual wants in the most practical way, and architecture, the highest and noblest of the fine arts, join hands.

Old Bits of Baltimore.

BY W. CLAUDE FREDERIC, ARCHITECT, BALTIMORE, MD.

THE City of Monuments does not impress a stranger as being very ancient. The few old buildings and quaint bits of architecture we have are slowly but surely falling a prey to the insatiable greed of the property speculator. One of the most noticeable features of the older streets in Baltimore are the stepping-stones, as shown in the sketch of the University of Maryland. These ancient modes of crossing wet streets were found so very convenient that they have been allowed to remain, even in streets well supplied with sewer openings, and, as the city is very hilly, the water in a heavy rain storm comes rushing down into the valleys, quickly flooding the streets, and it would be almost impossible to cross some of them were it not for these stepping-stones.

The enormous old wooden pumps, also, many of them covered with moss, look quite picturesque, especially when one sees several pretty, laughing maidens getting water from them in the streets of "Old Town," many of the older residents yet fondly believing that the water derived from this source is purer and better than that introduced by our splendid new supply, which is so vast that over three hundred millions of gallons daily runs to waste over breast of the dam.

In the center of the city, surrounded on three sides by the lofty rear walls of the well known Barnum's Hotel, stands the old Banner Club House, built in 1780. It was built—as was many another old building here—of imported brick, and was covered with a thick coat of plaster, which has long since cracked off in many places. This building was, for years, thought a marvel of architectural beauty and convenience. Here it was that the old beaux and belles used to meet by early candle light for their musicales, and to dance their favorite minuet. It was a favorite resort of Washington and La Fayette when in the city, and was also noted for its terrapin suppers. Its was originally surrounded by fine grounds,

and two of the old forest trees yet remain to shield it from the wintry blasts.

In St. Paul street, about two squares from the old Club House, is the old Masonic temple, now used by the equity court. This was one of the first Masonic buildings in this country, and is, even yet, a very tasteful building, built of massive blocks of yellow sandstone, and was, in its day, very convenient for the purposes for which it was intended.

In the upper right-hand corner of the sketch will be found the old "Kaminskay Inn," the oldest building in Baltimore at the time it was destroyed by fire a few years ago. It was built in 1750, and in its day was the favorite resort of celebrities visiting "Baltimore Town." This sketch was taken from a photograph, as also the following expressive notice that was placed upon the front of the building: "Ye stoop is only to bee used by ye qualitee folkes."

On Green street is the old Egyptian gateway of the Westminster Churchyard. This gate was placed in its present position about thirty years ago, and was taken from some very much older place. I have been unable to ascertain from whence it originally came. It is about ten feet high, and built of very porous grey sandstone, and is now quite ruinous. In this churchyard are the remains of Edgar Allen Poe, of "Raven" fame.

I believe that Baltimore is the only city in the United States that has a bona fide coat of arms. It was founded on the arms of the Lords of Baltimore, and the motto—"Manly deeds, womanly words"—is also taken from their arms. The supports—a farmer and a fisherman—are quite appropriate to Maryland, the state arms being the same, only without the monuments.

At the upper end of Broadway, in the beautiful grounds of the Samuel Ready Asylum, stands what is probably the only monument to Christopher Columbus in the United States. Tradition handed down, somewhat imperfectly, the history of this ancient monument, and only the outlines of the story can now be gathered. It was erected in 1784 by Count de Amamor, who was then the French consul for Maryland and Virginia. On the twelfth of October of that year it was dedicated to the discoverer of America with appropriate ceremonies. The material of which the monument was constructed was probably brick, covered with a thick coating of some impervious cement, capable of withstanding the ravages of time, much better than marble, brownstone or any of the modern building materials. The shaft now has a soft yellow tint, and on the north side is almost covered with a delicate green moss. On one side, deeply engraved, is this inscription:

CHRIS COLUMBUS
MDCCLXXXIV.

The monument is an obelisk in form, about thirty-five feet high and eight feet in diameter at the base. A widely extended and popular French organization of that period was the "Sociedad Latino-Americano," the purpose of which was the perpetuation of the name of Columbus and the memory of his discoveries. The society met regularly at the mansion of the Count de Amamor, on his estate, then about two miles from town, and the monument was planned and erected in furtherance of that aim. For many years after the departure of the General de Amamor, and while the estate was in other hands, the monument was practically hidden from public view, owing to the trees and underbrush that grew up around it in this neglected part of the grounds. It remained in this condition until 1862 when the present owners of the property had the underbrush removed and the grounds once more put in good order, and now the old monument is again receiving public attention. It was often said by uninformed persons that this monument was built to commemorate a favorite horse of the count, and this story, for years, gained currency, but was without foundation, as the inscription shows.

On Edmonson avenue, extended, about a mile west of the city limits, stands an old lodge gate, with the remains of what was once a fine avenue, but everything connected with it has now disappeared but the old gateway, and this, too, is soon to be destroyed to make room for modern houses. This estate formerly belonged to the Duchess of Leeds, but is now divided up into building lots.

The university building shown was, I believe, planned by Latrobe, one of the architects of the capitol at Washington, as well as a number of the principal public buildings of Baltimore. It is now used for the Baltimore Medical College, and the great dome is over the principal dissecting-room.

There are a number of other quaint old buildings, stone bridges, mills and old milestones around the city, each possessing a peculiar interest of its own.

The Modern Mechanic.*

BY E. F. FASSETT, ARCHITECT.

THE lack of competent, reliable and honest builders and mechanics, the want of interest taken by them, not only as to their own education and advancement, both theoretical and practical, but to those who are to follow them in the building trades, is fast becoming a question of great moment to the building public, and more especially to the architectural profession.

Year by year the older builders are leaving their field of labor. Are their places being filled with such men as are now and will be in the future required? We must answer in the negative. Comparing the workmen of this age with those of former ages, we find that the modern mechanic is far inferior in practical construction and handiwork. Why is this?

The former took great pride in his work, and strove to make each and every piece of it superior to his preceding production. The latter seems to work for mere personal greed, with no ambition to perfect this work as an art. With a fair knowledge of drawing the former could and was expected to make his own working plans from the architect's scale details. He felt that a great portion of the responsibility of the work fell upon him, and therefore took great care in construction.

He had served his bounden time as an apprentice, and under faithful guardianship learned to love and respect his calling. As he advanced in practical knowledge, better and more difficult works were entrusted to him. Before he could gain admission as member of any trade guild, he was obliged to pass examinations to prove worthiness and proficiency.

Our nineteenth century mechanic has but very little knowledge of drawing, many of them not being able to read and understand the simplest mechanical sketch. He does not bother his head to lay out his work, as long as the architect is willing to do it for him. He thinks the time served as an apprentice wasted, so long as his Trade Union says that his wages shall be equal to those who are better educated than himself.

What is the reason of this decline?

1. Because the system of apprenticeship has been almost completely abolished.

2. The manner of letting work to the lowest bidder regardless of his financial and mechanical resources. Because the owner wishes to get more for his dollar than it will actually buy.

3. The attempt of the Trade Unions of the present day to prevent the employment of but a limited number of apprentices. Their outrageous and communistic laws, that a scrub shall have equal rights, protection and wages with those who have served several years of patient study, labor and toil. And last, but not least, is the general contractor, with a smattering of legal, medical and theological knowledge; a leader in ward politics; a shrewd calculator in buying and selling notes; having a strong ambition to become a popular, political leader; he imagines that he, above all others, is the one to excel as contractor and builder, with little care as to the strength and stability, the thoroughness and finish of the work he has under way, no pride that the building should be the mark of his mechanical ability, he enters the field for the sole purpose of trading on the labor of his help and the commission he may receive from material men. He strives to get all of the owner's money he can, giving as little in return for it as possible. How are these conditions to be bettered? How shall they be brought to the attention of the mechanic? What can be done to induce him to aim at perfection, to bring his work to a higher standard? are questions difficult of satisfactory solution. Some suggestions may be given, none of which, all things considered, will be quite satisfactory.

No superintendent or mechanic should be given employment in the constructing or finishing public or private works until he shall have given a guarantee that he is fully competent to perform the duties required of him.

That the architect should take a firm and decisive stand against the letting of contracts to the lowest bidder, simply because he is the lowest.

That he should insist upon the discharge of any workman when he has sufficient reason to believe the man is not competent or fit for his position. By rejecting each and every piece of work that is not done in a perfect and workmanlike manner. By these means the mechanic may learn that he must improve, and strive toward perfection in his special line of trade, or seek some other means of livelihood.

To help the man, we must seek some way to better educate him in this special line of building trades.

Of necessity, we must look to the humbler classes for our coming builders and mechanics. It is our duty to see that they have the opportunities to receive a satisfactory education at the least possible expense to themselves. If the present trades unions will not assist in this work, and the contractor refuse to take the care and responsibility of teaching an apprentice, we must, of necessity, resort to other, and perhaps better, means.

Strictly technical schools are without doubt the best for the purpose, but the public have not been taught the necessity of such institutions. Until they are we shall be compelled to rely upon our public schools and state universities. Training classes should be established in all of them, where the pupil can receive instruction in drawing and the practical use of mechanical tools. In our state universities higher classes in mathematics and practical mechanical construction should be formed.

Among our charitable and benevolent institutions none are better able to cope with this matter than the Young Men's Christian Associations. They have done much good in many ways, and can do still more, by opening free evening schools, for the laboring men especially. If the apprentice or student shall have completed a full course in any training

* Paper read before the second convention Missouri State Association of Architects, January 12, 1886.

school, he should receive preference in employment where the same can possibly be given. He should as well be protected by law from abuse and insult from trades-unions and striking gangs.

In the sixteenth and seventeenth centuries the members of trade guilds were allowed many rights and advantages, which poorer or less skillful workmen could not procure. Under the reign of Numa Pompilius, the bridge builders, owing to the great need of such workmen, were granted special privileges. Let the trades unions open evening schools and classes for the members, establish a series of lectures and debates, and they will accomplish more good to themselves, and their members in the end receive better wages and greater respect by the public at large. As man increases in knowledge, just so much he increases in the high esteem of his fellow man.

Lastly, upon the architect rests a large share of the work to be done; on him rests the protection to life and limb; upon him devolves the task of educating the general public to a higher and nobler appreciation of the greatest of arts. It avails him nothing if he has not the workmen to carry his ideas into proper execution. He should carry himself with dignity and standing that will gain for him the confidence and respect of his fellow man, stretching forth, at the same time, his hand to assist those who are on the lower rounds of the ladder. Invitations might, with propriety, be given to the mechanic to attend meetings of local and state societies, when matters are to be considered which are of special benefit to him. He should look with favor upon the workman, giving him his instructions cheerfully and willingly, and giving him due credit and praise when he has done the best that his ability permits.

We hope to hear opinions and discussions upon this matter from able ones of this Association. That the interest you all must have will gather in strength, until something will be brought about to stimulate our worthy artisan to the best there is within him. He aims too low who aims beneath the stars.

Every art has an origin divine. It is this divinity in the art that holds, fascinates and cheers. He works for dollars and cents. He should work to serve his age, to help build the temple divine. How beautiful, how systematic, without jar or discord, was the building of *Solomon's Temple*. Each part perfect in itself. Each part suited to the wants of another, perfected before presented to the spot chosen for erection, all inferior matter was thrown aside, only the best used, every fraction unfitted rejected. After each part was ready we can imagine the erection, slow, true, thorough, exact, beautiful; no noise, no dispute, no profanity was about the place, that place designed by the architect Divine. This temple did not come in a day, like a mushroom. It took years for its completion, yet when it was done it was a glory to God, a divine ideal perfected.

Let us not, in our own work, depart from this thought, that even in a stone, that seems but a useless block, there is within it a beautiful statue that is able to signify wisdom, goodness, strength.

Fireplace Construction.

APAPER on this subject was read recently at the Royal Institute by Mr. T. Pridgin Teale, F. R. C. S., of Leeds, and the following report is taken from the *Building and Engineering Times*: Mr. Teale explained that the principle of fireplace construction which he had been working out for the last three or four years had been written about and acted upon in the last century by Count Rumford, the founder of the institution. Mr. Teale pointed out that three evils result from the prevalence of bad principles in construction: 1. Waste of fuel and loss of heat. 2. Excessive production of soot and smoke. 3. Large addition to ashpit refuse by cinders, which are really unburnt, and therefore wasted fuel. The greatest offenders are the ordinary register grates. Iron all over, back and sides and roof, they are usually set in a chamber open above to the chimney, and imperfectly filled in, or not filled in at all, with brickwork. The heat escapes through the iron to this chamber, and thence is lost. Another fault is that the "register opening," in other words the "throat of the chimney," being immediately above the coal, submits the burning fuel to the full concentrated force of the current to the chimney, converting the fire into a miniature blast furnace. The second result of faulty construction in fireplaces is "undue production of smoke and soot." Smoke and soot imply imperfect combustion, and to this two defects in a fire mainly contribute one, too rapid a draught through the fire, which hurries away and chills below burning point the gas rising from the heated fuel. The other defect is too cold a fire, i. e., too small a body of heat in and around the fuel, so that the temperature of the gases is not raised to a point at which they will burn. A third result of bad construction is the "production of cinders." With good coal, cinders are inexcusable. They are unconsumed carbon—coke, and imply a faulty fireplace.

Mr. Teale then further explained the principles at which he arrived, as embodied in the following thirteen rules, which will probably interest many of our readers:

MATERIALS.—As little iron as possible. The only parts of a fireplace that are necessarily made of iron are the grid on which the coal rests, and the bars in front. The "economizer," though usually made of iron from convenience in construction, might be of earthenware, and so would be more perfectly in harmony with this rule.

SIDES.—The back and sides of the fireplace should be of brick, or fire-brick. Brick retains, stores and accumulates heat, and radiates it back into the room, and keeps the fuel hot. Iron lets heat slide through it up the chimney, gives very little back to the room, and chills the fuel.

BACK.—The firebrick back should lean over the fire, not lean away from it, as has been the favorite construction throughout the kingdom. The lean-over not only increases the power of absorbing heat from rising flame—otherwise lost up the chimney—but the increased temperature accumulated in the fireback raises the temperature of gases to combustion point, which would otherwise pass up the chimney unconsumed, and thus be lost.

BOTTOM.—The bottom of the fire, or grating, should be deep from before backwards, probably not less than 9 inches for a small room, nor more than 11 inches for a large room.

COVERINGS.—The sides of "coverings" of the fireplace should be inclined to one another as the sides of an equilateral triangle.

LEAN-OVER.—The "lean-over" at the back should be at an angle of 70 degrees. Commencing at the level of the top of the front bars, it should extend almost to the throat of the chimney, which, as a rule, will be about 28 inches from the hearth, or 16 inches from the top of the fire, and should extend so far forward that the angle where it recedes toward the chimney should be vertically over the insertion of the cheeks of the firegrate. This will be from 3½ inches to 4½ inches from the front of the fireplace, according to the size of the grate.

SHAPE.—The shape of the grate should be based upon a square described within an equilateral triangle, and the size to vary in constant proportion to the side of the square. For a moderate room, 8 inches determines a very useful size; for larger rooms, 9 inches, 10 inches, or even 11 inches, may be necessary. An area of grating of 100 inches in the square of the corners would give a grate fireplace large enough for a room 20 feet by 25 feet. The manner in which this principle can be worked out can be easily seen by studying the diagrams. This rule secures sufficient depth from front to back, and a constant proportion between depth and width, whatever be the size of the grate. Whenever a grate proves too large for a room, and in summer, when a smaller fire is needed, the size should be reduced in width by firebricks, the full depth being retained.

GRATINGS.—The slits in the grating, or grid, should be narrow, perhaps ¼ inch for a sitting-room grate and good coal, ⅜ inch for a kitchen grate and bad coal. When the slits are larger, small cinders fall through and are wasted.

BARs.—The front bars should be vertical, that ashes may not lodge and look untidy; narrow, perhaps ¼ inch in thickness, so as not to obstruct heat; and close together, perhaps 1 inch apart, so as to prevent coal and cinder from falling on the hearth.

RIM.—There should be a rim 1 inch or 1½ inches in depth round the lower insertion of the vertical bars. The object of this is to conceal the ash at the bottom of the fire, and to enable the front cinders to burn away completely by protecting them from the cold air. This rim contributes greatly to tidiness, and, as a rule, will prevent the need of any sweeping-up of the hearth during the day.

SHIELD.—The chamber under the fire should be closed by a shield or "Economizer."

ASH PAN.—Whenever a fireplace is constructed on these principles it must be borne in mind that a greater body of heat is accumulated about the hearth than in ordinary fireplaces. If there be the least doubt whether wooden beams may possibly run under the hearthstone, then an ash pan should be added, with a double bottom, the space between the two plates being filled with artificial asbestos, "slagwood," 1½ inches in thickness.

GENERAL.—A fireplace on this construction must not be put up in a party wall where there is no projecting chimney breast, lest the heated back should endanger woodwork in a room at the other side.

Mr. Teale concluded his paper with the following observations relating to the danger of fire: Seeing that improved fireplace construction involves increased heat about the hearth, an actual danger of fire will be created where the hearthstone rests on wood, unless the hearth itself be protected. It was, therefore, my duty to find out a means of protecting the hearth. With this view experiments have been made with ash pans with double bottoms and a small air-space between the ash pan and the hearth.

Our Illustrations.

Old bits of Baltimore; sketched by W. Claude Frederic, architect.

Club house, for the Farragut Boat Club, of Chicago; by Robert H. Rae, architect.

Design for gate lodge. Competitive sketch, second prize Chicago Architectural Sketch Club; by W. G. Williamson.

Residence, exterior and interior, of architect F. S. Allen, at Streator, Illinois. The house is picturesquely located on the brow of a bluff, overlooking the river.

The Commercial bank and office building, for George Spencer & Co., Duluth, Minnesota; by W. L. B. Jenney, architect, Chicago. Size 50 by 115 feet, Anderson pressed brick and cutstone trimmings. The building, which is situated directly opposite the new board of trade, is the finest office building in the city, and a very material advance over the other buildings of similar purpose, as well as an index of the rapid increase and prosperity of the city. W. E. Hale & Co., of Chicago, furnish the elevator. The total in cost is about \$80,000.

Burlington, Cedar Rapids & Northern Railway general offices; by Joselyn & Taylor, architects, Cedar Rapids and Des Moines, Iowa. Building 138 by 65 feet at extreme width; exteriors of local machine pressed brick, with trimmings of blue Bedford Indiana stone, polished Sioux Falls quartzite at sides of entrance. A central hallway leads back to the stairway which is in a central court, under a large skylight. Finish of yellow pine; vaults on each floor; heated by steam. Gives accommodation to all the officers and their clerks; cost about \$40,000.

Residence for Geo. A. Foster, Evanston; by G. Isaacson, architect, Chicago. This building is situated on Chicago avenue, south of Clark street, Evanston, and is built of wood, with brick cellar. The entrance leads into a spacious hall with grand staircase and arches, and elaborate stained glass windows. The parlor, sitting-room and dining-room are on the south, with wide sliding-doors between each, and into hall. The kitchen and back hall are placed back of main hall. Second story has five chambers, and bathroom and closets. The first story is finished in hardwoods, red oak in hall, natural birch in parlor and sitting-room, and antique oak in dining-room. The kitchen is yellow pine, and the chambers in white pine, all handsomely polished. The cellar has laundry, furnace and fuel rooms, and cold cellar. The cost, complete, is \$6,000.



Chicago Real Estate Board.

THE third annual banquet of this, the largest and most progressive organization of real estate owners and agents in the West, took place at the Palmer House on the evening of the 4th inst.

Two hundred guests sat down to a peculiarly richly appointed table and discussed a menu that was faultless. The tables were loaded with flowers, with here and there a setting, each symbolizing something appertaining to their profession. Those most marked was a log hut with a swinging sign above it, with swamp ground around, illustrating an old Chicago tavern in 1836. Another was a plot of ground with a fence of tuberose, with the regulation "for sale" sign, the entire piece being like many of the descriptions published of real estate, "quite flowery." The menu was elegantly gotten up, with a title page designed, it is understood, from suggestions made by the wife of a prominent member of the board, and which excited general comment.

The toasts, comparatively few, but all responded to ably, were not only exceedingly interesting, but humorous.

The speech of Will W. Baird, son of Lyman Baird, president of the board last year, and one of the oldest and more prominent members, made decidedly the brightest and most witty speech of the evening.

The Imperial Quartette, a delightful quartette of gentlemen deservedly popular, sang many songs which were greatly appreciated.

Mayor Carter H. Harrison and the Reverend Dr. Geo. C. Lorimer sat together, strongly suggesting "church and state."

The mayor spoke of the needed public improvements, but stated that Chicago was constitutionally unable to borrow money, all improvements being paid for from current funds, and until the law was changed very little could be done, and compared Chicago's \$2,000,000 of taxes with New York's \$23,000,000, and but twice the population.

S. H. Kerfoot was introduced by the chairman as a veteran who was a member of the first real estate organization, and he spoke long and eloquently upon the situation past and present.

Other addresses were made by various members, the toasts being as follows:

"Words of Welcome," Pres. E. A. Cummings.

"Our Guests," Hon. Thomas B. Bryan.

"The Honest Real Estate Agent; the Reliance and Trusted Land Steward of the Judicious Real Estate Owner," Willis G. Jackson.

"The Real Estate Owner," Ferd. W. Peck.

"The Law," Gen. I. N. Stiles.

"The Chicago Real Estate Board," Norman T. Gassette.

"The Last Words" were spoken by the Rev. Dr. George C. Lorimer. Dr. Lorimer spoke eloquently of the lack of moderate-priced houses for the middle classes, and said that this was driving the respectable people to the country, and fostering the bad classes.

THE ORGANIZATION.

The history of this organization is, in brief, that February 21, 1883, articles of incorporation were issued by the secretary of the state of Illinois to William L. Pierce, William A. Merigold and Edmund A. Cummings, forming the Chicago Real Estate and Renting Agents' Association, the three gentlemen named being directors. The name was subsequently changed to the Chicago Real Estate Board, with the following as its object:

The object for which this Association as formed is to enable its members to transact their business, connected with the buying, selling, renting and caring for real estate, and the loaning of money upon the same, to better advantage than heretofore, by the adoption of such rules and regulations as they may deem proper, and by enabling them to take united action upon such matters as may be deemed for the common good, and by such other means as may be determined upon by its members, which resolutions were adopted by a majority of the members present at said meeting.

The rules were amended to take in real estate owners as members. The fees and dues are now \$100 for each agent member until the board numbers 150 when it will advance to \$200. The fee for associates is one-

half this sum. The annual dues are \$30 for agent members, and associates one-third of this sum, dues to be paid semi-annually, in advance. The following are the Board's schedule of charges:

FOR NEGOTIATING AND MAKING LEASES WHERE RENTS ARE NOT COLLECTED BY AGENT.	
Stores and business property, lease not exceeding three years, charge on amount first year's rental.....	2½ per cent.
When term exceeds three years, add for each additional year.....	1 " "
Residence property, on total rent for term of lease.....	2½ " "
Ground leases, term not exceeding fifty years, on total rent for first ten years.....	2½ " "
(If appraised each five years, charge to be computed for the ten years on basis first five years' rental.)	
Ground leases exceeding fifty years, on appraised value of property at date of making lease.....	2½ " "

FOR MAKING SALES OF REAL ESTATE.

On a Sale for \$3,000 or less.....	5 per cent.
On a sale for \$10,000.....	5 " "
The first \$3,000.....	5 " "
Excess over \$3,000.....	2½ " "
On sale exceeding \$3,000.....	2½ " "

The board now numbers among its members the leading real estate agents and owners, and is becoming a power for good in the correct government of the great real estate interests of Chicago.

ABSTRACTS OF TITLE.

At the noon call of the real estate board, on February 19, the subject of the recent resolution of the county board to withdraw all privilege from the private abstract firms and manage the entire business was considered.

The meeting was called to order by President E. A. Cummings, about twenty-five members being present, who stated that it was suggested that a special meeting be called to take action upon the resolution of the county board in regard to abstracts. Mr. R. C. Givins said he believed this action if carried out and the private abstract firms abolished, would tend to withdraw foreign capital from the city. The abstract firms were doing the work with greater accuracy than the county could, as they employed 150 men, and there were scarce twenty experts in the city who can make abstracts properly. The effect of withdrawing these firms would be that it would be impossible to get an abstract in a year, to the greatest injury possible to business. Mr. Givins suggested that the board secure a room as near the court house as possible, and have every deed entered here and filed by the abstract firms. Although the county can exclude private individuals from abstract department, it is open by law to the owners or their attorneys. This plan would secure minutes of all deeds filed, and head off the other movement and enable the firms to make continuances.

Mr. Farlin indorsed Mr. Givins. It might not take the county a year, but a long time to make out abstracts. The county service was so inefficient that many owners would not take the recorder's abstracts. Mr. Talins moved, seconded by Mr. Bay, that a meeting be called by the secretary for Monday at three o'clock, and invite not only members of the board but owners and attorneys interested in the matter, to consult and perhaps take some definite action.

Mr. Mead moved that a committee be appointed to draft a set of resolutions on the subject to be presented at the meeting on Monday, and suggested Messrs. Morey, Givins and Baird, to which was added Messrs. Cummings and Mead, with Mr. Morey as chairman.

At the special meeting of the board, February 22, President Cummings occupied the chair, and a general expression of opinion was advanced by a large number of those in attendance. The following resolutions were presented by the committee. They were read by Mr. Morey, who moved their adoption:

WHEREAS, In pursuance to a resolution adopted by the board of commissioners of Cook county, the recorder has issued a notice to the different abstract firms, companies and corporations that on Saturday, February 27, 1886, they must withdraw their employees from his office, and that after that date he will deny access to the original instruments and records in his office to all parties desiring to make copies or abstracts of same for speculative purposes or for their own private gain; and

WHEREAS, The execution of such order will create a monopoly in the making of continuances of title in the hands of the recorder, thus crushing out the competition that now exists; and

WHEREAS, The condition of the abstract department of the recorder's office, as shown by the report of the expert employed by the board of commissioners, is not such as to command the confidence of the public; and

WHEREAS, With the great and increasing demand for the examinations of title, averaging last year in the combined abstract offices over 75 orders per day or 22,500 separate abstracts yearly, it is an utter impossibility for any one office, working from one set of books, to supply this enormous demand; and

WHEREAS, The execution of such order will interfere with the transaction of real estate business and loaning of money upon real estate to an extent that will be disastrous to both owners and agents; and

WHEREAS, It is for the public good, as shown by past experience, that there should exist as many copies or abstracts of the public records as possible; it is

Resolved, As the sense of this meeting, that said order of the recorder should be rescinded, and the resolution under which it was made repealed.

Resolved, That a committee of five be appointed to prepare and present a petition to the honorable board of commissioners of Cook county, respectfully asking them to repeal said resolution and allow persons engaged in the making of abstracts of title the same privileges in the recorder's office they have enjoyed for many years.

The motion was then discussed. Mr. I. P. Wilson, the attorney for the board, thought that the system in vogue greatly facilitated the business of buying and selling real estate. The course suggested by the board of commissioners would make a monopoly in the hands of the county recorder. It was of interest to have as many abstract firms and as much competition as possible.

Mr. R. C. Givins thought there would be a calamity if the order was enforced. It would stop building, as many buildings were erected on loans, which could not be procured except upon the abstracts of two firms. The whole wealth of the great city had been dependent, since the fire, on the abstracts of title. They must have abstracts which could be relied upon. The recorder had no interest to keep up the records as a private abstract firm had. Some abstract firms had as many as seventy orders for abstracts in one day. If they should load up the recorder's office with one hundred orders, it would require three months to get out an abstract.

Mr. M. R. Barnard said it was questionable whether the county board had the right to make such an order. It was impossible for the recorder to make abstracts in every case, as he had not the records. The recorder

was a political office-holder, and could not make credible abstracts. He did not make credible abstracts. He did not take the word of others for this, as he knew it himself, two entries having been left out of an abstract which he had ordered.

Mr. N. N. Cronholm said the records should be open in order that interested parties might have an opportunity to see them. He had tried to gain access to the records, and discovered that he had to bribe employes in order to accomplish his purpose. He had discovered that the abstract firms were more accommodating, and had gone to them for his abstracts and information.

Mr. F. H. Colyer said the abstract business was a question of confidence. People had confidence in certain abstract firms and patronized them.

Mr. Charles Pope said it was a question for the whole people. The recorder could not be held liable for errors made. It was a question of responsibility and reliability. He exhibited an abstract made by the recorder in 1885, in which he showed two errors. Such abstracts were submitted to the lawyers, who were blamed because they objected to the recorder's abstracts.

Mr. J. W. Farlin said before the recorder engaged in the abstract business he should have his books correct.

Mr. J. P. Galloway exhibited a deed which was recorded by the recorder, conveying property in Nebraska, which was not signed nor acknowledged, but for which a charge of sixty cents was made. He had concluded that the recorder would record a wash-bill if it should be taken to him.

Mr. Reynolds referred to the order as a direct menace to every citizen of Cook county. The recorder and his employes were there for the purpose of imparting information to the whole people.

Mr. Ernst Prussing opposed the creation of a monopoly of any kind, and that was what was meant by the order of the county board. It was not a question of mistakes, but one of responsibility. It was beneficial to have several abstract firms. The recorder's office was not in condition to make abstracts. They should not make a wrong move, as they might build up monopolies.

Mr. Thomas B. Bryan was opposed to having abstracts made by elected officers, as it had always been a failure. The question was, were they to encourage a move that would paralyze business? At the present time it was impossible to furnish a perfect abstract of title from the recorder's office. The enforcement of the order of the county board would result in time in an absolute paralysis to the real estate and loan business.

The president read the resolutions again, after which they were unanimously adopted.

The president appointed as the committee to ask the county board to repeal the order passed Messrs. Thomas B. Bryan, H. C. Morey, J. P. Wilson, W. D. Kerfoot, and M. R. Barnard.

Mr. M. R. Barnard submitted the following resolution, which was unanimously adopted:

WHEREAS, The best interests of the public are served where the greatest competition exists; and

WHEREAS, Under the existing condition of the records of Cook county, the enormous number of documents filed averaging now over one hundred thousand per year, it is practically impossible for any new persons, firms, or corporations to enter upon the business of making title examinations, be it

Resolved, As the sense of this meeting, that the tract indices to the records in Cook county should be kept posted up and placed with the public recorder's office of said county, and made accessible to all persons desiring to examine or copy the same.

The committee met and planned a thorough canvass of the business district for names to support their petition, and by the appointed time had secured the names of four thousand one hundred and nine property owners, the committee finding that the more property a man possessed, the more willing he was to sign.

On the day of the limit given by the commissioners, both they and the recorder were enjoined not to proceed in the matter. The latter was also enjoined not to complete certain abstract books, the point being to test his authority to make abstracts, or of the county board to require him to do so. The county filed a motion of withdrawal of the first injunction, but the time for the argument has not been set.

The board met in monthly session on the 3d instant. The following new members were received: Active—M. E. Greenebaum, George G. Newbury, Percy W. Palmer, Henry G. Foreman, W. F. Lubeke, J. Donnersberger, D. S. Place, William Loeb, and Byron A. Baldwin. Associate members—P. L. Garrity, B. Hagerman, and F. B. Peabody. H. C. Morey reported that the special committee on the abstract controversy had obtained 4,109 signatures to the petition which they presented to the county board. That body had referred the petition, which, in brief, asks that abstract firms shall have access to the records of the recorder's office, to the Committee on Court House and Records. E. A. Cummings, president of the board, stated that he had received a communication from the Committee on Records requesting the board to appoint a committee to confer with them on the abstract question. M. R. Barnard, H. C. Morey, W. L. Pierce, J. P. Wilson, and E. A. Cummings were constituted such committee. R. C. Givens reported that the Committee on Advertising recommended that the board patronize the papers granting cheap rates.

Norman T. Gassette urged the importance of the auction sale of real estate at Central Music Hall, March 18, and criticising members who had refused to list property. E. S. Dreyer, S. M. Moore, and N. A. Merigold were appointed a committee to investigate the reliability of all the insurance companies in the city and report a list of the same for the patronage of the board. A committee was also named to draft an equitable brokers' contract for the sale of property.



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 Thursday of every month, at 15 East Washington street, Chicago. Annual meeting first Thursday in October, 1886. Louis H. Sullivan, Chicago, 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, 1886. F. B. Hamilton, secretary.

THE ARCHITECTURAL ASSOCIATION OF IOWA meets second Wednesday of August, 1886. 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 Thursday, July 15, 1886. 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.

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.

CHICAGO ARCHITECTURAL SKETCH CLUB.

The meeting of the sketch club of February 15, was called to order at 8:30 P.M., President Harry Lawrie in the chair. Pursuant to instructions, Treasurer C. A. Kessell read the names of the members who had not paid their dues for 1885. During the discussion which followed, the treasurer explained that these delinquents had been notified repeatedly of the penalty should they not pay up before this meeting. The advisability of dropping the names of all who had not paid all dues for 1885 was discussed, but no definite action was taken, the whole matter being laid on the table for future consideration. Sketches were presented in competition, the subject being the second of the series, an "Eight Room Stone House." The result was, "Rough," W. G. Williamson, first prize; "Rats," Irving K. Pond, second prize; and "Nevermind," O. R. Enders, third prize. The choice was shown by the ballots to be a close one.

The paper of the evening was entitled "Stonework," and was read by Mr. J. F. Hetherington. It proved an exhaustive treatise of the subject, and was well illustrated on the blackboard. At the conclusion of the paper Mr. Hetherington was given a hearty round of applause and a vote of thanks for the excellent treat he had given the club.

The balance of the evening was devoted to the discussion of the paper in which President Lawrie illustrated the present condition of the stonework of the county court house, several of the members expressing their idea of the cause, remedy, etc. Mr. Beaumont spoke briefly of some of his European experiences, illustrating the more important points upon the blackboard.

Among the visitors were seen T. L. Johnson, of James W. Queen & Co., Philadelphia, and E. O. Blake, of the Chicago Anderson Pressed Brick Co. The latter was made an honorary member at a recent meeting. After adjournment both gentlemen expressed themselves as having been highly entertained, and much pleased to note the remarkable success of the club.

The meeting, March 1, was entirely devoted to sketching, the subject being a balcony, the rendering of which developed many new and admirable forms. The general expression of members after an evening sketching is that it is a benefit as well as a pleasurable evening work.

The next meeting, March 15, will be an evening with I. K. Pond. The subject of his paper is "Polychromatic Ornaments," and will no doubt be received by a large audience.

PLASTERERS' UNION.

At a largely attended meeting of the Plasterers' Union, held on the 4th instant, at No. 36 La Salle street, for the purpose of fixing upon the number of hours that should constitute a day's work, and the pay per diem of a union plasterer for the season of 1886, the union decided to allow its members to work for not less than \$3.50 per day, and that the labor of eight hours should be called a day's work. This decision was unanimous.

CHICAGO BUILDERS AND TRADERS.

The adjourned meeting of the exchange to consider the amendment to the state lien law, was held February 26, President Geo. C. Prussing in the chair. The secretary read the minutes of the previous meeting, and referred to the full report of the exchange's attorney's remarks at the previous meeting in the Intermediate News Number of THE INLAND ARCHITECT AND BUILDER, which was in the hands of the members. There was an unusually large attendance, and the expression in regard to the motion which was offered at the previous meeting, was general. The speaking was led by W. S. Ellis, an attorney, and the general impression given by that gentleman's opinion, and the practical experience of members, was that the present lien law of Illinois was a protection to the contractor only; and to the sub-contractor and the material dealer it was worthless. The law formed by the old Mechanics' Institute, in force from 1863 to 1868, was spoken of as a model.

The resolution as read previous to voting, was as follows:

Resolved, That the chairman appoint a committee of five to secure the coöperation of kindred societies and interested parties throughout the state in securing the passage of a simple and effective lien law, which shall secure the payment, so far as possible, of all labor and material furnished, and that the committee be instructed to consult the attorney of the exchange in drawing up such an adequate law, to be presented to a future meeting of exchange.

The resolution was finally carried by a three-fourths vote, and Messrs. A. B. Cook, Wm. E. Hinchcliff, Wm. E. Frost, A. Kroeshell and A. E. Elmers appointed as the committee to report at a future meeting.

A vote of thanks was extended to E. E. Prussing and W. S. Ellis, and the meeting adjourned.

ILLINOIS SOCIETY OF ENGINEERS AND SURVEYORS.

In response to a call issued by Professor I. O. Baker, of the Illinois University, a number of the engineers and surveyors of the state met at Champaign, Ill., on February 10, the meeting lasting three days.

The first meeting was called to order by Professor Baker. C. G. Elliott, of Tonica, G. F. Whiteman, of Peoria, and T. L. Johnson, of Philadelphia, Pa., were appointed a committee on permanent organization, and reported the following officers of the meeting: President, Professor I. O. Baker; Vice-President, D. J. Stanford, of Chatsworth; Secretary, A. H. Bell, of Bloomington.

After the adoption and signing of the constitution by thirty-five charter members the following officers were elected to serve one year: President, Professor I. O. Baker, of Champaign; Vice-President, Daniel Gordon, of Moline; Recording Secretary, Professor A. N. Talbot, of Champaign; Corresponding Secretary, S. A. Bullard, of Springfield; Treasurer, Geo. B. Ela, of Bloomington; Executive Committee, C. G. Elliott, of Tonica; A. H. Bell, of Bloomington; L. D. Braucher, of Lincoln. The balance of the time was devoted to the reading of the following papers: "Drainage Districts and the Construction of Drainage Canals," A. H. Bell. "The Highest Attainment in Drainage," E. D. Shreve, of Bucyrus, Ohio. "Construction and Preservation of Reservoirs," Daniel Gordon. "Municipal Engineering," A. H. Bell. "Road Improvement," C. G. Elliott. "Pile Foundations," F. J. Sager, of Marysville, Ohio. "Topographical Surveying," C. W. Clark, of Champaign. "Bridges," L. D. Braucher. "Surveying," T. B. Kyle, of Champaign. "Legal Points in Sub-Division of Land," Warren Roberts, of Sandorus. "Sub-Division of Fractional Quarter Sections," Z. A. Enos, of Springfield. "Sewers for Small Cities," S. A. Bullard. "Drainage," John R. Lewis, of Piper City.

A vote of thanks was tendered Mr. T. L. Johnson, of James W. Queen & Co., Philadelphia, Pa., for assistance in the formation of the society, also for placing upon exhibition in the hall a large and elegant display of engineer's and surveyor's instruments.

The society ratified the action of the Cleveland convention, and appointed a committee to meet with them.

THE CHICAGO ART INSTITUTE.

The programme for the winter term, which opened Monday, January 4, has been issued. The regular classes are: Costumed Life, under A. J. Rupert and C. A. Corwin; Still Life, under C. A. Corwin; Nude Life, under A. J. Rupert; Antique, under J. L. Wallace and Miss C. D. Wade; Composition, under C. A. Corwin; Modelling, under J. L. Wallace; Perspective, under N. H. Carpenter; Time and Memory Sketching, under W. M. R. French; Ornamental Designing (evening), under L. J. Millet; Evening Life and Antique Classes, under J. L. Wallace and A. F. Kleiminger; Saturday Antique and Object Classes, under Miss Wade, Miss Hay and Miss Smalley.

Tuition fees are \$25 for the term of twelve weeks; evening school, \$10 for life and designing classes; \$6 for antique. Special rates for shorter terms.

The following changes in classes have been made:

The Modeling Class will meet two forenoons besides Saturdays. A class in Sketching from Memory will be formed of students of the Antique. Especial attention is called to the value of the evening designing class.

There will be a series of informal lectures on subjects connected with art practice, open to all students and their friends, probably in the antique room every Tuesday, at 4 P.M., by gentlemen interested in specialties, such as: Mr. Jos. L. Silsbee, on Color in Architecture; Mr. F. W. Gookin, on Pattern Designing; Dr. E. J. Gardiner, on Color Perception; Mr. Jos. M. Rogers, on Old Engravings; Rev. J. Colman Adams, on Artistic Expression; Mr. W. L. B. Jenney, on Elements of Architecture; Dr. R. U. Piper, on Etching and Engraving, etc.

The changes in the school rooms, incident to building, are completed for the year. The management takes this opportunity to thank the students for their patience under the interruptions of the last term.

The new antique and life rooms are as well lighted and arranged as any in the country.

A variety of improvements have been made during the vacation, and especial measures have been taken to heat the rooms thoroughly.

A class in Decorative Design has been formed under the direction of Louis J. Millet, comprising a course of instruction in practice in freehand drawing, from the flat and from ornamental casts; conventionalizing of natural forms; combination of such conventionalized forms into designs for particular purposes; practice in water-color; instruction in the sources of design and the use of reference books; suggestions from historical ornament; classification of styles, etc.

It is not too much to say that there has never been a teacher in Chicago in this special branch whose qualifications approached those of Mr. Millet. His education in the government schools of Paris, namely, the School of Decorative Arts and the School of Fine Arts, of which he is a graduate, have given him a complete training in the subject he deals with. Mr. Millet belongs to the firm of Healy & Millet, interior decorators, and his constant practice in the application of ornamentation to the different branches of his art, makes him particularly valuable as a practical instructor to those whose aim is to fill positions as draughtsmen.

The class meets Monday, Wednesday and Friday evenings, 7:30 to 9:30, beginning Monday, January 4, 1886. Students will be received at any time. The tuition fee is \$10 for the term of twelve weeks, in advance.

Students in the antique and life classes are invited to consider entering this class. Study in the different classes should be reciprocal as much as possible. Ladies, whose inclination leads them to practice decorative designing, either professionally, or as a matter of taste, will have every opportunity offered them, and all persons who are interested are invited to visit the class and meet the instructor. W. M. R. French is director, and N. H. Carpenter secretary.

BRITISH ASSOCIATION OF ARCHITECTS.

The next meeting of the British Association is to be held at Birmingham, beginning on Wednesday, September 1. It will derive more than usual interest and importance from the exhibition of local manufactures which is to be held in connection with it. The association has met three times previously in Birmingham—in 1838, 1849 and 1865. On each occasion an exhibition of local manufactures was held, and it is an interesting fact to record that to the example of the first of these are due all international and other exhibitions since conducted on so large a scale. The exhibition of 1838 was the first industrial exhibition in the country. The Prince Consort visited the one in 1849, and it suggested to him the idea of the International Exhibition of 1851. The exhibition which is to be held on the forthcoming occasion will be on a very much larger scale and of a much more popular and attractive character than has ever been attempted before. It is to be an exhibition illustrative of products and processes connected with the manufacturing industries of Birmingham and the surrounding districts within a radius of fifteen miles. The exhibition will be on a very complete scale, and will embrace engineering, hardware, heating and lighting, arms and ammunition, jewelry, glass and pottery, stationery, leather, furniture and decoration, and a miscellaneous class, including scientific and musical instruments.

ILLINOIS STATE ASSOCIATION.

At the meeting of March 4, the subject of the sanitation of buildings was discussed. The gentlemen invited, who are leading authorities on the subject in the West, were Dr. Oscar De Wolf, the city health commissioner, W. H. Genung, chief sanitary inspector, and Dr. J. E. Gilman, who discussed the subject at length. The full proceedings of this meeting will be given in the Intermediate News Edition of this month. The subject for the next meeting will be found in the following extract from the proceedings:

President Burnham: It seems to me this discussion is of great importance, and as these gentlemen, Messrs. De Wolf, Gilman and Genung, are to be with us again, it would be a good idea to get the points for any action we may be able to bring to bear, as soon as possible (if it is thought best to devote the next meeting to this subject), in suggestions for a statutory enactment. I would like to have some gentleman make the motion.

Mr. Sullivan: I move that at our next meeting Commissioner De Wolf, Mr. Genung and Dr. Gilman be invited to meet us, and at that meeting the commissioner of health will present a draft for the revision of the law covering sanitation of buildings, and that the matter be then thoroughly discussed.

Mr. Bauman: As an amendment to that motion, I move that three of our principal plumbers be also invited to attend this discussion.

The President: I hope every member will devote as much spare time to thought on this subject as possible during the next month. It is of very great importance. These gentlemen have put it in our power to assist them to initiate the proper action, and if we each of us come prepared to say something, it will supplement all that has been done. I do not doubt but every word each gentleman will have to say will help somewhat. I hope that each will think the subject over carefully and get his mind into a good, sharp, crisp condition.

The motion was carried.

Mr. Sullivan: I move that a vote of thanks be tendered to these gentlemen (Messrs. De Wolf, Gilman and Genung.) Carried.

Mr. Randolph: I ask leave to invite Mr. Bailey, of the Ruttan Manufacturing Company, to attend our next meeting.

The President: There will be no objection.

The meeting adjourned.

Correspondence.

Editors *Inland Architect*: DES MOINES, Iowa, Feb. 13, 1886.

In your report of the proceedings of the last convention of Iowa architects, held at Des Moines, published in the Intermediate Number for January, 1886, you accredit me with offering the resolution near the bottom of page 128, made in relation to the "Code for Competition." This is an error. The resolution and preamble were presented by W. F. Hackney, who also moved their adoption. *I moved to amend by striking out the third resolution*, but was voted down. Please make this correction, and oblige,

Yours truly,

C. H. LEE.

New Publications.

In the review of "A Guide to Sanitary House Inspection," by Wm. Paul Gerhard, of New York, published last month, the price quoted, \$4.25, was incorrect. The price of this admirably written and practical work is \$1.25. The other figures should stand for what the book is really worth.

THE HEATING AND VENTILATION OF PUBLIC BUILDINGS: An Essay on the Heating and Ventilation of Public Buildings, with special reference to the Senate and House of Representatives of the United States. By J. L. SMITHMEYER, architect, F. A. I. A. Published by the author.

This pamphlet of 48 pages is briefly an argument in favor of what is called the "down-draught" system of heating and ventilating the halls of congress at Washington. Mr. J. L. Smithmeyer, its author, is an architect

in Washington, who has given much attention to this particular subject, having been one of a committee of experts appointed by congress in 1880 to report upon the improvement of light and air in the senate chamber and house of representatives.

Scientific authorities have long been divided on the question of up-draught and down-draught, pulsion or exhaust, heating and ventilating. Those who wish to examine the arguments in favor of the latter, which is the less usual mode, can hardly find them more clearly, forcibly and persuasively set forth than in this essay of Mr. Smithmeyer's, and he brings to his support numerous quotations from the opinions of eminent scientists at home and abroad, although some of them, dating back thirty years or more, lose by age something of their force in the discussion of a problem, many of whose features have materially changed in that period.

THE INTERNATIONAL RECORD OF CHARITIES AND CORRECTION.

New York and London.

G. P. Putnam's Sons will begin in March the publication of a monthly journal, to be entitled *The International Record of Charities and Correction*. The *Record* will be issued in quarto form, and each number will contain sixteen pages of original and selected matter, exclusive of advertisements, printed in the best style, on book paper, suitable for binding. It will be devoted to the discussion of all questions relating to the care and treatment of the unfortunate and criminal classes, in all their varied aspects—humanitarian, economic, scientific, governmental, and practical, containing the latest accessible information, from all parts of the world, as to the steps taken for the amelioration of suffering, and the prevention of pauperism and crime, and of their consequent evils. This journal will be found of service, not only to officers and managers of public and private charitable and reformatory institutions and associations, but to all who are interested, for any reason, in the elevation of the condition of mankind. The editorial control will be in the hands of Mr. Fred. Howard Wines, for sixteen years the secretary of the Illinois board of state commissioners of public charities, and late special agent of the tenth census. The *Record* will be issued monthly, at the annual subscription price of \$1, and the price per number will be ten cents. Specimen numbers sent on receipt of five cents. G. P. Putnam's Sons, publishers. London office, 27 King William street, Strand. New York office, 27 and 29 West Twenty-third street.

EXTERIOR DECORATION: A treatise on the artistic use of colors in the ornamentation of buildings, and a series of designs illustrating the effect of different combinations of colors in connection with various styles of architecture. Published by F. W. Devoe & Company, New York; Coffin, Devoe & Company, Chicago, 1885.

Among the recent publications we are pleased to notice that of F. W. Devoe & Co., New York, on "Exterior Decoration." It is a concise treatise on the exterior painting and decoration of the modern dwelling, and a practical illustration of what this firm produces in the way of prepared paints. The correct employment or arrangement of colors to produce the most harmonious decorative effects seem to have been successfully accomplished in this work. The articles on "Art in House Painting," "The Artistic Selection and Combination of Colors," "A Chapter on Paints," and "Practical Suggestions to the Painter," are interesting to the architect, the builder, or to those who contemplate building. The book is 12 by 15, elegantly bound, and contains twenty practical illustrations, in the form of plates, of different styles of architecture, showing a tasteful employment of paints, also the effect produced by a contrast of colors under different conditions as to landscape, architecture, etc. The various shades are also shown in its pages, and from which may be selected the colors necessary to produce a rich, harmonious effect, according to the surroundings. It is by far the most extensive publication in this line ever issued, and will be found an aid to those who seek to study modern taste in the selection and application of decorating materials. Coffin, Devoe & Co., Chicago, are the general wholesale western agents of F. W. Devoe & Co., and can furnish this book upon application, by mail or otherwise, at a very moderate price.

ELEMENTARY GRAPHIC STATICS, AND THE CONSTRUCTION OF TRUSSED ROOFS: A Manual of Theory and Practice, by N. CLIFFORD RICKER, M. Arch., Professor of Architecture, University of Illinois; Fellow of American Institute of Architects, and of the Western Association of Architects. New York: William T. Comstock, 6 Astor Place, 1885. \$2.00. Sent by mail, free of postage, to any part of the world.

Graphic statics is the science of determining the strains in bridges, roof trusses and other structures by graphic methods, in place of the laborious numerical computations which have hitherto been employed. Its development, and successful application to practical questions, for which the world is indebted chiefly to Professors Culmann, of Zurich, Switzerland, and Clerk Maxwell, of England, is one of the most noteworthy contributions of the nineteenth century to applied science. The graphic methods are wonderfully comprehensive, accurate and rapid, easy of application, and they have the great advantage over numerical calculations of containing within themselves a system of checks which guard against errors in the process of solution. Prof. Ricker's book is an expansion of a series of articles on the construction of roofs, formerly contributed by him to "Building." In its present form it gives essentially the course of study on this subject at the Illinois State University, where its author is professor of architecture.

Beside the general principles of graphic statics, it particularly treats of roof construction from an architect's standpoint, and gives various tables and data of the weights of roof trusses, roofing materials, snow, etc.; also methods of computing the lengths of truss members, and of proportioning their dimensions to practical requirements. There are, beside, the usual formula for tensile, compressive and transverse strains, and useful suggestions about the construction of joints, etc. Beside the graphic solutions, it gives a good explanation of Ritter's method of moments, which is partly graphic, partly numerical, and a very useful expedient in many cases. There is a good index at the close. The book is well illustrated, and is calculated to be very serviceable, both to students and architects, from the amount of useful matter it contains. We regret to note a good many typographical errors, which, it is to be hoped, may be corrected in a later edition.

Mosaics.

ARCHITECT A. BAUER, of Bauer & Hill, will return from his European tour about May 1.

J. M. MARSTON & Co., of Boston, report a large reduction in price in hand and foot power machinery, dating from February 1.

THE Peerless Brick Company, of Philadelphia, have just issued a circular, illustrating a number of new styles of ornamental pressed brick.

THERE have been received from Architect Nath'l Tobey, Galveston, Texas, plans and elevations of a proposed residence, which show some excellent architectural features.

ARCHITECT H. R. WILSON, of 79 Dearborn street, will move his office on March 1, 1886, to the new Insurance Exchange Building, corner of La Salle and Adams streets, occupying suites 910, 911 and 912, his business having outgrown his present quarters.

A FACTORY chimney, 8 feet square at the base and 100 feet high, weighing 170 tons, was recently standing at a certain point in Bridgeport, Connecticut. It is now standing 45 feet away from that spot, having been moved bodily and placed on a new foundation.

B. D. STEVENS, the inventor of a sliding inside blind, of considerable merit, is in Chicago, looking for a location to manufacture. The blind has been strongly indorsed by Eastern architects, and should be seen by architects in search of a reliable inside blind for moderate cost houses.

C. J. WARREN, lately a leading draughtsman in the office of Burnham & Root, has established himself in business in the National Bank of Illinois building. Eugene A. Calkin, formerly with Wheelock & Clay, is also in this building. A new firm, composed of A. W. Cole and R. W. Dahlgren, formerly with L. G. Hallberg, is located in the Ashland block.

THE press dispatches recently stated that the boiler house of the Indiana Southern Hospital, for the Insane at Evansville, had collapsed at a cost of \$18,000 to the state. The boiler house is being built upon quick sand, and some fears have been entertained for its safety, but word has been received from the architect stating that the building still stands in good condition.

MR. GEO. JOSSELYN, who has for a number of years superintended the construction of the Iowa Hospital for Insane at Independence, has removed to Cedar Rapids, Iowa. He will there act in connection with Josselyn & Taylor, architects, as an advisory and superintending architect, for which his many years practical experience eminently fit him. The firm will still be composed of Harry S. Josselyn & Eugene H. Taylor with offices at Des Moines and Cedar Rapids.

THE Chicago Anderson Pressed Brick Company have offered a premium of fifty dollars to the Chicago Architectural Sketch Club for designs for brick mantels. This amount will be divided into three prizes of \$25, \$15 and \$10, for the three best designs for a hall mantel, eleven foot ceiling made from brick in the firms catalogue, with no terra-cotta, the designs to be adjudicated by three prominent architects, the money to go to the successful draftsman and the design to become the property of the pressed brick company.

THE general principles of a lock found among the ruins of the great temple of Karnak, and which was in use more than forty centuries ago, is said to have served as the foundation for most of the inventions of recent times. The locksmiths of China, we are told, had, centuries before the birth of Christ, perfected a lock out of which a sharp bamboo thorn would dart and strike the hand of any one wrongfully tampering with it. The end of this bamboo thorn was steeped in a poisonous decoction, and, should the luckless thief escape death, he would be maimed for life.

"THE STORY OF THE MURPHY VARNISHES" is the appropriate and expressive title of a neat little brochure just published by Murphy & Co., varnish makers of New York. It is artistically gotten up, the cover being stamped bronze of antique design, representing a Roman chariot, embossed with the initials of the firm. The work is handsomely illustrated, portraying the various stages of the manufacture of their varnishes and the works in Newark, N. J., and Cleveland, Ohio. It also illustrates the different offices of the company in New York, St. Louis and Chicago.

THE HENRY DIBBLEE COMPANY is now the name of the former Henry Dibblee & Co. The company is composed of Henry Dibblee, president; Anson S. Hopkins, vice-president and general manager, and E. D. Redington, secretary and treasurer. The new company increases materially the strength and enterprise of the old, and their friends will be glad to know that they are arranging to improve upon what has seemed already perfect, their variety and assortment of fine mantels, fireplaces and tile work. This will include a radical change and improvement of the show-rooms, as the entire floor will be devoted to this purpose and handsomely appointed.

ARCHITECTS generally are specifying the quality of tin to be used in roofs constructed under their supervision, but it is not uncommon that plates of an inferior grade than that specified are used entirely or mixed with those specified made by manufacturers known to be thoroughly reliable. Wishing to perform their full duty to their clients they must either become experts in tinplate manufacture or they must specify plates made by those upon whom they can rely and who brand and guarantee every plate, so that the roof itself is a standing warranty of its own stability. This stamping is now done by the most reputable of the manufacturers, so that each plate indicates the brand used beyond any chance of fraud or mistake.

RUMORS in regard to changes in the works of the Union Foundry and Pullman Car-wheel Works have been floating in building circles, the alleged change being a separation of the architectural iron department and its removal to a separate location, etc. On investigation these allegations are found to be perfectly groundless, the only change being in a recent transfer of stock, but in no way effecting the building public who are interested in the prompt filling of their contracts for iron work. Thus, their large plant, gives ample facilities for, and, in the language of a

prominent officer of the company, "the Union Foundry's flag still waves," the only change being that of progression, which is always taking place in the supplying of new forms of architectural iron work in response to the demand of the architect.

THE best asphalt for floors is now brought from Seyssel and Val de Travers, and is generally used for floors in public buildings, maltheuses, etc., and all the minor places where a hard, smooth and permanent floor is required, and has been widely used for years in Europe. This rock asphalt is found in natural deposits. It contains no coal tar or artificial products, and within a few hours after laying is set and ready for service, making one of the most durable of floors and is invaluable for fireproof buildings. This also is true in regard to its use in dwelling-house cellars, in moist ground, as it is water tight and non-absorbent. It is impervious to sewer gas and as it is odorless can be laid over cement, concrete, brick or wood, and in one sheet from a sanitary standpoint is incomparable. The merits of this material is indorsed by no less an authority than Gen. Q. A. Gilmore, copied from "Johnson's Cyclopaedia," as follows: "It must be conceded that nothing has yet been discovered which can replace with entire satisfaction the bituminous limestones of Seyssel and Val de Travers. In the natural asphaltic rock the calcareous matter is so intimately and impalpably combined with the bitumen, resists so thoroughly the action of air and water and even muriatic acid, is so entirely free from moisture, properties due perhaps to the vast pressure and intense heat under which the ingredients have been incorporated by nature, that we are forced to attribute the excellence of this material to the existence of certain natural conditions which the most skillful artificial methods fail to reproduce." This asphalt is imported by Messrs. Simpson Bros., of New York and Chicago, who have laid floors of this material throughout the country, and have in their employ foreign experts of large experience, thus insuring a product of exceptional quality. The members of the firm are G. F. & James Simpson.

ENCASED in every human frame is a wonderful machine, or force pump, which drives the blood through the arteries to all parts of the body, from whence it is returned to the machine through the veins. This machine is the heart, and, together with the arteries, veins and capillaries, constitutes the medium through which circulation is maintained in the system. This wonderful human arrangement is of no more vital importance to man than are the railroads to the prosperity of the country—they are the circulating mediums of the nation's progress. Of them, owing to its geographical position, great length of lines, the large number of important cities it reaches, and the productive territory which it traverses, the Burlington route, C. B. & Q. R. R., may, in comparison with the physiological structure mentioned, be called the "Iron Heart." Like its prototype in the flesh, it receives and emits a ceaseless flow of material for the maintenance of vitality. To and from Chicago, Peoria, or St. Louis on the east, and Council Bluffs, Omaha, St. Joseph, Atchison, Kansas City and Denver on the west, it circulates all classes of travel between the prominent cities of the East, and intermediate points, on the one hand, and the City of Mexico, Portland, San Francisco and all Pacific Coast points on the other. From many of its numerous terminals it is also a strong factor in the maintenance of travel between prominent points north and south, thus literally maintaining a circulation of commerce in all directions. Unlike many human hearts, the condition of this one of iron is always strong and healthy, as the Burlington route maintains elegant equipment, perfect roadbeds, steel tracks, and, at important points, interlocking switches, besides adopting every modern device that will add to the comfort or safety of its patrons. For tickets, rates, or general information regarding the Burlington route, call on any railroad ticket agent in the United States or Canada, or address Percival Lowell, general passenger agent, C. B. & Q. R. R., Chicago, Ill.

Inventive Genius in Building.

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

- 333,565. Blind, Shutter or Screen. B. D. Stevens, Burlington, Vt.
- 333,568. Door Spring and Check. J. S. Stevens and C. G. Major, Battersea, England.
- 333,820. Heating Device for Rooms. W. H. Bowman, Boston, Mass.
- 333,922. Houses, Construction of. E. Totman, Hinsdale, Ill.
- 333,603. Roofing-ridge and Valley. L. D. Courtright, Chicago, Ill.
- 333,654. Sash and Frame, Window. W. E. Michael, Reading, Pa.
- 333,775. Sash-cord Fastener. A. Oberndorfer, Norfolk, Va.
- 334,401. Building Material, Form of. J. S. Armstrong, New Brunswick, Ca.
- 334,203. Door-attachment, Sliding. W. Spear, Aurora, Ill.
- 334,344. Door-hanger. C. W. Bullard, Chicago, Ill.
- 334,160. Eaves-trough. W. C. Berger, Canton, Ohio.
- 334,088. Fire-place. E. R. Procter, Washington Court House, Ohio.
- 334,694. Buildings, Construction of. T. DeLemos and A. W. Cordes, New York.
- 334,636. Door-securer. D. Bromley, Carrollton, Ky.
- 334,611. Flooring and Ceiling Clamp. E. A. Reed, Olive Springs, Tenn.
- 334,603. Lathing. C. E. Merrifield, Indianapolis, Ind.
- 334,524. Roofing, Metal. F. C. Tegethoff, Cleveland, Ohio.
- 334,463. Weather-strip. C. J. W. Platt, Philadelphia, Pa.
- 334,093. Blind-slat Adjuster. P. Rundquist, New York, N. Y.
- 334,763. Building and System for Laying Electric Conductors therein. C. N. Fay, Chicago, Ill.
- 334,772. Building-bracket. A. D. Hart, Elmira, N. Y.
- 334,996. Ceilings, Manufacturing Flanged. S. Sullivan, Upper Newton Falls, Mass.
- 334,975. Ceiling, Fireproof. C. Toope, London, Eng.
- 334,834. Door-closer. D. T. Winter, Peabody, Mass.
- 334,831. Eaves-trough Support. W. R. Wilcox, Nashua, N. H.
- 335,098. Weather-strip. A. F. Van Dolsen, Dennison, Mo.
- 335,362. Chimney-Cap and Ventilator. W. J. & C. Kayser, Chicago, Ill.
- 336,047. Buildings, Fireproof. R. Gustavino, New York, N. Y.
- 335,575. Door Check, Pneumatic. G. Geer, Peterborough, N. H.
- 335,835. House, Summer or Bath. F. I. Palmer, New York, N. Y.
- 335,829. House Ventilation. W. Moore & J. B. Carter, Kokomo, Ind.
- 335,939. Weather Strip. T. Law, Manhattan, Kan.
- 336,465. Building Wall. W. P. Andrews, Dana, Ind.
- 336,309. Door Spring. D. W. Frost, Keokuk, Iowa.
- 336,375. Latch, Door. T. C. H. Bayrhafer, Rising City, Neb.
- 336,517. Lathing. H. H. Fulton, Indianapolis, Ind.
- 336,098. Roofing, Metal. J. H. Eller, Canton, Ohio.
- 336,864. Bell, Door. W. A. Milligan, Wheeling, W. Va.
- 10,692. Blind, Window. A. H. Hill, Oskaloosa, Iowa.
- 336,707. Chimney-Cap. T. Edwards, Amherst, Nova Scotia, Canada.
- 336,638. Latch, Sliding Door. J. T. Gordon & J. H. Hamilton, Concord, N. H.

PUBLISHERS' DEPARTMENT.

Elevators in Minnesota.

THE Commercial Bank office building of Duluth, Minnesota, which is illustrated in this number, is a forerunner of several large office buildings to be erected in the West and Northwest. The owners, taking advantage of the experience acquired in office building by Architect W. L. B. Jenney, of Chicago, have adopted his plans for the construction of the building. The contracts that have been awarded show that the work is intended to be first-class, and that the latest improvements have been selected. One of the most important adjuncts to office building is the elevator system, without which the higher stories would be comparatively useless; in fact, it is only by their use that the owners of high office buildings can advantageously rent their upper floors. The selection of the elevators for the "Commercial" is another instance of the popularity enjoyed by the Hale elevators; their reputation for speed, safety and smooth running qualities has long made them famous in all our large cities, and it is with pride that the Chicago citizen calls the visitors' attention to the Home Insurance office building, where this system of elevators is fully demonstrated. It is safe to say that the majority of the new large buildings lately constructed in Chicago are furnished with this elevator, and it certainly must be a source of gratification to the firm that the merits of their elevators are so well appreciated in the West and Northwest that when any new structure requiring elevator service is projected, it can safely be surmised that the Hale & Co.'s will be selected.

Synopsis of Building News.

Alma, Mich.—Architect F. W. Hollister of Saginaw, Mich., reports: For Alma Union School, two-story, ten-room, brick and stone building, 96 by 94 feet, slate roof; cost \$20,000; under way; Chas. Tiedke and Wm. H. Smith, builders. For Central Michigan Normal School, three-story, brick-vener college building, 100 by 71 feet; cost \$25,000; and three-story, brick veneer dormitory building, 34 by 96 feet, slate roof; cost \$15,000; contracts being let.

Akron, Ohio.—Architects Weary & Kramer report the following as the principal work of their firm during 1885: Stone court house for Carroll county, Ohio; cost \$100,000; not yet completed. Stone court house for Hancock county, Ohio; cost \$140,000; just commenced. Brick jail and sheriff's residence for Ashland county, Ohio; just commenced; cost \$26,000. Stone recitation hall and observatory at Oberlin, Ohio; not completed; cost \$75,000. Brick jail and sheriff's residence for Carroll county; cost \$15,000; completed. Pressed brick high school building at Canton, Ohio; cost \$100,000; under way. Hotel Hartford, brick, at Canton, Ohio, rebuilding of old St. Cloud; cost \$35,000. Pressed brick and stone business block for Hon. G. W. Course, at Akron; cost \$45,000. Brick business building for John Rampanelli at Akron; cost \$10,000. Brick business building for W. G. Haltman at Ashland, Ohio; cost \$8,000. Brick M. E. church at Doylestown, Ohio; cost \$12,000. Frame Presbyterian church at Rittman, Ohio; cost \$8,000. Columbia rink, frame, for Howland Bros., at Akron; cost \$16,000. Frame summer hotel, pavilion, etc., at Chippewa Lake, Ohio; cost \$12,000. Brick factory building for Akron Twine and Cordage Co.; cost \$20,000. Also seven frame dwellings for different parties; cost from \$2,000 to \$7,000 each. Barn and offices for Brewster Coal Co., at Akron; cost \$10,000. Observatory for Buchtel College, Akron. Business buildings for S. A. Curand, at Massillon, and C. W. Werner, at Canton, Ohio. Besides a number of smaller jobs. Prospects for the coming year, while not brilliant are not discouraging.

Battle Creek, Mich.—Building has been very dull though the past winter; but the outlook for coming season is better than usual.

Architect J. H. Hawkins reports several jobs, the most important of which is a two-story frame dwelling, 46 by 64 feet, for Hon. V. P. Collier; cost \$4,000; under way; George Carl, builder.

Blue Earth City, Minn.—Architects C. G. Maybury & Son, of Winona, Minn., report: For W. E. C. Ross, two-story frame dwelling, 32 by 44 feet; cost \$20,000; projected.

Buffalo, N. Y.—Architect R. A. Waite reports: For Sherman S. Jewett & Co. five-story brick stove emporium, with iron front, to cost \$125,000; the contractor for the mason-work is Charles Berrick, and for the ironwork, H. C. Harrower; the carpenter-work, roofing, etc., will be done by the day.

Architect George J. Metzger reports: For John Wickser, two-story frame residence, to cost \$4,500; Stephen Reimann, contractor. For T. K. Kraft, two-story frame residence, to cost \$5,000; Stephen Reimann, contractor. For Misses Burtiss, two-story frame residence, to cost \$5,000; Stephen Reimann, contractor. For Louis Goetz, alterations in store on Pearl, near Eagle street, to cost \$6,000; Stephen Reimann, contractor. Ground has been broken for a five-story brick building to be erected on Seneca street, it will be 80 by 200 feet; when finished it will be occupied as a storage warehouse and as stables for the Buffalo Carting Company and the Buffalo Stage Company.

Architect F. W. Caulkins reports: For Louis Bergtold, brick stores and flats, to cost \$5,000; John L. Frank, contractor.

Architect F. W. Humble reports: For the Glenny estate, alterations in stores, 204 and 206 Main street, to cost \$15,000; Henry Schaefer, contractor.

George Atkinson reports: For George B. Hayes, iron foundry, to cost \$10,000, at East Buffalo. For Oscar Meyer, two-story frame residence, to cost \$4,000, on Hodge avenue.

Builder Stephen Reimann reports that he is building two frame houses on Garden street for William Brewster, to cost \$4,500 each. Frame residence for William Watson to cost \$2,500; also one frame house for Joseph Becker, to cost \$2,500.

Architect Louis Saenger reports: For Michael Bankritz, frame store, to cost \$4,500; Stephen Reimann, contractor.

Cedar Rapids, Iowa.—Architects Joselyn & Taylor report: For John Thomas, residence, 48 by 56 feet; cost \$10,000; no contracts let.

Chattanooga, Tenn.—There is at present a large amount of work on hand which cannot be done on account of the weather. Prospects for spring season are very good, and it is thought the buildings erected this year will be of a much better class than previously.

Architect A. Delisle reports: For C. P. Robertson, two-story frame dwelling, 52 by 60 feet, handsomely finished, Welter's patent shingle roof; cost \$4,000; under way; H. C. Jackson, builder. For M. C. Chambers, two-story brick store and dwelling, 25 by 70 feet, stone trimmings; cost \$3,800; under way; H. C. Jackson, builder. For H. R. Banks, two-story frame dwelling, 30 by 60 feet; cost about \$3,000; projected. For Fred Sieker, two-story frame dwelling, 16 by 25 feet; cost about \$2,000; projected. For C. B. Isbert, two-story frame dwelling; cost \$800.

Chicago.—The spring building has not yet commenced, except on the boards in the architects' offices, but here the past month has been full of activity. The demand for suburban work is great, one real estate firm contemplating the erection of one hundred houses in a near suburb the coming season.

Rents will not probably advance, and there is even a tendency toward reduction. Flats have become unpopular, and will probably be rented at a reduced figure. This will probably hold true except in localities where there is competition among tenants. The foundations of the "Central" (on the old rookery lot) are progressing. They cover an area of 177 feet 8 inches on La Salle street, and 168 feet 6 inches on Adams street. The foundation of the Phoenix Insurance building has been completed, and the covering removed, showing some superbly built brick piers.

Architect J. J. Egan reports: Plans for two three-story and basement dwellings for John O'Connell, on La Salle avenue, brick, brownstone and terra-cotta; and for the Misses O'Brien, a dwelling on Calumet avenue, near Thirty-first street, to cost \$7,000.

An addition to St. John's Hospital, at Springfield, Ill., three stories, 60 by 100 feet, including chapel, brick and stone, steam heat, stained glass, to cost \$20,000. For Rev. Father Tierney, a brick and stone church, at Henderson, Ky., for 650 sittings, to cost \$25,000.

Architects Rae & Wheelock report: For Rev. P. S. Henson, at 3249 South Park avenue, a two-story, cellar and attic residence, of pressed brick, stone, terra-cotta and red slate, hardwood finish, steam heat, 27 by 70 feet; cost \$15,000, including brick stable. For H. F. Googins, at 3,247 South Park avenue, a two-story, cellar and attic residence; cost \$7,500. For F. J. Shea, at South Chicago, a block of four flats; cost \$12,000. For T. W. Cole, on Calumet avenue near Thirty-third street, a two-story and cellar residence, front of Kasota pink colored stone, hardwood finish, 17 by 68 feet; cost \$6,000. For C. W. Foster, at Roger's Park, a frame residence, 30 by 57 feet; cost \$4,000. For A. Gordon Jones, a two-story and cellar residence, front of Kasota pink-colored stone, hardwood finish, 17 by 68 feet; cost \$6,000. For James Wallace, Jr., a frame cottage at Ravenswood, 28 by 50 feet; cost \$4,000. For J. M. Kean, at Roger's Park, a frame Queen Anne cottage, two stories and attic, rock-face basement, 32 by 52 feet; cost \$4,000. All of the above are contracted and under way. Plans on the boards for a number of costly buildings, some of which will be ready for bids very soon.

Architect Geo. Beaumont reports: For Jno. Matthews, on Hall street, Lake View, an apartment building, two stories and basement, stone basement, frame above, 40 by 44 feet; cost \$5,000. Taking bids. For A. Reigelman, on Groveland Park avenue, residence, two stories and basement, stone front, 30 by 55 feet; cost \$5,500. Contracts not let. For Samuel Cohn, on Thirty-ninth street near Cottage Grove avenue, two-story and basement store and flat building, brick, 22 by 60 feet; cost \$4,000. Contractors, J. M. Darling, mason, and F. Blair, carpenter. For John Pedgrift, on the corner of Racine avenue and Diversey street, a three-story brick store and apartment building, with Masonic hall, reception and banquet rooms on third floor, 46 by 86 feet; cost \$16,000; under way. For J. E. Church, on Lake avenue near Forty-second street, a brick residence, two stories and basement, 22 by 58 feet; cost \$5,000; under way.

Architect L. G. Quackenboss reports: L. C. Riggs, three two-story and basement dwellings at 866, 868 and 870 West Monroe street, Indiana, pressed brick and buff Bedford stone, hardwood finish and all modern improvements, 50 by 60 feet; cost \$10,000; under way; Wm. Egebrecht, contractor. Also for the same owner, two two-story and basement dwellings at 143 and Leavitt street, Indiana pressed brick and buff Bedford stone fronts, 40 by 40 feet; cost \$7,000; under way.

Architect J. J. Flanders reports: For Mrs. Mary E. Sands, a block of dwellings at 573 and 575 La Salle avenue, and a block of the same character at 511 and 513 West Jackson street, at a cost of \$15,000 each; both under way. For Board of Education, three-story and basement brick and stone school house, 110 by 116 feet on Laflin and York streets; cost \$50,000.

Architects Burling & Whitehouse report: For a Lodge of I.O.O.F., a five-story building on Chicago avenue, for the use of the lodge and business purposes, rock-faced stone and brick, with copper bay and tower features, 27 by 90 feet; cost \$25,000; contracts not let. For Edwin B. Sheldon, block of three dwellings, on the corner of Ontario and St. Clair streets, four-stories and basement, Dutch tile with stone trimmings, early English style, 50 by 76 feet; cost \$32,000; contracts being signed. For Edwin Walker, block of five dwellings on Wabash avenue and Thirty-third street, three-stories and basement, brick and stone; cost \$30,000; contracts not let. For S. A. Brown, residence on Michigan avenue and Twenty-sixth street, colonial in style, three-stories and basement, 56 by 76 feet; cost \$60,000; contracts not let. For Edwin H. Sheldon, store building on the corner of Quincy street and Fifth avenue, seven-stories, rock-faced stone, iron and brick, 40 by 100 feet; cost \$80,000; contracts not let. For Edwin Walker, alteration of residence on Michigan avenue, at cost of \$8,000. For John de Koven, residence on the corner of Elm street and Dearborn avenue, three-stories and basement, of New York blue stone, 16 by 76 feet; cost \$18,000; contracts not let. For Miss Anna Wolf, block of three dwellings on Cottage Grove avenue and Thirty-third street, rock-faced stone; cost \$20,000; contractors, Fox & Hines, masons, F. C. Heath, carpenter. For Julius Wadsworth, of New York, store house on Canal street, brick and stone, 30 by 60 feet; cost \$16,000; contracts not let. For R. J. O. Hunter, residence at Kenwood, stone foundation, frame and shingle above, suburban villa style; cost \$7,500. Alteration of Dickey building, also building on corner of Michigan and Kinzie streets. Plans for church and parsonage at Omaha for the Episcopal Bishop of Nebraska, stone, natural face, to cost \$25,000. Drawings being made, also for a six-story building on Michigan street near State, to cost about \$30,000. Contracts being awarded for the Grant Memorial.

Architect E. R. Krause, reports: For R. H. Piratzky, on Blue Island avenue near Fourteenth street, store and flats building, three-stories, basement and attic, Anderson pressed brick front, terra-cotta trimmings, slate mansard roof, 55 by 140 feet; cost \$25,000; contracts not let.

Architects McAfee & Lively report plans on the boards for a double dwelling, 36 by 52 feet, for Mr. Nelson Monroe, to be located 3024 and 3026 Calumet avenue, to cost \$7,500. Milwaukee pressed brick, buff terra-cotta and buff-colored stone; large plate front windows, with stained glass transoms; oak finish and open fireplaces. Also two-story flat building, 21 by 52 feet, to cost \$3,500; Anderson pressed brick, red terra-cotta, galvanized iron, cornice and pine finish, wood mantels; to be built on Twelfth street near Robey; owner Mr. J. Richards, 320 Blue Island avenue. Also a \$3,000 building for store and flat for Max Strauss, to be built on Desplaines street, near Harrison.

Architect J. Spier, at a meeting of the board of education of District No. 2, town 38, range 14, Lake and Hyde Park, held Wednesday last, was selected as architect to offer plans for a new school house to be erected. It is expected that the new building will cost between \$80,000 and \$100,000.

Cincinnati, Ohio.—Architect De Jardins & Haygood report: Outlook for spring building was never better. Few buildings have as yet been submitted to the contractors, but there is plenty of work in the hands of the architects. Plans for J. F. Anderson for three and one-half-story brick building, containing twelve flats, 90 by 80 feet; cost \$25,000. For C. W. Breneman, a nine-room frame house, 40 by 60 feet; cost \$6,000. For J. H. Law, a twelve-room brick house, 50 by 70 feet; cost \$13,000. For Benj. W. Putnam, a twelve-room brick and stone building, 40 by 70 feet; cost \$15,000. For J. F. Anderson a fine stone residence, 50 by 75 feet; cost \$35,000. For Wilson Coal Company, at Washington, Indiana, a brick store building, 51 by 100 feet; cost \$18,000. For Collegiate Institute at Fairfield, Illinois, brick college building, 50 by 70 feet; cost \$9,000. For W. W. Watts, at Richmond, Kentucky, a fine brick and stone residence, 70 by 90 feet; cost \$30,000. For Aug. Bepler, row of brick houses, 90 by 50 feet; cost \$12,000. For A. Hoffman, at Mt. Sterling, Kentucky, a frame dwelling 40 by 60 feet; cost \$5,000.

Colorado Springs, Colo.—Real estate is advancing rapidly. Two railroads center here and good prospect for two more this year. There are already more buildings projected for the coming season than have been erected in the past three years. On the whole it seems fair to predict a boom, and that Colorado Springs will be one of the liveliest cities of its size in this section during the spring and summer season. Among the buildings now under way, for which the architect's name has not been obtained, are: Mr. J. J. Haggerman's two-story stone residence, 50 by 70 feet; cost \$50,000; Whipple & Roby, contractors. Geo. Aux's stone residence, to cost \$3,000; S. Ed. Sissons, builder. A dairy barn for Wilcox & Co., 50 by 200 feet; cost \$3,000; Ed. Brusol, builder. Colonel DeForrest contemplates the erection of a three-story frame residence, to cost \$20,000. W. Pastoris will build a two-story frame dwelling, to cost \$3,000. G. Coissig will erect a two-story frame dwelling, 25 by 40 feet; cost \$4,500.

Architect W. F. Ellis reports: A two-story brick business block, 50 by 120 feet, tin roof; cost \$10,000; projected. A two-story stone and brick business block, 50 by 80 feet; cost \$6,500; projected. For Mrs. S. B. Pickett, two-story frame dwelling, 25 by 40 feet; cost \$3,000; under way; Jos. Dozier, builder. A two-story frame dwelling, 30 by 40 feet; cost \$6,000; projected. Also a two-story frame dwelling, 30 by 30 feet; cost \$3,000; projected.

Carthage, Ill.—Outlook fair.

Architect Geo. W. Payne reports a number of small jobs, ranging from \$600 to \$2,500. Also, that a roller mill is contemplated, and he has submitted drawings for an opera house, 50 by 130 feet; cost, \$12,000.

Covington, Ky.—It is rather early in the season for business, but the indications are favorable.

Architect E. H. Ashley reports: For E. J. Hickey, two-and-one-half-story brick residence, 30 by 60 feet; freestone trimmings; slate roof; cost \$5,500; under way. For Daniel McNamara, two-and-one-half-story brick residence, 34 by 37 feet; freestone trimmings; slate roof; cost, \$7,200; under way. For John A. Simpson, block of four three-story houses, 70 by 55 feet, pressed brick front, stone trimmings, slate roof; cost, \$12,000; just completed; James T. Thomas, builder. For H. & H. Loewenstein, three-story brick store and dwelling, 22 by 68 feet, tin roof; cost, \$4,000; under way; Craig & Loder, builders. For James Hasmuth, three-story brick building, 18 by 63 feet; tin roof; cost, \$3,500; under way; T. J. Keiley, builder. Also, some smaller work.

Clark, D. T.—Architects C. G. Maybury & Son, of Winona, Minn., report: For Wm. M. Reed, two-story frame dwelling, 30 by 42 feet; cost \$2,000; projected.

Creighton, Neb.—Architect W. K. Ball, of Creston, Iowa, reports: For Knox County Bank, two-story brick and stone building, 25 by 80 feet, metal roof; cost \$12,000; making plans.

Creston, Ia.—The building outlook is not flattering.

Architect W. K. Ball reports: For Odd-Fellows Society, two-story and basement hall building, 25 by 100 feet, brick, with stone trimmings; cost \$7,000; plans finished; contract not let. For C. J. Colby, two-story frame addition to residence, 28 by 46 feet; cost \$4,200; plans finished; contract not let.

Delta, Mich.—Architect I. Gillett, of Lansing, Mich., reports: For Oscar Hart, two-story brick dwelling, 57 by 36 feet; cost \$3,500; contract just let.

Dodge City, Kan.—Architect J. B. Legg, of St. Louis, Missouri, reports: Completing plans for a three-story brick hotel, 39 by 125 feet, seventy-two rooms, for York, Parker, Draper Mercantile Co.; cost about \$20,000.

East Saginaw, Mich.—Architect F. W. Hollister, of Saginaw, Mich., reports: For city, Emerson school building, 109 by 99 feet, in Sixth Ward, two-story, ten-room brick, slate roof; cost \$18,000; contract not let. For Clarence Hill, two-story Queen Anne residence, 40 by 70 feet, plain and ornamental brick and redwood shingles; cost \$6,000; contract not let. For N. Nathan, two-story Queen Anne residence, 44 by 78 feet, very ornamental, brick, and redwood shingles; cost \$8,000; under way; Michael Winkler, builder. For Stoltz & Son, two two-story stores, 44 by 100 feet, brick and stone; cost \$12,000; under way; Michael Winkler, builder.

Architect E. K. Prall reports: For G. F. Cross, two-story and basement stone building, 65 by 90 feet, buff Amherst cutstone trimmings; cost \$11,080; under way; Jerry Fisher, builder.

Fayette, Mo.—Architect M. Fred Bell, of Fulton, Mo., reports: For R. P. Williams, ten-room frame dwelling; cost \$9,000; under way; B. P. Wiggs, builder. For M. E. Boyd, eight-room brick residence; cost \$6,000; projected. For E. Overall, seven-room Queen Anne dwelling; cost \$5,000; projected.

Fulton, Mo.—Outlook for building is not as good as last year.

Architect M. Fred Bell reports: The contract for the erection and completion of the Missouri State Lunatic Asylum No. 3, at Nevada, Mo., was awarded to Theo. Lacroff of Fulton; amount \$166,400; the building will have a frontage of 546 feet, center building, five-stories high, three detached wings three-stories high, connected by fireproof corridors; the structure will be built of brick with stone trimmings, galvanized iron cornices, slate roof; contracts have been awarded for most of the work and it will be commenced at once, building is to be completed in eighteen months. Besides the above Mr. Bell reports considerable work in various parts of the state, which will be found elsewhere.

Gainesville, Ga.—The outlook for building is better than at any time in the past two years.

Architect T. P. Hudson reports: For H. H. Huggins, two-story brick store building 45 1/2 by 88 1/2 feet; cost about \$4,500; projected. Also smaller work, ranging from \$1,200 to \$2,500.

Grand Rapids, Mich.—Architect F. W. Hollister, of Saginaw, Mich., reports: For Michigan Soldiers Home, three-story brick and stone building, 258 by 120 feet, capacity 500 persons, slate roof; cost \$100,000; under way; Chas. Tiedke, builder.

Hannibal, Mo.—Architects Coddington & Hogg, of Kansas City, report: For James Hayward, frame dwelling, 34 by 38 feet, hardwood finish; cost \$3,500; taking figures.

La Crosse, Wis.—Architects C. G. Maybury & Son of Winona, Minn., report: For J. Stineman, three-story brick store building, 34 by 80 feet; cost \$8,000; projected.

Lansing, Mich.—Building outlook for Lansing is good, no less than ten stores are projected for erection upon the main street, the coming summer.

Architect I. Gillett reports: For Charles Stevens, two-story dwelling, 44 by 36 feet, to be built of artificial stone and brick; cost \$4,000.

Lincoln, Ill.—Architect and engineer F. Wm. Raeder, of St. Louis, Mo., reports: For Lincoln Water Company, modified gravity pumping system; two one-million gallon duplex steam pumps; water tower of steel, 16 feet diameter, 100 feet high; cast-iron mains to the extent of five miles distribution; pumping station of brick and tiling combined; complete dwelling for engineer's family; also pumps and boiler house; materials are now on the road to Lincoln; cost will not be known correctly until work is completed. F. Wm. Raeder, of St. Louis, engineer; Hinds, Moffatt & Co., of Watertown, N. Y., contractors.

Macon City, Mo.—Architects Coddington & Hogg, of Kansas City, are making plans for frame residence, for J. M. Saurnett; cost \$2,800.

Marshalltown, Iowa.—Architect F. M. Ellis reports: For W. A. Wass, a two-story brick and stone residence, redwood roof, 34 by 46 feet; cost \$3,500; foundations in. For Attorney Smith, remodeling two-story frame residence, 31 by 43 feet, at cost of \$2,000.

Architect J. G. Weatherby reports: Plans for Mrs. J. E. Hazen for frame cottage, 32 by 44 feet; cost \$2,000; contract not let. For R. E. Sears, armory for Co. D., 1st regt. I. N. G., two stories, brick, 50 by 100 feet; cost \$7,000; contract not let.

Mexico, Mo.—Architect M. Fred Bell, of Fulton, Mo., reports: For Banker H. H. Ricketts, eleven-room frame residence; cost, \$7,000; under way; H. D. Hunter, builder.

Nevada, Mo.—Architect M. Fred Bell, of Fulton, Mo., reports: Addition to Cotley College; cost \$5,000; projected. For W. J. Dyer, six-room Queen Anne dwelling; cost, \$3,500; under way.

New Hampton, Iowa.—Architects S. Brown & Son report: For John Kress, a two-story and basement brick hotel, 40 by 50 feet; cost \$3,000. For Catholic church, addition 35 by 40 feet and bell tower, at cost of \$1,500. Many small dwellings. For the Congregational Society, a church building, 38 by 58 feet, Queen Anne style, after plans by Architect A. M. Ratcliff, of St. Paul, to cost \$3,500; Brown & Son superintending. Prospect good for next season.

Ottumwa, Iowa.—Architect Edward Clark reports: For Nelson Glatfelter, at Birmingham, Iowa, a two-story frame residence, shingle roof, 30 by 50 feet; cost \$2,400; under way. For W. G. Crow, at Eldon, Iowa, a two-story and basement store and office building, brick, trimmed with white Bedford cutstone and galvanized iron, gravel roof, stone foundation, 24 by 80 feet; cost \$3,200; under way.

Paris, Mo.—Architects Coddington & Hogg, of Kansas City, report: For T. L. Pitts, frame cottage, 38 by 53 feet; cost, \$3,500; plans finished.

Parkville, Mo.—Architects Coddington & Hogg, of Kansas City, report: For Park College, two-story chapel, 72 by 72 feet: first story rough range work, second story frame; cost, \$10,000; under way.

Richmond, Ind.—Building business is rather quiet for this time of the year. **Architect John A. Hasecoeter** reports three two-story dwellings, ranging from \$1,200 to \$1,600 each.

Saginaw, Mich.—Business is fair; outlook favorable. There are good prospects for a \$200,000 government building, and a \$100,000 library building at East Saginaw.

Architect F. W. Hollister reports: For city of Saginaw, Sixth Ward, school; eight-room brick veneer building, 86 by 84 feet, slate roof; cost, \$14,000; under way; Schwartz & Ruff, builders. For same, Second Ward school, two-story brick veneer building, 84 by 96 feet, eight rooms; cost, \$15,000; contract not let yet. For Arthur Hill, two-story Queen Anne residence, 71 by 92 feet, brick and stone, ornamental slate and redwood shingle roof; cost, \$20,000; under way; Schwartz & Ruff, builders. For Mrs. James Hay, three-story modern residence, 55 by 84 feet, brick and stone, slate roof; cost, \$18,000; contract not let. For J. E. Vincent, two-story Queen Anne residence, 40 by 70 feet, stone foundation, redwood shingles, ornamental; cost, \$5,000; under way; Morley & Clark, builders. For Kehs Bros., two two-story Queen Anne dwellings, 30 by 58 feet; both cost \$6,000. For Christ Hessler two-story brick store building, 60 by 80 feet; cost, \$8,000; contract not let. For Arthur Barnard, two-story brick block of six stores, 132 by 100 feet; cost, \$12,000; under way; work done by the day.

San Antonio, Texas.—The federal government is erecting officers' quarters and barracks. Brickwork on same is about completed. First National Bank, hospital, and some smaller work is in progress. Has been very dull here up to November, 1885, but improved somewhat since then. A steady business for the present and immediate future may be expected.

Architects Wahrenberger & Beckmann report: For city of San Antonio and county of Bexar Texas, city and county, joint hospital, 182 by 127 feet, two-stories; outside walls of local hard limestone, inside walls Rio Grande brick, administration building, with two L for ward buildings, capacity, 80 patients; cost \$32,720; under way; Niggli & Witte, contractors. For John A. Green, two-story frame dwelling, 40 by 50 feet; cost \$5,500; just commenced; Charles Frey, builder. For Geo. Koerner, two-story brick residence, 45 by 50 feet; cost \$6,500; contract just let; Adam Fisher, builder. For C. P. Matlack, city engineer, one-story dwelling, 50 by 64 feet, soft limestone front; cost \$3,500; walls nearly up; Pauly & Diemann, builders. For St. Johns Lutheran congregation, brick church building, 43 by 80 feet; cost \$7,750; contract awarded February 20, to Niggli & Witte, builders. For Harnish & Baer, addition of two-stories and new front to store building, 25 by 55 feet; cost \$4,600; contract awarded February 20, to Neumann & Lindahl, builders. For Nic. Teugg, two-story stone store building, 33 by 130 feet; cost \$12,217; contract let February 20, to G. W. Konkle, builder. These architects also report: For state of Coahuila, Mexico (to be built in the city of Taltillo), theater building 80 by 141 feet, framed and covered with corrugated iron and tin roof; it will contain parquet, parterre circle and dress circle; cost \$37,500; frame is up, John Waite, contractor. Also a one-story brick store building, 35 by 60 feet; cost about \$2,000.

Terre Haute, Ind.—It is thought that no building of importance will be done here this season.

Architect W. H. Floyd reports: For A. Meyer, brick residence; cost \$8,000; D. Herzell, builder. For L. Hunel, frame residence; cost \$4,000; contract not let.

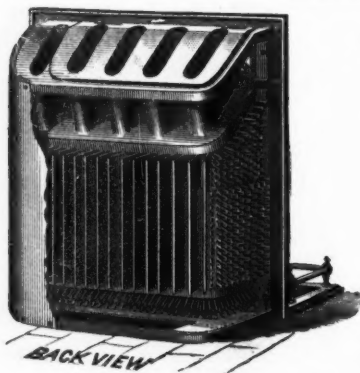
Architect Vridagh: For the city, high school building; cost \$40,000; J. Robinson, contractor.

Traverse City, Michigan.—Architect J. W. Hilton reports: For J. Fawle, Jr., a one-and-a-half story frame cottage, 26 by 32 feet; Samuel Wood, Jr., contractor. For Judge Hatch, a \$1,200 improvement. Additions to Congregational church for Sunday-school rooms, at cost of \$1,800.

Valley Falls, Kan.—Architect H. M. Hadley, of Topeka, Kan., reports: For M. P. Hilger, two-story and basement stone and brick hotel building, 34 by 90 feet, tin roof, galvanized iron cornice; cost \$10,000; plans not yet furnished.

Winona, Minn.—Architects C. G. Maybury & Son report: For the Bohemian Catholic Society, brick church building, 44 by 120 feet; cost \$10,000; under way. For W. L. Nevins & Bro., two-story brick livery stable, 110 by 140 feet; cost \$10,000; material purchased, work not yet commenced. For H. W. Lamberton, remodeling brick building, 23 by 80 feet; cost \$9,000; work done by the day. For John L. Harris, two-and-one-half-story frame dwelling, 40 by 42 feet; cost \$2,500; projected.

PRICES OF LABOR.	Akron, O.	Austin, Tex.	Bloomington, Ind.	Buffalo, N. Y.	Chicago, Ill.	Cheyenne, W. T.	Cincinnati, O.	Dubuque, Ia.	Des Moines, Ia.	Detroit, Mich.	Evansville, Ind.	Fargo, D. T.	Hastings, Neb.	Joliet, Ill.	Kansas City, Mo.	Minneapolis, Minn.	Omaha, Neb.	Sioux City, Ia.	St. Louis, Mo.	Toledo, O.
Bricklayer	\$3.00	\$4.00	\$4.00	\$3.00	3.50@4.00	\$6.00	\$4.50	\$4.00	\$4.00	3.50	\$3.75	\$3.50	\$4.00	\$4.00	\$3.50	\$4.00	\$4.00	\$4.00	\$4.50	\$4.50
Brickmason (Front)	5.00	5.00	5.00	3.00	4.50@5.00	10.00	4.50	5.00	4.50	4.00	4.50	4.00	4.50	4.00	4.00	5.00	4.50	5.00	5.00	6.00
Carpenter	2.50	2.50	2.50	2.50	2.50@2.75	3.50	3.50	2.75	2.50	1.75@2.00	2.00	3.00	2.25	2.50	3.00	2.25	2.50	2.50	2.50	3.00
Cabinetmaker						3.00	3.00	3.00	3.00	2.25	2.25	3.00	2.25	2.50	3.00	2.25	2.50	2.50	2.50	3.00
Finisher		3.00			3.00	3.00	3.00	2.50	2.50	2.25	2.25	3.00	2.25	2.50	3.00	2.25	2.50	2.50	2.50	3.00
Gasfitter				3.50	2.50@3.00	3.25	3.25	2.50	2.50	2.50	3.50	3.00	3.00	2.50	3.00	3.00	4.00	4.00	3.50	3.50
Laborer	1.75	1.50	1.50	1.25	1.25@1.75	2.50	1.50	1.50	1.75	1.50	2.00	1.75	1.50	1.50	2.00	1.50	1.50	1.50	1.50	2.00
Painter	2.25	2.50	2.50	2.00	2.25@2.50	2.50	2.50	2.50	2.25	2.25	2.50	2.50	2.25	2.50	2.75	2.50	2.50	2.50	2.50	3.00
Glazier				3.00		3.50	3.00	2.25	2.25	2.50	2.50	3.00	2.50	2.00	3.00	3.00	3.00	2.50	2.50	3.00
Plasterer	2.50	3.50@4.00	3.50	3.00	8 hrs. 3.50	4.50	3.50	3.00	3.50	3.00@3.50	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.50	4.50	5.00
Plumber		2.50@3.00		3.50	3.50@4.00	4.00	3.50	3.00	3.50	3.00@3.50	3.00	3.00	3.00	3.00	3.00	4.00	5.00	5.00	5.00	6.00
Stonemason	3.00	3.50	2.50	3.00	4.00	5.00	3.50	3.00	3.50	3.00	3.50	3.00	3.00	3.00	3.00	3.00	3.50	3.50	4.00	4.00
Carver	5.00	5.00	4.00	5.00	4.50@5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	6.00
Stonemason	3.50	4.00	4.00	3.50	3.75@4.00	5.00	3.50	3.50	4.00	3.50	3.50	3.00	4.00	3.50	2.75	4.00	4.00	4.00	4.00	4.00
Stonemason	3.50	3.50	3.50	3.00	4.00	4.00	4.00	4.00	4.50	3.50	3.50	3.00	3.00	3.00	2.50	4.00	4.00	4.00	4.00	4.50
Roofer (Tin)	2.75	2.75	2.75	2.75	2.75	3.25	3.25	2.50	2.00	2.50	2.50	3.00	3.00	3.00	2.50	3.00	3.00	2.50	2.50	3.00
Slat		2.75	3.00	3.00	3.00	3.25	3.25	3.50	3.00	2.00	2.00	3.00	3.00	3.00	2.50	3.00	3.00	3.00	3.00	3.50
Stairbuilder		3.50	3.00	3.00	3.25@3.75	4.50	3.50	3.50	3.25	2.00@2.50	3.00	5.00	4.00	4.00	3.00	3.50	5.00	3.00	3.00	5.50
Steamfitter			3.50	3.50	3.50	3.50	2.50	3.50	3.25	2.00@2.50	3.00	3.00	3.50	3.00	3.50	3.50	4.00	3.50	3.50	3.00



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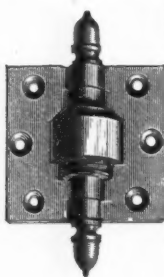
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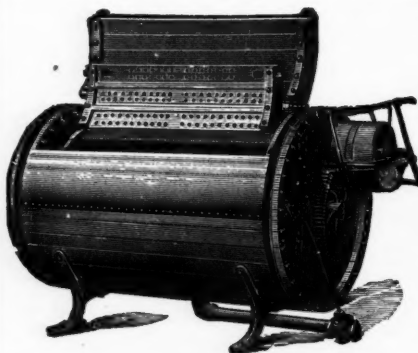
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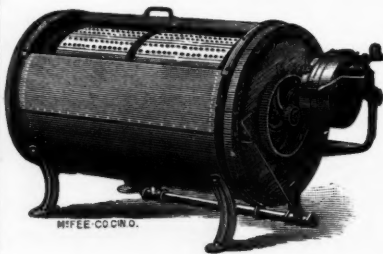
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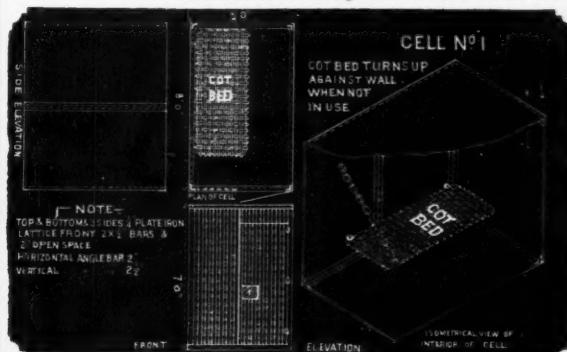
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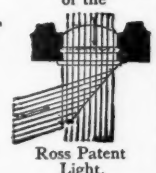
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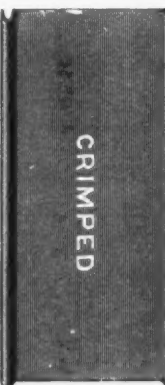


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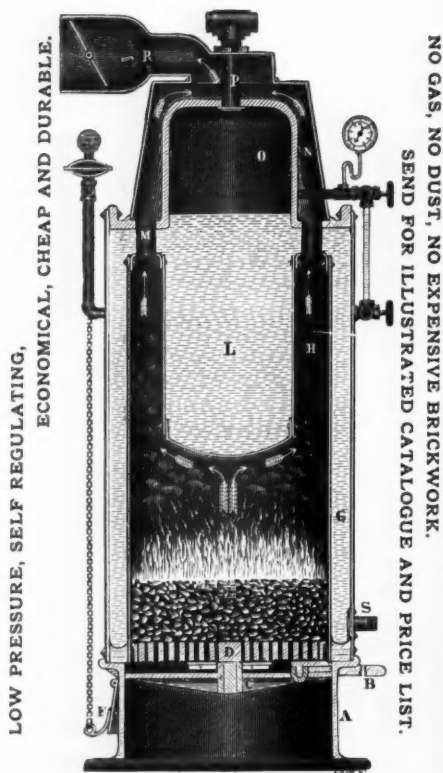
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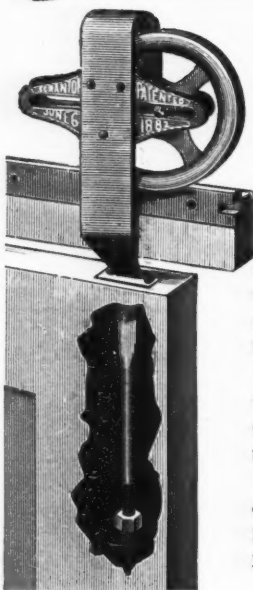
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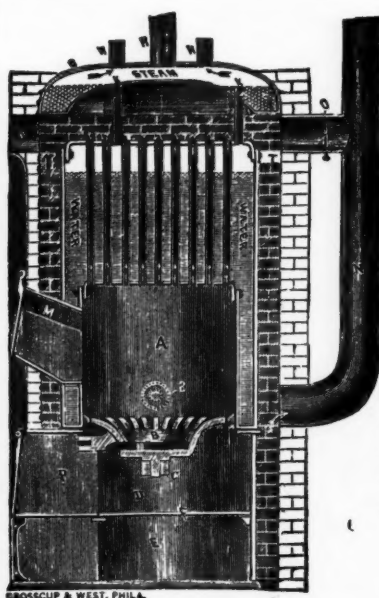
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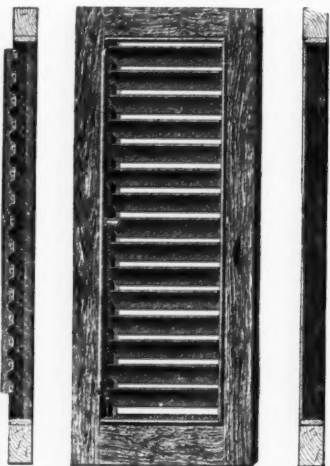
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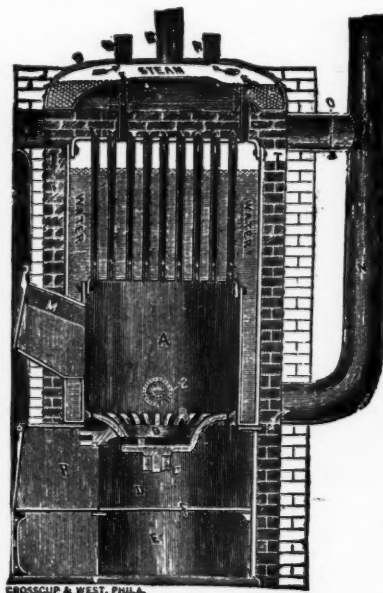
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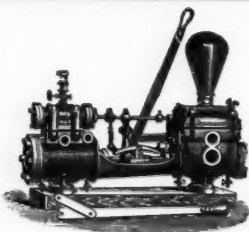
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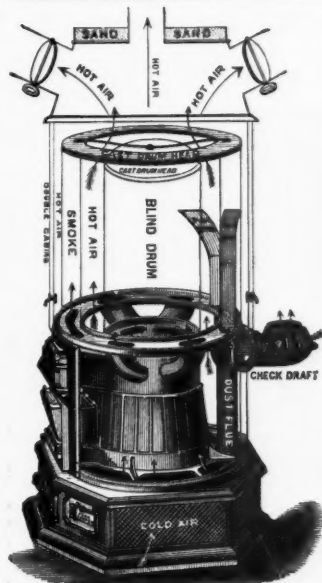
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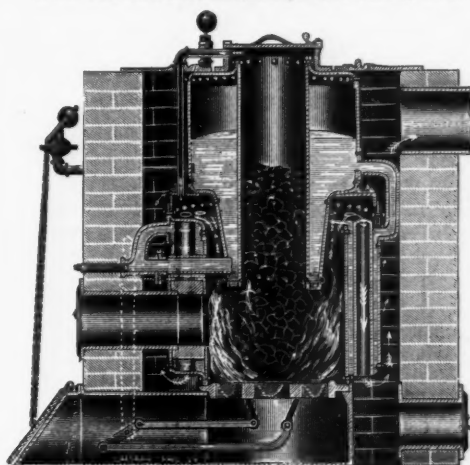
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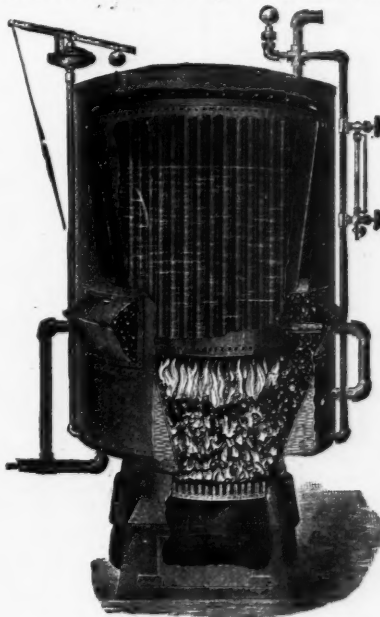
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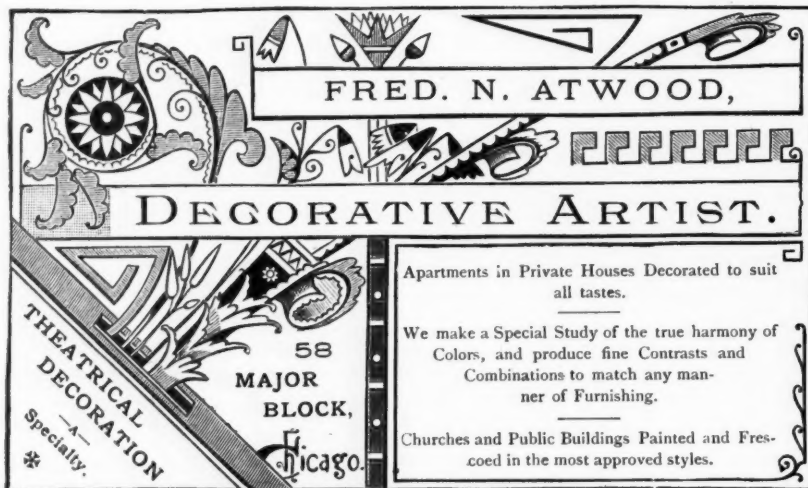
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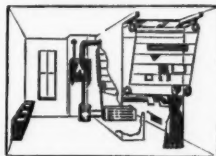
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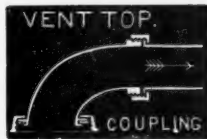
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And, as further confirmation of our statement, we quote from a letter just received from Messrs. W. Gilbertson & Co., Limited, of the Pontardawe Tin Plate Works, Wales, as follows:

"We are very glad you agree with us as to taking no wasters of the 'GILBERTSON'S OLD METHOD' plates. We shall redip them to take off the metal, and sell them as common plates, so that a double-dipped, double-coated or re-dipped plate is not a good one, as many people imagine."

We take from the *Metal Worker* of January 9 the following article, which you will notice fully confirms the statements made by us:

"'Re-dipped Plates' are supposed to be those which have been dipped a second time, so as to obtain a thicker coating. The term 're-dipped' is a misnomer, as are also many of the other terms in use in connection with the tin-plate trade, as we have already pointed out. Re-dipped plates in the works are those which are sent back to the dipping-pot to be treated the second time on account of some blemish or imperfection. Literally a re-dipped plate is a defective plate in which some blemish is covered up in the process of coating. Nevertheless, so-called re-dipped plates are largely sold at the present time as being better than ordinary goods. 'Double-dipped' is another term used in the same sense. 'Double-coated' is still another term practically synonymous with those already mentioned."

In presenting the above facts, we leave it to the trade at large to judge as to whether goods that are sold by any one under any misrepresentation can be considered entirely reliable.

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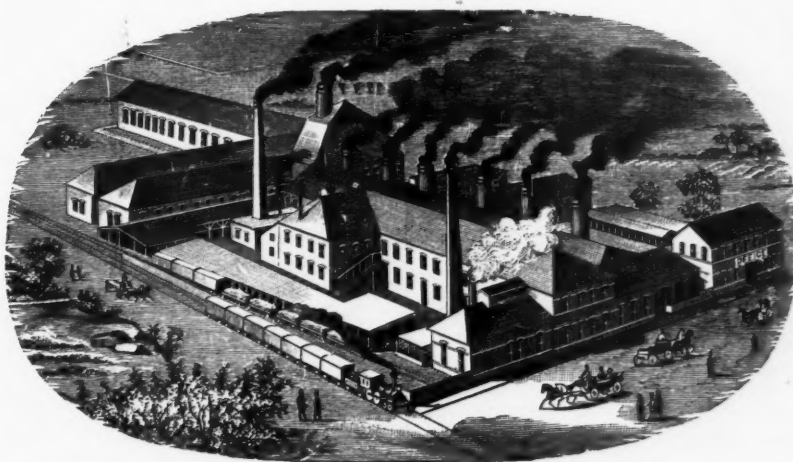
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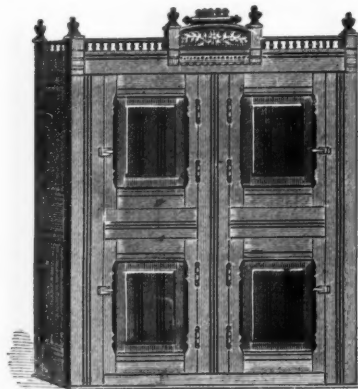
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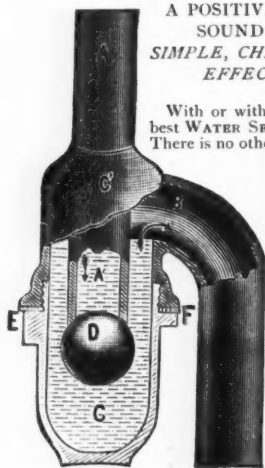
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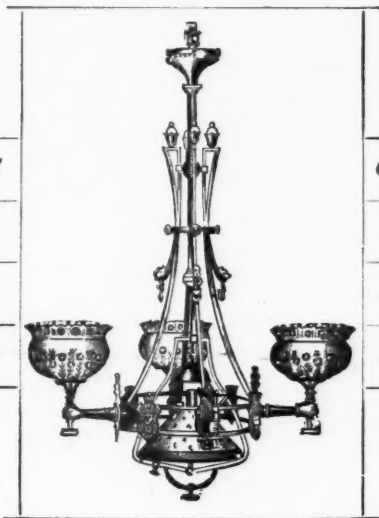
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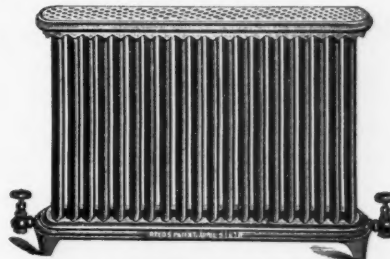
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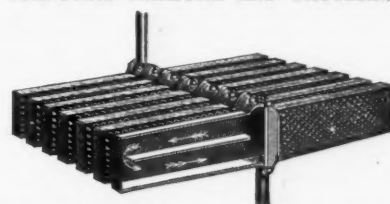
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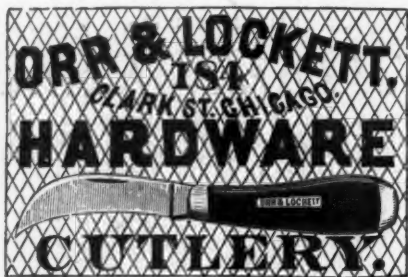
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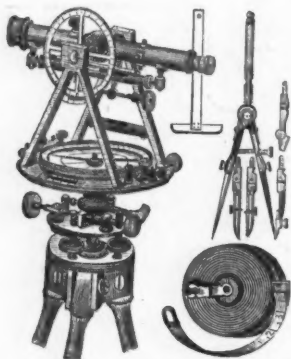
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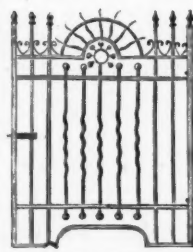
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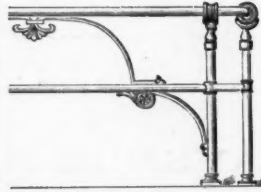
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