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NOWHERE, perhaps, in the line of official duty, do reputable men, with a standing in business circles that is unimpeachable, commit such egregious errors, and throw their actions open to the imputation of bad faith and unbusiness-like proceeding, as when, as public commissioners, they send out to the architectural profession the popular "invitation for competitive plans," samples of which have so many times been printed and criticised in these columns, and always pregnant with the spirit of a first-class lottery scheme, in which the chances are all against the investor. But such is the fact, and the history of architectural competitions in the United States contains many rich specimens of this class of effusions, showing a most lamentable ignorance of the whole subject, and displaying that miserable, short-sighted and ill-advised policy of endeavoring to put the competing architects to all possible trouble and expense, guaranteeing absolutely nothing

in return, ending sometimes in disaster, with loss of life, and always in disappointment, extravagance, and in the regret that all of our finest opportunities for embellishing our cities with architectural constructions of which every citizen would be proud, is frittered away by an apparently ignorant and conceited building committee, with not enough sense either to profit by the errors of the past or to seek advice from that only legitimate source, the architectural profession, thoroughly reliable members of which can be found in every large city.

TO again illustrate how stupid and unbusinesslike these "invitations" are, we quote the following from Indianapolis, which is entitled "Instructions to Competing Architects."

OFFICE OF MARKET HOUSE COMMISSIONERS,
INDIANAPOLIS, December 26, 1883.

Plans and specifications with estimates will be received until two o'clock P.M. February 20, 1884, for new city buildings to be erected on the site known as the East Market Place, on the north side of Market street, between Delaware and Alabama streets. A topographical map of the ground may be seen in the office of the city civil engineer.

The proposed main building is to be used as a market house, with a city hall above, with proper ante-chambers attached. The first, or market story, is to be fifteen feet in height, commencing three feet below the grade of the sidewalk. An adjoining market house on the east end of this main building to be one-story high, at a suitable grade above the sidewalk, the walls and supports to be built of brick and iron, with a slate or tin and glass roof, to be thoroughly lighted and ventilated. The market house floors are all to be of concrete.

The outside walls of the main building shall be built on a bed of concrete, with stone in foundations up to the base course or water table line, the stone to be taken from the St. Paul, Sherwood or North Vernon quarries, or other Indiana stone of equal quality. The superstructure to be of brick with stone or terra-cotta trimmings. If stone, oolitic limestone shall be used for this part of the building. The roof to be covered with slate, with galvanized iron cornices.

Arrangements shall be made for heating with steam, ventilating according to the latest improved methods, lighting by electricity and gas, and for water supply to all parts of the building. A basement for storage rooms and heating apparatus shall be provided.

The main hall must be provided with galleries and have a total seating capacity of about six thousand. All drawings of plans of the several stories, roof, exterior elevations and sections, to be made to a scale not less than one-eighth of an inch to the foot, and larger where possible to make them. Colors shall be used to designate the different materials. Perspective drawings shall be made showing a view of the building from a southwest direction, and the plans shall clearly set forth the different parts of the building.

The following drawings of the main building are required: 1. Plan of foundation. 2. Plan of each of the several stories. 3. Plan of the roof. 4. Plan of east and west ends and south side elevations. 5. Traverse and longitudinal views, together with any further plans or sections which may be necessary to elucidate the interior and exterior construction. Also, a block plan showing the location of the building on the site. Any and all drawings necessary to exhibit the detail of construction, shall be to a scale of not less than three-fourths of an inch to the foot.

The following plans are required for the outside one-story market house: 1. Plan of foundation and supports. 2. Plan of roof. 3. Elevation showing the south and east fronts.

Drawings must be left at the mayor's office in the court-house at the time designated. Architects must limit the cost of the buildings complete to one hundred and fifty thousand dollars, furnish a bill of quantities, and confine their estimates to ninety (90) per cent. of that amount.

Any further information which architects may require will be furnished by the commissioners.

The plans will be examined by the commissioners and the city engineer. They will make a thorough examination of and test the estimates submitted, and if they shall find them correct, that the building contemplated in such plans can be constructed within the amount given; is suitable in all respects as to permanence and convenience; is adapted to all the purposes and requirements of a city hall, with proper ante-rooms and a market house; that the materials to be used shall be in texture and quantities such as to insure, stability and endurance, and that the architectural symmetry and ornamentation are in harmony with each other, then the commissioners may select two plans which to them may seem most meritorious, and afterwards shall classify the two so selected as No. 1 and No. 2. For the two plans so selected the city of Indianapolis will pay the following premiums:

For plan No. 1, four hundred dollars. For plan No. 2, two hundred dollars. And said plans shall become the property of the city.

Should the city, through its common council and its board of aldermen, decide to build and adopt one of the plans selected by the commissioners, a contract will be made with the architect whose plan is accepted, such contract to be subject to the approval of the council and board of aldermen. The compensation to be paid said architect shall not exceed three (3) per cent. of the entire cost of the buildings, for all plans, specifications, details, and supervising, from which per cent. shall be deducted the amount paid as a premium for such plan. It must be distinctly understood that in no event will the architect be allowed any percentage, or other compensation, on any excess of cost over one hundred and fifty thousand dollars.

D. W. GRUBBS,
J. T. LAYMAN,
W. F. A. BERNHAMER,
S. H. COBB,
THOS. TALENTIRE,
ISAAC THALMAN,
SIMEON COY,

J. H. BALDWIN,
JOHN COBURN,
V. T. MALOTT,
T. O. MORRIS,
JOHN R. PIERSON,
JAS. RENIHAN.

Commissioners.

THERE is but one legitimate object in a competition, and that is to enable the committee to choose the architect who, for a given expenditure, produces the most appropriate building. To this end preliminary studies, with an estimate based upon the cubical contents of the proposed structure, is all that is necessary to enable professional experts to select two, three or more competitors, who should be paid a fair compensation for developing their designs. If estimates are necessary, they should be made by paid experts; or if the designers make estimates, they should be verified by experts, and not by a city

engineer or by a committee of non-professional citizens. From these selected designs an architect should be chosen and a fee of five per cent be paid him in addition to anything he may have earned in competition. We will not take time and space to show the false reasoning, false economy and false estimate of the architectural profession, which is shown in every proposition of this extremely unique and wonderful list of "instructions," but will ask what will the good judgment and ability of the city engineer do the city or the cause against thirteen commissioners, even though he had an architectural as well as an engineering capability; and how can an architect afford to make the drawings asked for when the wages of the draughtsmen employed to do the tracing would amount to more than the \$400 offered for the selected plan? Note the paragraph—"and that the architectural symmetry and ornamentation are in harmony with each other, then the commissioners may select two plans," etc. What does this mean? Nothing but the fact—in the plainest kind of language, too—that the commissioners who voice it have not the slightest conception of what they are talking about, and at once proves the fate of any plans that may fall into their hands for "examination."

WE are surprised to see the city of Indianapolis, above all others in the United States, engaged in such a hazardous and foolish undertaking, as they have before them today an example of what this course of procedure leads to that is unequaled. Their state house is a lesson to architects who would be competitors for such public work, and we would hold up before them the fate of that architect who, surrounded and overwhelmed by the difficulties an ignorant if not designing board of commissioners drew upon him, died before his work was half finished. There has been too much of this sort of thing in the history of public building, and until the people can be brought to see that the architecture of the country belongs to the architectural profession, and that no layman is capable of judging of architectural merit, and that it is as unbusiness-like to ask an architect's services unrecompensed as it is that of a lawyer, these mistakes will be made, these public abortions of building construction will be performed, and the loss of money and the loss of life from falling walls and ignorantly planned structures will be the daily chronicle of the public press.

IT is time that a practical and correct method for making public competition was adopted in this country. We have got to the stage where reputable architects will have nothing whatever to do with the plan now in vogue, and the result is worse than mediocrity,—public buildings that, if they do not tumble down, will be a wonder to the future age and a libel upon the present. Perhaps the best system, and one we would be glad to see adopted in the United States, is that of France, where all government, departmental and municipal buildings, both great and small, are awarded by public competition—open to all; but this great publicity is really very greatly reduced by the extreme care used in the selection of the juries who are to decide upon the merits of the drawings submitted, so that only competent men really stand a chance of success. Ordinarily the juries are composed of a few men who have a practical knowledge of the particular requirements of the building in question, to whom much is deferred relative to the convenience of the plan for the proposed building. But the greater majority of the juries are composed of a certain number of well known architects appointed by the government, department or city, and also a certain number chosen by vote by the competitors engaged. Buildings may possibly be roughly divided into three classes:

1. The smaller kinds of edifices, such as schools, small

- markets and ward halls. 2. Town halls, large hospitals, small theatres, etc., in fact, ordinarily large buildings. 3. Very important works, upon which almost unlimited money is to be spent, and which consequently are extremely rare. The new Opera House and the new Hôtel de Ville, at Paris, are the only recent ones of this class. Usually three or more money prizes are offered, which of course are somewhat proportional to the money to be expended; also often there are silver medals; and creditable designs not worthy of any of the above are favored with "Honorable mention." Ordinarily perspectives are not required; in fact, they are not wanted.

THE juries complain that they are catch-traps simply for the ignorant, and that they cannot judge of the real merits of a piece of architecture except in elevation. Consequently the elevations are shaded with care, and produce almost the effect of perspectives without any of the distortion. To slightly illustrate these classes, take a glance at some recent (comparatively) competitions. For the first class, or smaller buildings, there are ordinarily no preliminary competitions of sketches. Take for example that for a Mairie or ward hall, at Pantin. Copying from the published notice to architects:

The sum to be expended, 480,000 francs; jury under the presidency of the "Maire," composed of six members named by the competitors, three members named by the prefectural administration (*i.e.* the state), and three members by the municipal council. Four prizes—1st, fr. 3,000; 2d, fr. 2,000; and 3d and 4th, fr. 1,000 each. If the jury decides that one of the drawings classed above shall be executed by its author, he will receive no prize but will be given charge of the work.

It will be noticed that the number of architects to be named by the competitors and the state will far outnumber the probable political wire-pullers named by the municipal council and headed by the "Maire." The jury in this class is not necessarily composed of extremely well known architects, but still they must have a certain position, otherwise they would never be elected on a jury. In the second or larger class, take for example the hospital at Roubaix:

Sum to be expended, not including heating and ventilation, 700,000 francs. Jury to be composed of three members of the section of architecture of the Academy of Fine Arts, and two members of the administrative commission of hospitals. Prizes—1st prize, the execution of the work, or a medal and fr. 3,000; 2d, a medal and fr. 2,000; 3d, a medal and fr. 1,000; 4th and 5th prizes, each a medal.

In this case it will be seen the jury is selected with still greater care, the professors at the finest art school in the world being the majority of the jury. In the third and last class, where enormous sums are to be spent, and where even wealthy architects could not afford to spend the large sums requisite for such thorough and searching drawings as are required, as in the case of the new Opera, where 50,000,000 francs were expended, and where almost every architect and even every architectural student wished to try his hand, for to obtain it was wealth and fame, a preliminary competition was opened, requiring really the merest sketches, and from these competitors a certain number were chosen to work up their drawings, all such receiving a certain compensation.

THE Opera plans were only decided upon at the third competition, and M. Garnier awarded the execution of the work; but in this case the jury was composed, not of well known architects or even of professors at the École des Beaux Arts, but of the very highest architectural authority in all France, and one might say the world, the members of the architectural section of the Institute of France. One of the great benefits (especially for the younger members of the profession) of the French method of competition is, that the drawings are on public exhibition, announced in the papers, both before and after the operation of the jury, so that one can form his own opinion and then afterward see how it agrees with the verdict of those known to be competent judges. At all competitions designs are submitted under some motto or device, and in case of important competition the jury sometimes hold public sittings to answer questions relative

to the proposed constructions. By this method the work of constructing public buildings always falls upon capable men, while in this country, and by our "cheap" system, never. Yet, while we have no world-renowned École des Beaux Arts to draw our juries from, we have great architects and engineers; and until these, and not the farmers, merchants and professional men of the country, of which most boards of commissioners are composed, have charge of our public construction, and not until then, shall we have buildings that will rival those of the old world in architectural grandeur.

THE proper ventilation of schoolrooms ought to become one of paramount consideration in every well regulated community. This is especially the case in all large cities, where large and costly buildings are erected to accommodate the ever-pressing demands of many thousand children, whose health and lives ought not to be placed in jeopardy by being crowded into illy ventilated rooms. Every one will admit that this question is one of deep vitality. During recent years the question has received a large degree of patient study and earnest consideration and investigation, both in Europe and in this country; but while the subject has been one of prolific discussion, both at home and abroad, among the most eminent students of hygiene, and men engaged almost exclusively in scientific pursuits, still it must be conceded that with all the progress made in architectural skill, no absolutely perfect system of ventilation has yet been discovered. At a late meeting of the Medico-Pedagogical Society held in Berlin, Dr. Toselowski gave an address on the vitiation of the air in unventilated rooms where many people, which is caused by the exhalation of carbonic acid gas from the lungs. The quantity of this gas given off by one individual amounts to about twenty litres an hour. This being the case, the air of the best arranged classrooms, where a space of four cubic meters is allowed for each student, would contain 1-200 of its volume of that gas. The fact is, however, that first-class rooms seldom contain over two cubic meters of space for each scholar, which readily explains why the air of those rooms, which is also contaminated with other human exhalations besides carbonic acid, seem disagreeable to persons entering from the outer air. The Doctor, in view of these considerations, thinks that the following rule ought to be adopted and enforced, viz: "Every classroom shall be provided with an apparatus for ventilation, and all the scholars shall leave it for a few minutes at the close of every hour." We are satisfied that such a rule could never be made to answer satisfactorily in the public schools of this city.

IT may be mentioned that such noted experts as Dr. Fredrick Falk, and Prof. Develle, of Paris, have recommended German earthenware stoves for heating schoolrooms, because scientific experiments have revealed many objections to the use of heating by hot air. Experiment showed that sixty litres of hot air taken from the pipes by means of an aspirator and drawn through potash bulbs containing absolute alcohol, colored the latter yellowish-brown, and numerous dark flakes were seen floating in it. After filtering and evaporating, an extract was obtained which was insoluble in water, was of a brownish color, had an intensely harsh taste, and possessed a burnt, tarry odor. The dark-colored flakes proved to be soot. According to Tissandier, there are eighteen milligrammes of air-dust in one cubic meter of air, and twenty-five to thirty per cent of this dust consists of organic matter. The experiment just described confirms the view that the organic part of the dust of the air is wholly or partly decomposed in the highly heated iron pipes into tarry products. This decomposition goes on below a red heat (at 400 degrees centigrade), and Prof. Tuchschnid has

shown that at the same degree of heat the iron of the pipes is permeable to carbonic oxide and carbonic acid gas, which may therefore be carried into the schoolroom with the air. Besides the impurities thus introduced into the rooms, the injurious effects upon the organs of respiration of dry, hot air itself is now well known, though the better class of radiators, both direct and indirect, obviate this to a proper degree. Dr. Toselowski proceeds to explain in fuller detail the absolute necessity of ventilation, but the subject is too large to permit of a more lengthy notice. It is known that atmospheric air contains about four parts in 10,000 of carbonic acid gas as a normal constituent, and if this quantity is taken as a measure of the purity of air, the latter, according to Peltenkoffer, ought to contain more than seven parts in 10,000, if the increase in carbonic acid is due to that given off in the breath, and the proportion should never be allowed to exceed one part in 1,000. Taking this as the extreme limit, it is reached in an hour's time, even when the schoolroom so arranged as to allow five meters space for each child (which is rarely the case), and is ventilated at the rate of thirty-five cubic meters of air an hour for each child.

THE people of St. Paul are to be congratulated upon the prospect of getting a new court-house. The present structure, built in territorial times was at the start an illy-conceived and poorly-constructed affair, but it has had its purpose and served its time, and something far better and on a grander scale is now imperatively demanded by a city which is now putting on, supporting with becoming dignity, metropolitan airs. A writer in the *St. Paul Pioneer-Press*, in view of the fact that the court-house commission has held a meeting and taken preliminary steps toward procuring plans for the new building, very pertinently remarks:

"As this building is one which more than anything else will give permanent character to the city of St. Paul for generations to come, and will, or should be, an ornament and a monument to the city such as the people will always take pride in, it becomes the duty of the citizens and their privilege to see that the work is done in the most satisfactory manner, and after the wisest plan that can be found. Our court-house commission should consider most carefully all sides of the question, get all the information possible about other buildings of this sort, find the reasons for their success or failure, and profit by them; being most cautious in everything and doing nothing too hastily. * * * In the first place, a sufficient sum of money should be placed at their disposal, if it has not already been done, to allow the board to take into their number some expert in such matters, whose advice would be of value, or that they should send a committee from their number to inspect the principal court-houses and works of this character in larger cities, and so be able to proceed with knowledge, and to take advantage of the experience of other commissioners, avoiding their mistakes. * * * The question of obtaining plans for the building will probably be a most difficult matter, and should be done with much deliberation and caution. Our mistakes in St. Paul in this respect have already been too numerous, and should not be repeated. Experiences in such matters would dictate that the methods found to work best in older communities are the best to be followed in this case; that only the best architectural talent should be employed, and the men of such talent can only be obtained by approaching them in certain recognized and natural ways."

These suggestions are practical, and ought to afford food for thought to the commission. The city of St. Paul should have a court-house building which will in every way reflect honor upon the city and fully meet all its wants for many years to come. The men who are to secure such a structure ought to be earnest and thoroughly practical men, inasmuch as they are to determine what kind of a building the new court-house is to be, and they must take into consideration what the future wants of the city will require. They cannot afford to make any mistakes in its construction, and to avoid these they must see for themselves what has been done elsewhere, and employ architects who are well known and of established skill and ability. The architectural blunders which caused the fall of the south wing of the new capitol at Madison, Wis., must be borne in mind, so that there may be no need in the future of an expert inquiry into the cause of a similar disaster at St. Paul. To employ only the best architectural talent, and to have the work done in a thorough and masterly manner, is clearly the duty of the commission, and St. Paul has a large number of capable architects any one of which would, without doubt, give these gentlemen points upon professional usage and charge nothing for the information.

THE Chicago Manual Training School gives promise of great usefulness in the future. At the examination held January 3, thirty-eight applicants were admitted. The next examination will be held February 1, at 9 A.M., at the school building, corner Michigan avenue and Twelfth street. The school will be opened Monday, February 4. It is gratifying to know that this enterprise is meeting with the success its character deserves. Believing that the present system of education does not afford their youths over twelve years of age the benefit that mechanical training schools would produce, the Mechanics' Exchange of St. Louis has petitioned the board of public schools to take into consideration the feasibility of establishing manual training schools in that city upon the most practical and useful basis. The good already done in St. Louis by her training school, and the popularity of such institutions among her leading citizens, is illustrated by the will of the late Ralph Sellev, who, from an estate of probably less than \$150,000, bequeaths \$40,000 for the use and benefit of the Manual Training School connected with the university. There is no worthier object, and as the cities of the United States contain many such broad-gauge, public-spirited men, the success of such schools is assured. The Washington University, in championing training schools in St. Louis, is doing a great work, and certainly merits such recognition, though the training school in this city is formed, and is the one likely to be considered as a model.

THE building outlook for the ensuing year is fully as good as that presented at the opening of 1883, and architects are confident that the record will be a large and satisfactory one. The boards at all the offices are well filled with projected work of both a public and private character. A vast amount of work is carried over to be completed this year, and several very large and costly public edifices will be fully completed and occupied before the summer is ended. Plans are under way for hundreds of blocks and residences, some of which will be models of architectural skill, and, barring any trouble among the bricklayers, the fall months will find these all complete. The large number of flats built during the past few years seem to have pretty much filled a want, and there will be less of this kind of building done this year than last. Many cottages and fine brick residences will be commenced and pushed forward rapidly as soon as the weather will permit. Altogether the prospects are exceedingly flattering, as the tendency of capitalists is to place money into realty and building, the money market being exceedingly low and the state of trade pointing to this class of investment as the most lucrative, or at any event the most secure.

THE organization of The Chicago Real Estate and Renting Agents' Association, formed for the mutual protection and the advancement of the interests of both the agents and their clients, is undoubtedly a move in the right direction. That it is destined to meet with the active support of the profession in general may be inferred from a glance at the list of membership, which includes some of the oldest and most prominent real-estate men of Chicago, and this, too, while the organization may be said to be still in its infancy. The real-estate fraternity of Chicago is composed of men of great energy, hard workers well calculated to succeed in what they undertake, and in seeking to raise their profession to a higher plane they have set before themselves a task worthy of their efforts. The association was formed in 1883, and its first annual banquet, held at the Palmer House on the 15th inst., was largely attended, and the enthusiasm which prevailed was a happy omen on the occasion of launching the society on the second year of its existence.

Review of Chicago Building for 1883.

RETROSPECTIVE of the building progress of Chicago during the year 1883, the fact is no less portentous than gratifying that no other city in the country, New York alone excepted, has made a more brilliant record in this respect. The statistics furnished by the city building department show that during the year the total number of permits granted were 3,204, and authorized the erection of 4,086 buildings, with frontages amounting in the aggregate to 85,588 feet, and at a cost of \$22,160,610, exclusive of sheds. If we include the county hospital and city hall, \$475,000, and sheds, \$160,000, a total is reached of \$22,795,610. The measure of progress has been the largest in the West division, the frontage there constructed reaching 48,629 feet, at a total cost of \$9,592,540, as against 19,986 feet in the South division, costing \$7,326,610, and in the North division, 17,273 feet, at a cost of \$5,241,460, making the total as given in the above former figures. It is noticeable that the past year has marked the commencement of more large structures than any year since the year immediately following the great fire, and even this has been abridged by the protracted and foolish strike of the bricklayers during the spring months, which suspended for an "indefinite period" the erection of several costly structures, both for public and private use, and for which plans had been fully prepared, and which, had the work on them gone forward, would have increased the above estimates nearly \$2,000,000. The almost total suspension of building operations during the spring months was indeed a serious drawback to capitalists, and affected, almost disastrously, many other branches of business, especially such as are closely allied to building operations; but the strike once terminated, the buildings immediately put under construction were sufficiently numerous to keep the vast army of workmen busy during the summer and fall months, work being suspended only by the severity of the weather, which set in in the latter part of December. No other city in this country, with the one noted exception, presents a larger outlay of capital in the line of building enterprise, which establishes beyond question the strong faith and assurance moneyed men feel in the future of this wonderful city. It is to be noted, in this connection, that by far the larger number of these structures in each division of the city were private dwellings; and the fact is also to be recognized that the buildings created are of a better and more substantial class than those erected in former years, the material entering into their construction comprising, to a large extent, pressed brick, which has been used largely in the construction of outer walls, especially fronts, giving them an appearance of tasteful as well as substantial elegance. A number of the larger and more costly edifices in course of construction for corporate and public uses, and into the construction of which only the costliest material enters, have attained such progress that midsummer of the present year will witness their completion, while others still more stately and of still more enduring contexture will be finished in the fall. Chicago has not yet reached that point in her history when the supply of her dwelling-houses is in excess of the demand. In times of more than ordinary depression an exacting economy may compel the retirement of many families to less pretentious quarters than they would otherwise occupy, but in comparison with other cities the signs "To Rent" are far less frequent here than elsewhere.

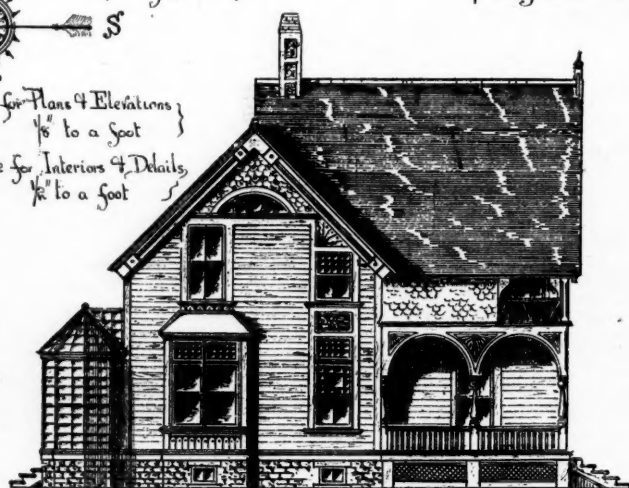
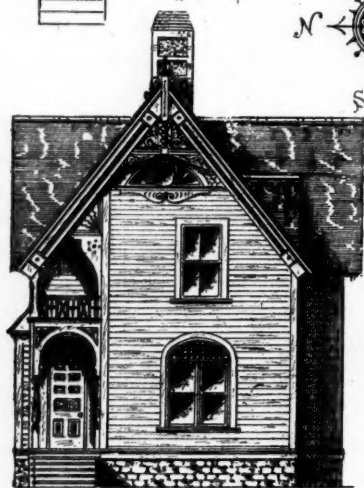
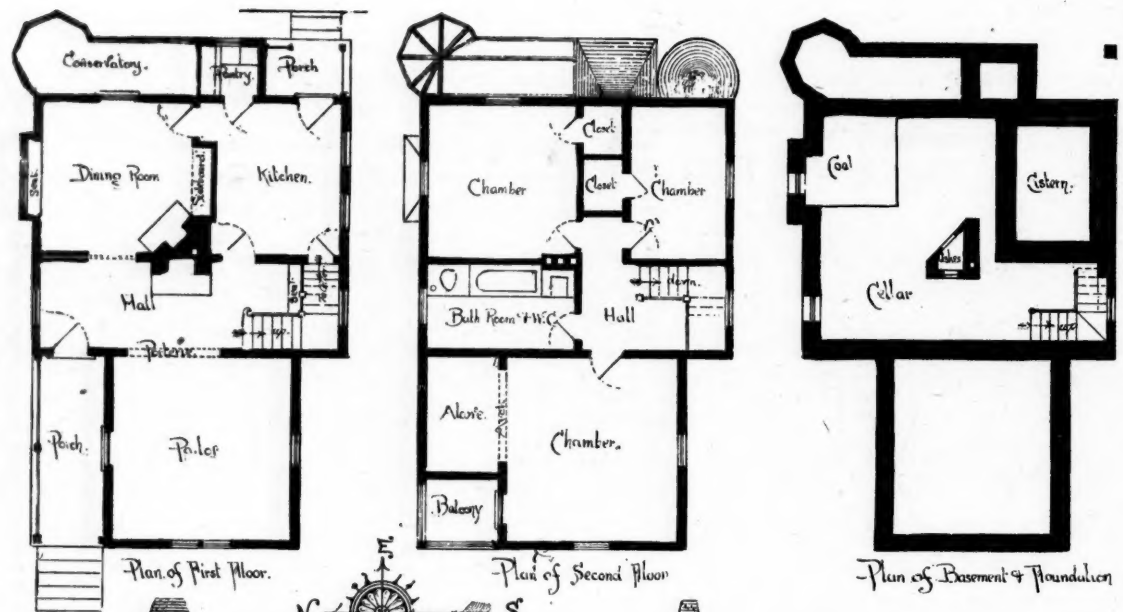
Situated as Chicago is, on a broad expanse of prairie, there is hardly a limit to her future potentiality. The almost miraculous achievements of the past afford to those who are living today a possible conception of her future greatness and renown. It is well, therefore, that those who

are the active builders of Chicago—the capitalists of the city—through our expert architects, should strive to do whatsoever their hands find to do with all the power at their command, and in the construction of both private and public edifices have a regard to their permanency, no less than to the substantial beauty of their design and finish. No other city is more favorably situated, nor has at its convenience and command all the prime essentials for making its monuments, of whatever nature, enduring. With timber and iron, granite and stone, in quantities without limit lying almost at her very doors, there is no reason why these materials should not enter more largely each year into the construction of all her large edifices. The buildings constructed during the past year—at least many of those which are of a public character—it is pleasant to chronicle, have partaken more largely of a fire-proof nature in their construction than any buildings previously erected in the entire history of the city. Perhaps an ordinance requiring that all public buildings—or, for that matter, private buildings—which exceed a certain cost should be made as near fire-proof as possible, would not be found without great practical benefit, if its provisions could be enforced. Every building erected in a city like Chicago, costing say \$50,000 and upward, ought to be practically a fire-proof structure. The time has come when building material of nearly every description can be supplied in this city at a moderate expense. Brick, which now enters so largely into the construction of buildings, is one of the great industries of this city, and the improvements in its manufacture of late years have been very marked. The local yards turned out during the year 1883 about 320,000,000, leaving at the close of the year less than 50,000,000 on hand. The average price of brick during the year was about \$7 per thousand, the prices averaging about \$1 to \$2 per thousand less than during the preceding year. The competition existing among manufacturers is likely to keep the prices at a reasonable figure for some years to come. It is quite probable that the art of brickmaking has, after so long a lapse of time, at last reached as near to perfection as it is possible to attain. Aside from the enormous quantity of common brick used, it is estimated that some 25,000,000 pressed brick was consumed, those from outside points being from St. Louis, Indiana, Philadelphia, Trenton, Baltimore, Zanesville, and one or two other points. Lime, which must be associated with brick, has averaged during the year about eighty cents per barrel, and upward of 700,000 barrels were sold during the year. The quantity of firebrick used during the year shows an increase of about ten per cent over the previous year, involving an outlay of about \$325,000. We have in Chicago, in all, about sixty-five brick-yards, twenty-one cut-stone cutters, twenty marble-workers, fourteen gravel-roofers, four lime-kilns of large capacity, and two terra-cotta works. The combined capital of these industries amounts to \$2,481,000, giving employment to about 5,000 workers, and yielding a product of \$6,600,000. It will readily be seen from the foregoing exhibit, that as far as the articles which enter so largely into the construction of our buildings are concerned, we find them in unlimited quantities at our very doors, and they are placed at the command of the capitalists at a comparatively low cost, certainly on terms equally as low as they can be furnished elsewhere.

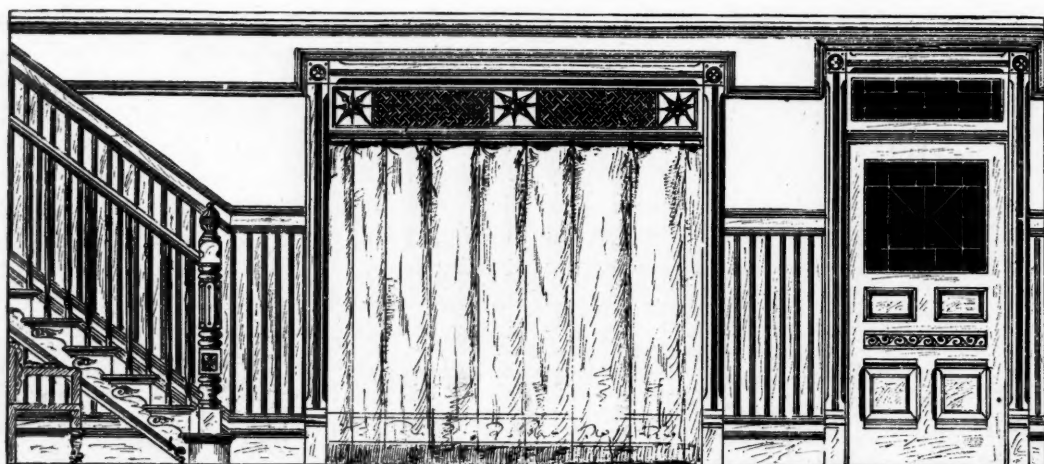
It is somewhat an anomaly in the history of the lumber trade of Chicago that the receipts for 1883 show a decrease from those of the year previous, amounting to some 225,000,000 feet. But the year 1882 was an uncommon one in the history of the trade, and it is quite unlikely that so large returns will be made again for some time to come. The stock on hand at this writing is not far from 583,000,000 feet, com-

prising all varieties, and builders during the past year have had the advantage of an exceptionally unsettled and cheap market. As a matter of fact, the average cost to put 1,000 feet of lumber on this market has been about \$12.50, and it has been sold at an average of \$9.50 to \$10.50. The year has been one of great stress among the Michigan lumbermen. Dealers here have purchased at low prices, but they have also been obliged to sell at low figures, which have favored the builder. The local demand for consumption has taken about 500,000,000 feet, but this has been sold at a fair profit. The planing-mills, sash, doors, mouldings, etc., manufacturers of Chicago represent a combined capital of \$4,175,000, give employment to upward of 5,500 workmen, and turn out an annual product of about \$12,500,000. While Chicago receives the great bulk of her lumber from Michigan and Wisconsin, the finer and more durable descriptions of lumber for costly house-finishing have come to us from the vast forests of yellow pine in the South, notably from Georgia, and not an inconsiderable amount from Alabama and Florida. The yellow pine which comes to us from those states has been growing in constant favor with builders; and in many of the finest edifices in Chicago this wood is used. During the year, also, not an unimportant amount of fine woods have been received and used from California, among which the celebrated redwood from that state has found a prominent place. Hard woods of almost every kind and description, from the most costly to the cheapest, are to be had here, and at prices which will compare favorably with those ruling at any other inland point in the country.

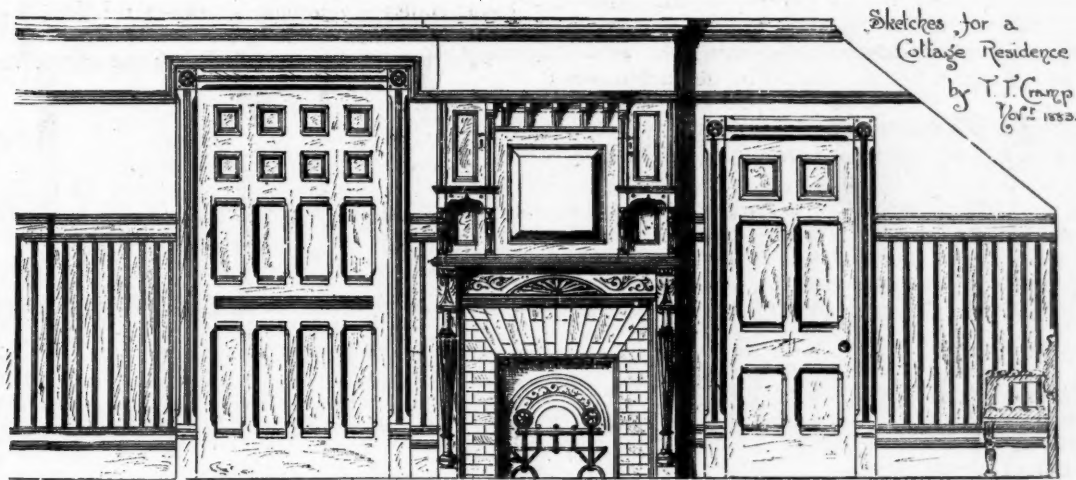
Decoration and the adornment of private houses and public buildings in Chicago is a matter which, in late years, has received very marked attention. The marble-workers bear testimony that in this line business has been remarkably good during the year, and considerably in advance of the year preceding. Large quantities of marble are received here in the rough from the celebrated quarries of Vermont and also from the Southwest, and here adapted to any desired want. The painters have also had a comparatively prosperous year, inasmuch as they have been able to purchase their supplies at reduced figures. Fresco-painting has increased in popularity and extent, and Chicago can boast that some of the work done in this line by her own artists is not surpassed anywhere in this country. The time has gone by when Chicago finds it necessary to send to New York to secure work of this kind. Our decorative artists are equal to any emergency, and where an artist is required from New York it has been found that those who come here have performed their work in an inferior manner. House decorating has become indeed one of the fine arts, and our city is now so thoroughly cosmopolitan, and its building and architectural growth so rapid, that several large houses are amply and handsomely sustained which devote their entire time and attention to this one branch of business alone. Architecturally speaking, Chicago has grown great and grand by reason of the skill and ability of her architects, acquired through long years of close and faithful application to one of the severest of studies—a study which carries with it at all times a peremptory strain, oftentimes taxing both body and mind to the utmost tension. They have erected here on all sides more enduring monuments to their genius and skill than either marble tablet or granite shaft can reveal, and which will imperishably link their names with all that is really grand and noble in the architectural and historical annals of the city. Owing mainly to the strike among the glass-blowers the past season, plate-glass advanced forty per cent, and factories of the country have been severely taxed to fill the demand made by the extraordinary amount of building done.



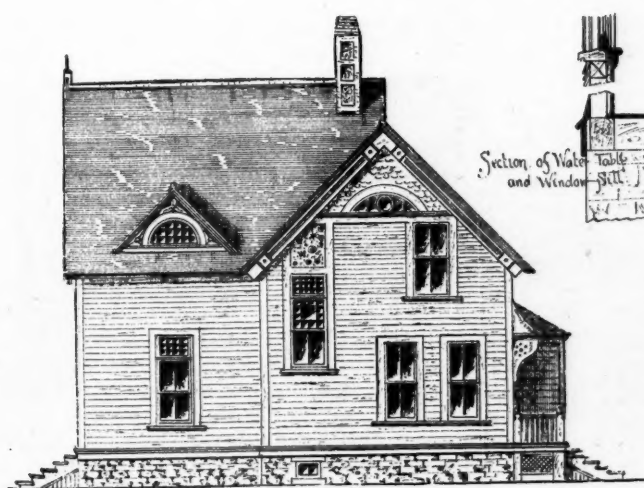
Scale for Plans & Elevations }
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 Scale for Interiors & Details }
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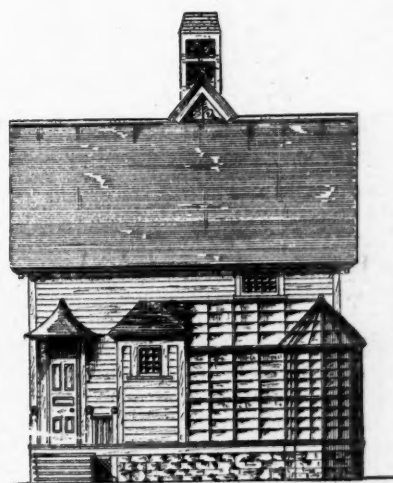
ELEVATIONS, PLANS, AND DETAILS OF A CHEAP



East Side of Hall.



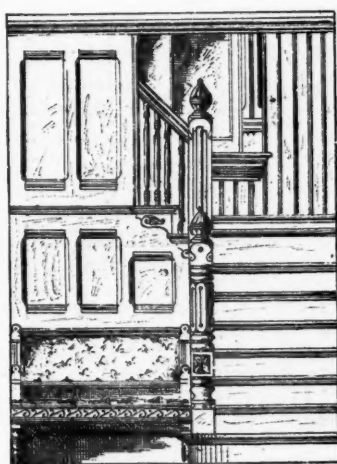
South Elevation.



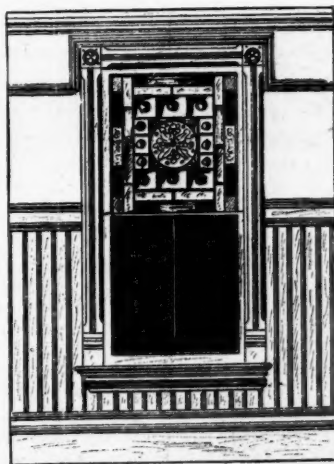
East Elevation.



Section of Water Table and Window Sill.



South End of Hall.



North End of Hall.



Section of Main Cornice.

Half Elevation of West Gable

COTTAGE RESIDENCE.—By T. T. Cramp, Architect.

Architecture.

LECTURES DELIVERED AT THE UNIVERSITY OF CHICAGO.

BY W. L. B. JENNEY, ARCHITECT.

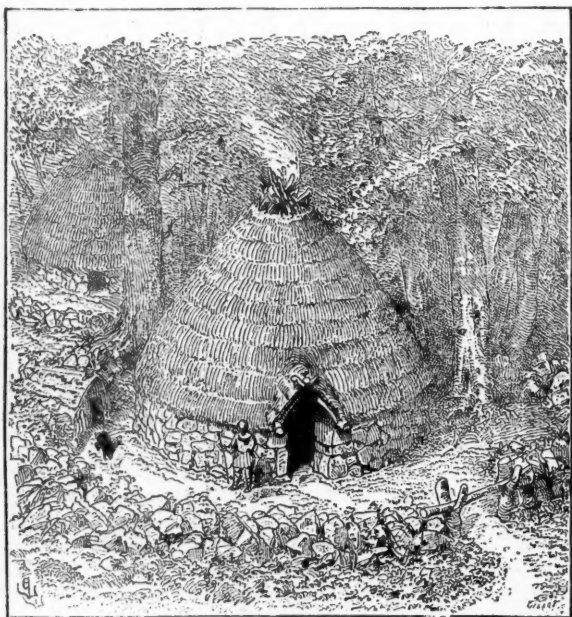
PART X.—THE CLASSIC PERIOD.

NOT long ago, not only the history of architecture, but the history of civilization, commenced in Greece, in the eighth century before our era. But now, by the study of the monuments and the reading of the hieroglyphics in Egypt, and the excavations and the deciphering of the cuneiform characters in Assyria, we have found two civilizations much older than anything in Greece, enlightening us as to the origin of the arts, sciences and religion of the classic period.

Architecture is not a special creation, nor was it discovered in a night, like the last comet; nor has any style been the invention of any one man nor even of one generation, but each style has been evolved from what has gone before, under the influence of race traditions, the religion, the available building materials, and the requirements of the civilization; in short, what the zoologists call "the environment." Grecian architecture did not commence with such works as the Parthenon and the Erechtheum. Let us try to trace its origin.

First, who were the Greeks? Their language was Aryan, with but very slight admixture from other sources but their arts, their religion, and frequently their institutions, have a very different origin. This is one of those marked cases where archæology is of great assistance to the ethnologist (*Fergusson*). The ruins at Mycenæ help to solve the mystery. From them we learn that at the time of the Trojan war a people were supreme in Greece who were not Hellenes, but were closely allied to the Etruscans, and other tomb-building or art-loving races. They were known to the ancients as Pelasgi. They were Turanians, possibly mixed with the C It; they became more or less mixed with the Dorian, that is Aryan, races. This mingling of the races was not homogeneous throughout Greece. Sparta was pure Dorian or Aryan, and cared little for the arts, while in Athens the Pelasgi and the Dorians were so happily mingled as to produce the most artistic city the world has ever seen.

The religion of the Greeks was certainly not Aryan. The manlike character of their numerous gods, their belief in oracles, their worship of trees, etc., were Turanian (*Fergusson*). The most salient features of the architecture of a country are the temples and the palaces, but the hut and the dwelling existed before the palace and the temple, and often are of assistance in tracing the style, even when we work backward and deduce the hut and dwelling from the more important constructions. Viollet-Leduc concluded that the house of a Pelasgian peasant was like this:



House of Pelasgian Peasant. (Viollet-Leduc.)

The deeply indented coast and the numerous islands of the Mediterranean were very favorable to piracy, which we know to have been very common in early historical times, and

doubtless dated from times very remote. This necessitated that dwellings and villages near the coast should be protected by some defensive works. A Pelasgian noble or chief would select a naturally strong position for his house, and would build the entire structure of stone, which was very abundant.

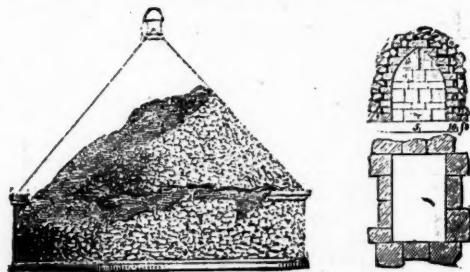
Tombs like these in construction exist at Mycenæ. We know that Darius copied his palace for his tomb, and Viollet-Leduc has all the probabilities in his favor in this reproduction of a Pelasgian dwelling. There are the remains of many ancient walls in Greece constructed in a very rude manner, called Cyclopien, supposed to have been built by the Cyclops, those gigantic sons of Neptune with one eye. These walls were evidently Pelasgian; moreover, Vitruvius describes this circular hut as the primitive habitation of this region.

These habitations are a long way off from the Parthenium.

Let us pass to Asia Minor, a country situated in the very center of the old world, with large water frontage, possessed of many excellent harbors, opening all the world to her commerce, and, we may say, to her piracy. The country was rich and flourishing at a very early period. We know, from the monuments in Egypt, what beautiful vases of gold and other rich tributes the inhabitants of Asia Minor brought and laid at the feet of Thothmes, and other early kings of the eighteenth Dynasty in Egypt, at least eighteen centuries before the Christian era.

Tombs and tumuli are scattered over the country.

Here we see the early hut erected in stone for a tomb.



Elevation and Plan of Tumulus of Tantalais. (Fergusson.)

Among others, on the plains of Troy, is the tomb of Achilles, with a chamber under which was discovered a small statue of Minerva seated in a chariot with four horses and a metal urn filled with ashes, charcoal and burnt bones. The urn now in possession of the Count de Choiseul is ornamented with a vine and grapes, done with exquisite art.

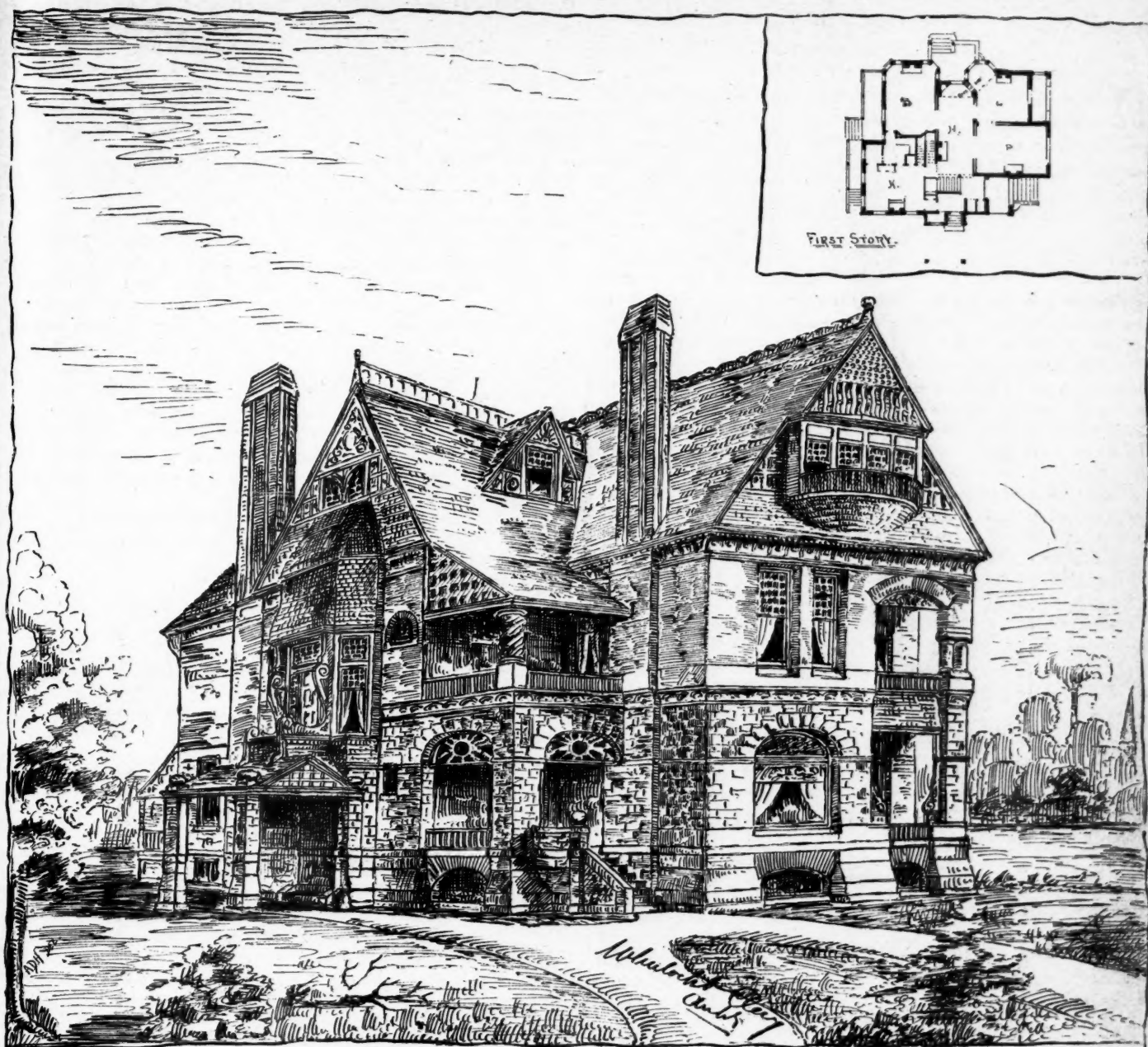
You are all familiar with the recent discoveries of Dr. Schliemann in this region, where were enacted those stirring scenes you find so grandly described in the Iliad.

One of the most interesting facts brought to light by Dr. Schliemann is that between the Ilium of Homer, rich in metals and the arts, and Ilium Novum. There were two cities on the mound of Hissarlik, one passing into ruins and covered with debris, on the top of which was built the second. These two cities were inhabited by a race ignorant of the use of metals, using only bone and stone implements. This alone is sufficient to upset the once fashionable Danish theory of the three ages—the stone, bronze and iron,—except in a very general sense, exposed to marked exceptions. In fact, men of the stone age exist today in isolated savage countries.

As Others See Us.

THE *Dubuque Herald* says: As the name indicates, the INLAND ARCHITECT AND BUILDER is devoted to the study of architecture, construction and decoration. The first number was issued last February, and it has in the short space of ten months grown into favor among those interested in this important industry and has attained a large circulation. Those interested, professionally or otherwise, in the planning, building or decorating of homes or commercial or public structures, will find this journal a help to them as well as entertaining. The best architects and builders in the West are contributors with pen and pencil. It is highly instructive in theory, practice and illustration. We notice that Mr. Hyde, of this city, is a frequent contributor, and in the October number is shown a fine perspective of the residence of J. H. Campbell, of Independence, planned by him, costing \$18,000.

THE new home for old ladies at Detroit, Mich., will be ready for occupancy about June 1. The building will be heated by steam and contain in all forty bedrooms. The dimensions are about ninety feet in length, fifty-six in width, and eighty-eight feet in height to the top of the tower. The entire cost will be about \$30,000, entirely defrayed by Mrs. Thompson, who also gave, when the home was first started some seven years ago, \$10,000, besides annual donations since.



A PROPOSED CITY RESIDENCE.—Wheelock & Clay, Architects.

A Criticism.

ARMISTON, Ala., December 20, 1883.

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

In your issue for December, page 144, illustrating a lecture of Prof. W. L. B. Jenney—No. 3, "Entrance to Assyrian Palace," I see a round arch with a very modern looking, evidently colored border, springing from the heads of the "Winged Bulls." I am aware that examples of the arch are known of anterior to Roman or Etrurian times, but in connection with Assyrian architecture, the arch is new to me, as it probably is to many of your readers who are not so conversant with archæology as Prof. Jenney. Will you therefore be kind enough to publish in your next issue the authorities for the use of the arch as given in the illustration referred to in connection with the winged bulls of Assyrian history?

Very respectfully,

JOHN MOSER, Archt.

N.B.—Please give the place where this combination exists or existed.

Below the engraving, "Entrance to Assyrian Palace," "From Viollet-Leduc" was written in Mr. Jenney's notes, and was accidentally omitted by the printer. It is to be found in "Habitations of Man," page 149. The original is a city gateway at Khorsabad, discovered by M. Place. A semicircular arch of eighteen feet span, supported by human-headed bulls, is adorned, on its face, with an archivolt of great beauty, formed of blue enameled bricks, with patterns of figures and stars of a warm yellow color relieved upon it. (See Fergusson, *History of Architecture*, second edition, page 175, for illustration and description.)

In same work, page 205, we find: "In his researches at Nimroud Leyard discovered vaulted drains and chambers below the northwest and southeast edifices, which were consequently as old as the eighth or ninth century before our era. They were both circular and pointed forms, and built apparently with great care and attention to the principals of the arch."

The semicircular arches which spanned the city gates of Khorsabad were "so perfect, both in construction and in the mode in which they were ornamented, as to prove that in the time of Sargon the arch was a well understood and usual building expedient, and one, consequently, which we may fairly assume to have been long in use."

It is remarkable that the announcement of these discoveries should have escaped the attention of our correspondent, whom we know as an enthusiast in architecture, a member of the institute, and one of the hardest workers in the profession. His familiarity with the Assyrian decorations that he terms "modern looking and evidently colored," recalls the criticism of Hamlet by a young student on seeing it for the first time, "Made up largely of familiar quotations."—[EDITOR INLAND ARCHITECT AND BUILDER.]

Our Illustrations.

Pages 156 and 157. Elevations, plans and details of a cheap cottage residence. By Architect T. T. Cramp, St. Paul.

Page 159, Dwelling by Architects Wheelock & Clay, for a prominent merchant of Chicago, to be erected the coming spring on Hyde Park avenue. The building will be constructed of Pennsylvania Serpentine stone to the top of second-story window sills, with fine pressed brick above, and red slate roof. As the interior finish has not been decided upon, the cost cannot be estimated.

The Art Guild Reception.

PAINTERS' NIGHT.

BY earnest work and judicious management the Art Guild has become the center of the arts in Chicago. This society, which has for its object the drawing together of kindred minds in informal association, tending toward the elevation of art, and a more intimate acquaintance among the artists on the one hand, and a wider influence and knowledge of the public taste on the other, have begun the present season by giving to the representatives of each profession an evening upon which to spread before their associates and the public examples of their work tending toward its better appreciation and advancement. In accordance with this new and better plan, the first evening of the season was given to the painters, whose unique invitation, designed by Mr. E. L. Field, from a scene painted in Normandy the past summer, notified the members of the Guild and their friends that the painters would hold their reception at the rooms of the Guild, in the Weber Music Hall, on the evening of December 21. The walls of the rooms were artistically hung with contributions from many prominent artists. Those of E. L. Field, Julius Rosenberg, John R. Kee, Frank C. Bromley, and L. C. Earle, being specially noticeable. There were no great paintings, bringing any one of the artists represented into prominence, but the sketches, by their variety of subjects illustrated the versatility of many of the artists, notably those of Mr. Earle, showing examples of animal, flower and landscape painting. Mr. Rosenberg has a distinctive style which runs through all his sketches, but he is always artistic, always harmonious, and chooses his subjects from among everyday incidents and scenes. Mr. E. L. Field's most noticeable painting represented a Norman peasant-girl seated under a tree among flowers and butterflies, pulling the petals of the blossoms—evidently some sweet Marguerette playing "He loves me, he loves me not." The attendance was all that could be desired. Among the guests were a number of prominent architects, and a large proportion of ladies who were the critics of the evening, showing not only an appreciation for, but a technical knowledge of the several merits of the contributions. The two most notable evenings of the season will be those of the architects and the decorators. A feature of the former will be an illustration in detail of the construction of a house from its conception to its completion.

An Art Exhibit.

The Chicago Art Institute gave its second annual exhibition on Saturday evening, the 12th inst., which was attended by over 1,000 persons, representing the wealth and refinement of the city. The collection of pictures was really superb, many of which are masterpieces and costly. The large majority of these are ordered in this city, and adorn the walls of many elegant homes. Where so much is exhibited that commands attention and admiration, it would seem invidious to particularize, and therefore details are omitted. The collection shows that American artists are well to the front, and the excellent showing by Chicago artists proves the Art Institute to be a grand success.

A Builders and Traders' Exchange.

THERE is certainly power and strength in concentration, and in this busy age there is unquestionably very much to be gained by bringing varied and extensive business interests toward a central point. When we reflect over it, it seems a little strange that up to the present time no effort has ever before been made to organize a Builders and Traders' Exchange in this city. Boston, Philadelphia, New York, Cincinnati and St. Louis, each have large and efficient organizations of this kind—organizations, too, which have risen rapidly to the first rank among the business institutions of the country, and which already exert a healthy influence on the trades they represent, and in every way possible promote their best interests. It was, therefore, a timely meeting called in the large hall on the second floor at the northeast corner of Washington street and Wabash avenue on the 9th inst. to consider the project and devise ways to form such an organization. Over one hundred builders, contractors and tradesmen assembled there at 2 o'clock P.M. Mr. George C. Prussing rapped the meeting to order, and said that the proposed exchange was a necessity to Chicago; the master masons had recognized this fact years ago, and opened their doors for the exhibit of masons' materials.

Mr. Marshall W. Carter was then chosen to preside over the deliberations, with Mr. Calloway for secretary. The chairman said: "Gentlemen, you should either drop this project today and never think of it again, or take hold of it in earnest and make it a success. Builders, furnishers, architects and property-owners all need it."

Some discussion followed, in which Mr. Prussing expressed his belief that 3,000 members would be a low estimate for such an institution in Chicago. Mr. Henry L. Gay said the rent of the hall would be \$6,000 a year, and the needful improvements would cost \$5,000, making a total of \$11,000 outlay the first year if they should choose so large a room. Senator George E. White suggested that they should temporarily become subscribers to the exchange, with the understanding that the membership fee for each firm shall not exceed \$25 a year. This suggestion was adopted, and embodied in the following resolution offered by Mr. Prussing:

WHEREAS, We recognize the importance of a Builders and Traders' Exchange to accommodate all persons engaged in the various building trades, and dealers in and manufacturers of building material, for the transaction of business with one another and with the architects of this city; and

WHEREAS, We believe in the establishment of such exchange under the same roof with the permanent exhibit of building appliances; therefore, be it

Resolved, That we, the undersigned, do hereby subscribe our firm names as members of the Builders and Traders' Exchange of Chicago, to be governed by such rules and by-laws as may be adopted at a subsequent meeting of the subscribers.

Upward of eighty members were secured, and the following gentlemen, representing various interests, were named as a committee to draft by-laws and report at the next meeting: H. C. Hoyt, George Tapper, J. P. Ketcham, George E. White, Jonathan Clark, John Tomlinson, William Chenoweth, William Wilson, James Johns, George C. Prussing and Architect W. L. B. Jenney. The above committee held a meeting on the 11th inst. at No. 10 Arcade Court, and arranged to carry out fully the instructions of the original meeting, meeting again on the 16th inst., to hear the report of the sub-committee, when a permanent organization was the result, and the Builders and Traders' Exchange, with a large and influential following, has become one of the really beneficial and permanent organizations of the city. This, to Chicago, gives what has so long been needed, a building headquarters, comprising all the different lines of building trades, a meeting-place for those interested in building, and which, connected as it is with the permanent exhibit of building materials, which has, through the efforts of its projector, Architect Henry Lord Gay, aided by the active cooperation of the building material men of all classes, become an assured success, is destined to grow and become a lasting good to the building interests of the entire West.

Architectural and Building Notes.

THE amount expended in building improvements at Northfield, Minn., in 1883, was \$70,000.

THE fine opera house block at Meadville, Penn., costing half a million dollars, was totally destroyed by fire on the 8th inst.

ARCHITECT S. S. BEMAN has taken permanent quarters at the Pullman Palace Car Co's office in this city.

A SCAFFOLDING on the third story of Conro's block, Milwaukee, fell January 8. John Dunn, contractor, was killed. Henry Hove and Cazeimer Kloptock, masons, were fatally injured.

THE plan for a new court-house at Greenville, Ill., was selected on the 7th inst. by the county board, out of twelve plans in competition. W. R. Parsons, a Quincy architect, was successful.

ARCHITECT J. J. EGAN is making contract for Ryan's Hotel, to be erected in St. Paul, Minn., as soon as the weather will permit, to cost in the neighborhood of \$1,000,000.

MESSRS. HEALY & MILLET, the stained glass artists, have recently contracted for the stained-glass and pillar decorations for the Church of the Nativity, of Chicago. The decorations will cost \$2,000.

THE American Stone Manufacturing Company is a company recently organized for the production of artificial marble and granite. They display at their office some excellent samples of imitation stones and marbles.

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

SENATOR HILL has introduced a bill to require that a government building be constructed in every city and town of the Union in which the postmaster draws a salary of one thousand dollars and over. Hill says that this policy would save the government one million dollars per year rent.

THE INLAND ARCHITECT AND BUILDER is a magnificent specimen of typographical skill and editorial ability. It is a monthly journal devoted to the Western interests of architecture, building and decoration, and is a credit to the profession, as well as to journalism, and its publishers the Inland Publishing Company.—*Joliet Daily Press*.

THE Durham House Drainage Co. have donated the skilled labor required in placing the plumbing and gas-fitting in the new Manual Training School. This company, whose system of house drainage is becoming very popular, are placing their iron drainage in the Board of Trade, the Western Indiana railway depot in Chicago, and the West Hotel under construction in Minneapolis.

THE Kewanee Firemen will give their tenth annual reception in Library hall of that city on the evening of the 25th inst. It is understood that this company, who are said to be one of the finest in the state, are making considerable preparation for this event, and it displays a commendable spirit of enterprise in the business men of Kewanee in thus supporting a first-class fire company for the protection of their manufacturing and private interests.

ARCHITECT J. H. HUBER has made plans and is now superintending the construction of a flat-building on Park avenue, west of Robey, for Mr. John W. Ela, the attorney. The building will be 40 by 70 feet, three stories and basement high, and will have an Anderson pressed-brick front trimmed with terra-cotta. The halls will be lighted by windows with cathedral glass, and there will be transoms of the same material over the front windows. The outside stairways will lead to Eastlake porches, and the halls will have floors of tile. Complete, the building will cost \$16,000.

THE annual meeting of the Architectural Association of Minnesota, was held in St. Paul on the 8th inst. The election of officers for the ensuing year resulted: President, Isaac Hodgson; vice-president, D. W. Millard; secretary, H. S. Treherne; treasurer, G. W. Stevens. All are

residents of St. Paul excepting Mr. Hodgson, who lives in Minneapolis. After the election, E. P. Bassford, the retiring president, read his annual address. The next meeting of the association will be held in Minneapolis on the first Tuesday in February.

JEAN BAPTISTE CICERON LE SUEUR is dead in Paris. This celebrated French architect was born near Rambouillet, October 5, 1794. He won the Roman prize at the school of fine arts in 1819, and spent several years in Italy. Returning to Paris, he designed the parish church of Vincennes, in 1828-30, and subsequently was associated with Godde in enlarging the Hôtel de Ville. In 1846 he was admitted to the institute, and in 1852 became professor in the school of fine arts. In 1857 he completed the conservatory of music at Geneva. He has written, among other works, *Cronologie des Rois d'Égypte*, which received an academical prize in 1846, and was published at the expense of the government in 1848.

ARCHITECT GEORGE A. MASTERS has completed the reconstruction of the Lyceum theatre, which was recently destroyed by fire, at a cost of \$41,000. The reconstruction gave an opportunity for the introduction of several novel and valuable features in theatre construction, and creditable to Mr. Masters as a theatre architect. The decorations of the theatre will not be completed till the end of the season, when a St. Louis decorator will give it an interior that will compare favorably with any of Chicago's places of amusement. Messrs. McGraw & Downey, the owners of the property, have displayed a laudable enterprise in immediately rebuilding this theatre, and placing it on a par with the two other first-class places of amusement the west side is now in possession of.

ARCHITECT GREGORY VIGEANT has drawn plans for a new church for the First Presbyterian Society, of Fort Wayne, Ind., that, when completed, will be among the best church edifices in the state. It will be 136 by 110 feet, and will have a main auditorium with a seating capacity of 700. There will also be a lecture-hall capable of accommodating 200 persons. The Sunday-school department will be two stories in height. The structure will be Gothic in style, and will have outer walls of rock-faced ashlar. Complete, the structure will cost about \$50,000. Mr. Vigeant has also plans for two two-story and cellar stone-front houses for Jacob Roth, on Warren avenue, near Wood street; also two two-story stores and dwellings for M. A. Devine, to be erected at Ravenswood.

AT the recent annual meeting of the Master Masons' Exchange, Joseph Downey, the well known mason contractor, was elected president, Wm. E. Tapper, Jr., secretary, and E. Gobel, treasurer. Mr. Downey is one of the best known, enterprising and honored of Chicago masons, and in honoring him with the chief office the exchange have done themselves a permanent good, and it assures them a successful and flourishing existence for 1884, as its many affairs will be managed with the precision and safety that is characteristic of the brick walls laid under Mr. Downey's supervision. The treasurer is also an old Chicago contractor, and the secretary, as the son of one of the old master builders who have helped to make the city what it is, is for this reason as well as for his own acknowledged worth, a fit man for the office. Mr. George C. Prussing, the ex-secretary, whose almost individual labors carried the association through the long strike of last spring, and to whom the citizens of Chicago owe so much, will still be active in the affairs of the Master Masons' Association.

ARCHITECTS BURNHAM & ROOT are constructing two residences at the corner of Forty-seventh street and Woodlawn avenue, which are a wide departure from any residences yet erected in Chicago. They are for Robert Strahorn, Esq., and F. R. Baker, Esq. They are the very ultra of old Elizabethan in construction—the first story being constructed entirely of timbers and strucco, and the second story walls are covered with California redwood shingles. The cost of the two houses will be about \$50,000. These architects have also prepared plans for a ten-story office building for J. Q. Adams, to be located on the corner of the alley on Dearborn street, between Madison and Washington streets. It will have a frontage of forty feet, and a depth of ninety, and will cost in the neighborhood of \$150,000. The plans have been ready since December 1st, upon which date Mr. Adams went abroad, and the work of excavation and erection will commence immediately upon his return. This improvement will give to this favorite part of the city another model office building.

A TOTAL of \$700,000 has already been expended on the great West hotel, in Minneapolis, Minn. Of this amount there was expended for real estate \$45,000, and for excavating and foundation \$80,000. The excavating was done by F. L. Balch, the stone foundation walls were laid by J. Baxter, and the brickwork by J. Marble. The fireproofing which is in the hands of the Ottawa Fireproofing Co., of Chicago, will be finished in thirty or forty days, and it is expected to have the plastering nearly completed by February 15. Since the corner-stone was laid there have been two hundred and thirty-seven working days, but as ninety-four days were lost, work was actually pushed only on one hundred and forty-three days. There has been used, in the construction, \$98,000 worth of stone and \$95,000 worth of iron; 11,200,000 common brick and 580,000 red pressed brick have been laid, and 2,150,000 feet of lumber have been used. The building is 174 feet by 196 feet, and eight stories high, with a basement 16 feet in height. From the sidewalk to the top of the main roof the distance is 138 feet, 143 feet to the top of the chimney, and 200 feet to the top of the tower. The exchange is 70 by 90 feet. The billiard and bar room is 50 by 125 feet.

ARCHITECT M. L. BEERS has just completed a handsome residence for Dr. W. H. D. Lewis, on Fifty-third street, near Madison avenue; the building is Queen Anne style, 40 by 31, two-stories, cellar and attic high; first story is of brick veneer, second story and above that, including dormers and roofs, to be covered with black slate; the windows are of fine plate and ornamental stained glass; the interior is finished in Georgia pine, put together with cabinet work; there is a large reception hall, furnished with a handsome wood mantel and an ornamental screen with seats connecting them; on the other side of the hall is an alcove, also furnished

with seats and screen. Dr. Lewis is sparing no expense to make his house complete with all modern improvements, including steam heating, electric gas-lighting apparatus, and electric call-bells, etc.; cost, complete, about \$7,000. Also in course of erection, three-story and basement residence, 25 by 62 front, of Lake Superior rock-faced brownstone, red slate mansard roof, interior finished with Georgia pine and gumwood, with all modern improvements, for Mrs. B. I. McVoy, to cost about \$12,000. Also flats for Washingtonian Home, at 297 West Polk street, to cost \$4,200, and a residence for W. B. Titus, of Ottawa, Ill., to cost \$10,000.

THE building of the Standard theatre, corner of Jackson and Halsted streets, which was opened to the public December 31, gives to the people of the west side a house that in appointments and decoration can hardly be excelled. The management have a house in which none but first-class performances should be admitted, and it is for this purpose that the theatre has been built. The decorations were executed by Almini, and as a study in Japanese fresco work merit the highest praise. The scenic artists, Messrs. Sosman & Landis, have placed upon the stage a setting equally laudable. The lighting by the Hickey is one of the special features; this burner, being a combination of the best known principles in gaslighting, has already been introduced into a large proportion of the theatres from New York to Denver. One special feature of the interior arrangement is the peculiar shape of the gallery front. It is similar to that of the Casino in New York, and gives an effect as well as a perspective vastly superior to that of the old stereotyped horse-shoe curve. Its front is composed of galvanized iron in design especially made for this theatre, and was executed by the firm of R. E. Dewey & Co., in a most satisfactory manner, as well as on an extremely brief notice. The design of the proscenium arch is executed in carved wood and stucco. It is understood the credit of this, with many of the ornamental and constructive features introduced, is due to Mr. E. E. Snyder, who as the architect's foreman had charge of the work, and has shown an intelligent conception of architectural forms and considerable ability as a designer.

ARCHITECT W. L. B. JENNEY is at present engaged upon the remodeling of the "Tobey Building," situated on corner of State and Jackson streets, owned by Mr. L. Z. Leiter, and formerly used for a furniture warehouse. The beginning of remodeling was the transformation of the old warehouse into an elegant office block, at a cost of some eighty thousand dollars. A very handsome feature of the new block is that from the entrance on State street to the top of the sixth story the walls are painted a soft, delightful terra-cotta color, which is most durable and very pleasing to the eye. The entrance-way displays an elegant showing of some American tile work. Besides this work, which is now completed, Mr. Jenney is about to begin work on the entire first story of the building, making of it a very elegant store, to be occupied by special tenants as soon as completed. The State street and Jackson street fronts are to be fine plate and stained glass. All of the old stone panelings are to be removed, making the whole of both fronts into one grand show window, the top of which is to be of stained glass in very handsome designs. The doorways are also quite unique, the openings being but about eight feet high, and above that is to be a gorgeous display of colored glass. This is undoubtedly the most important improvement in this part of the city in some time, and is in keeping with other steps southward, which our business houses are rapidly taking. Mr. Jenney says, "considering the time of the year, and the general depression of business, the outlook in building operations in this city for the coming year is remarkably good." This architect also has plans for a house and stable for Lidia C. Johnston, to be started as soon as weather will permit.

ARCHITECTS TREAT & FOLTZ have completed the plans for the new Episcopal Theological Seminary to be erected on Washington boulevard, near California Avenue, that will probably be accepted by the board of managers of the seminary. The plat of ground upon which the buildings will be erected has a frontage of 201 feet on the boulevard and runs north 214 feet to Park avenue. Upon this will be placed two separate buildings. A dormitory building, 33 by 80 feet in size, four stories high, divided into four sitting-rooms on each floor, each of which will accommodate two bedrooms. Running through this building from east to west will be a fire-wall of brick. The arrangement will be for thirty-two students' bedrooms with sitting-rooms, 16 by 14 feet, and bedrooms, 13 by 9 feet, all thoroughly ventilated and furnished with all conveniences. The main building will be 106 by 56 feet in size and three stories and basement in height. In the basement will be the kitchen, pantries, laundry, matron's room, fuel and store rooms and janitor's apartments. On the main floor will be a students' dining-room, 19 by 33 feet in size, connecting with the pantry and the professors' dining-room, 16 by 20 feet. Left of the main entrance will be a reception-room, 15 by 20 feet, and on the right of the entrance the dean's room, 16 by 20 feet. Opposite will be the main stairway, nine feet wide, and to the right of this stairway will be a general sitting-room, 20 by 26 feet. To the right of the main entrance will be the students' stairway. This will lead to the second story, in which will be the four lecture-rooms and library. To the right of the students' stairway will be a chapel, 24 by 42 feet, a school-room for preparatory students adjoining. These will be so arranged as to be accessible both from the outside as well as the main corridor. In the second story will be the library, 19 by 32 feet. The rest of the second floor will contain two suites for unmarried professors, with sitting-rooms, 15 by 20, and bedrooms, 10 by 15 feet, with necessary closets. These will be separated from the students' stairway by a glass door. The top floor of the building will be arranged so as to accommodate several additional students. The walls of the building will be of the best quality of pressed brick, with terra-cotta trimmings. The style will be English collegiate, and will be quite attractive. It is expected work on the buildings will be begun early in the spring. It is quite likely the board will arrange for the construction at an early date of six nice dwellings for professors on the college grounds. The plans now drawn contemplate the expenditure of \$75,000.

New Publications.

SHEPARD & JOHNSTON'S ANNUAL for the year 1884. Chicago: 140 to 146 Monroe street.

This is one of the neatest publications of the year, handsomely printed, beautifully illustrated, and in keeping with all the work turned out by this well known and enterprising firm of job printers and publishers. Send for a copy.

JOURNAL OF THE SOCIETY OF ARTS. London: Published for the Society by GEORGE BELL & SONS, York street, Covent Garden.

This is a weekly publication, and its name indicates its purpose. The issue of December 14 is accompanied by a fine portrait of the late Sir William Siemens, D.C.L., LL.D., F.R.S., etc., which is from a photograph taken by Vander Weyde, on June 12, 1882. The reproduction is the work of the American and Continental Engraving Company, Munich. The *Journal* is well conducted and possesses many features of interest.

THE CALIFORNIA ARCHITECT, now in the sixth year of its publication, is offering three cash premiums and one a box of drawing instruments for the best plans and perspective of a house to cost \$5,000, the drawing to be in the hands of the awarding committee, appointed from the San Francisco chapter of the American Institute of Architects, before the first day of May next. The plans are to be sent to the office of the *California Architect*. The committee consists of Architects G. H. Sanders, Albert Pissis and H. D. Mitchell. This journal is making an earnest effort to creditably promote the interests of the architects and builders of the Pacific slope, and deserves due recognition and success.

SUGGESTIONS ON LIBRARY ARCHITECTURE, AMERICAN AND FOREIGN, with an examination of Mr. Wm. F. Poole's scheme for Library Buildings. By J. L. SMITHMEYER, Associate in American Institute for Architects, Washington, D. C.

This is a pamphlet of thirty-one pages, and owes its origin to the inception of the Congressional Library enterprise, by act of Congress, May 3, 1873, and also a subsequent act passed June 8, 1880. There was large competition among architects and a great many plans were submitted to the commission appointed for its approval, the award for the best plan under each act being given to the author of this work. The whole subject of public libraries is discussed by Mr. Smithmeyer, and Mr. Wm. F. Poole's scheme for library buildings is searchingly reviewed, which gives the pamphlet a local interest here where Mr. Poole is so well known as at the head of our public library.

SOME OTHER FOLKS. By S. P. McLEAN, author of "Cape Cod Folks," and uniform with the same. Published by CUPPLES, UPHAM & COMPANY, Boston. 1 vol., 12mo, cloth, \$1.50.

The author in this book, which is just issued, sees *further and clearer* than she saw in her earlier books; she has stepped, as it were, out of the limits of her former thought and action into the center of the world's full, rich life—from the particular she has passed to the universal in human experience. The characters stand out clear, definite, real, as is only the case when an artist has not merely familiarized himself to their outward aspects and characteristics, but become at home in their inner world of thought, aspiration, passion, resolve, hope and love. It is to be hoped that this book will not only be given the warm welcome accorded "Cape Cod Folks," but will reach a wider field and exercise a broader influence upon readers everywhere.

HARDWARE TRADE CATALOGUE FOR 1884. KELLOGG, JOHNSON & BLISS, Chicago.

The illustrated and descriptive catalogue of hardware supplied to the trade by Messrs. Kellogg, Johnson & Bliss, the Chicago hardware dealers, is especially designed to assist merchants and all classes of consumers in selecting at their convenience such articles as they may require. It is designed for permanent reference and its illustrations show a vast array of standard salable goods, from which selections can be made in the general building and house-furnishing lines; also all kinds of mechanics' tools and cutlery. With this volume in hand (which will be sent free upon application) the interior dealer can do the great bulk of his purchasing by mail just as well as by making a personal inspection of the goods, and will be dealt with by this firm just as fairly as if he were present in person to select his purchases.

BUILDING SUPERINTENDENCE: a Manual for Young Architects, Students, and others interested in Building Operations as carried on at the present day. By T. M. CLARK, Fellow of the American Institute of Architects. Boston: JAMES R. OSGOOD & Co., 1884.

The above is the title of a handsome volume of some 330 pages, bound substantially in muslin, containing a large number of cuts, and, disclaiming to be a treatise on the architectural art, or the science of construction, is a simple exposition of the ordinary practice of building in this country. The book is especially written for the benefit of, and will prove a valuable aid to, the younger members of the architectural profession who are occasionally called upon to direct building operations; and for the work in question they will certainly thank the author for the very thorough and masterly manner in which he has performed his work. Every subject which can in any possible way be applied to, or is a part of Building Superintendence, is thoroughly treated in this work. The progress of a typical building is fully described, from the first breaking of ground to the completion of the work, showing the successive stages of construction and the order of the delivery of material on the ground, such as they would be found by the superintendent in his periodical visits. In the chapters of this book he has treated of all the different kinds of work, and presents a standard by which each sort can be judged. He takes the young architect by the hand, as it were, and goes with him over the whole architectural ground in detail, and nothing whatever seems to escape notice. He is pointed out the many ways in which defective materials or construction are covered up, and is reminded to work before the building arrives at so advanced a stage that it can no longer be detected or remedied. Contracts

is the subject of a chapter, and a form of contract for building is given. We commend this work to the student and young beginners in architecture as one which will prove of value to them in the prosecution of their complex studies. Price \$3. For sale by JANSEN, MCCLURG & Co., Chicago, Ill.

Synopsis of Building News.

Chicago.—Architect L. B. Dixon, formerly of Dixon & Townsend, reports the following: A two-story villa, 26 by 55 feet, for Mr. J. A. Lane, in process of erection on Greenwood avenue, between Forty-eighth and Forty-ninth streets, to cost when completed, \$7,000. Just started a two-story Gothic residence, 30 by 64 feet, all modern improvements, for Mr. Geo. Driggs, situated on Cornell avenue between Fifty-fourth and Fifty-fifth streets, to cost \$7,500. Also two flats for J. L. Woodward on Thirty-third street near the lake, Anderson pressed brick front, with stone trimming, cost \$15,000. Also a residence 25 by 72 feet, two stories and basement high, front of Pennsylvania greenstone, plate and stained glass windows for Mr. J. W. Knight, on Michigan avenue near Sixteenth street, to cost \$12,500. Also a residence on Forest avenue near Thirty-first street, 25 by 68 feet, three stories high, front of pressed brick with brownstone trimmings, finished with hardwood, cost \$13,000. Also a residence for Mr. W. A. Stevens on Wabash avenue near Twenty-sixth street. Residence for Mr. M. Mainard, Wabash avenue near Thirty-third street, and a residence for Mr. John Westervelt, on Wabash avenue near Fifty-fourth street, for which plans are not completed.

Cincinnati, Ohio.—Architect Lucian F. Plympton: For Elijah Coombe, two three-story double houses, walls of southern Ohio brick, slate roofs, 71 by 45 feet, cost \$10,000 each; under way: Douglass, contractor. For Frederick Hassaureck, three-story residence, walls of Indiana limestone, pitched face for first floor, second floor, brick plastered on exterior, slate roof, area 65 by 65 feet, cost \$30,000 (projected).

Des Moines, Ia.—The present condition of the building trade is slow to fair, with the outlook for the coming year promising.

Architect B. Schreiner: For Baker & Patter, three stores, brick, with stone trimmings, 60 by 110 feet, cost \$20,000; I. Barley, brickwork, and J. Garrety, carpenter. For L. Hast, two stores, brick, with stone trimming, 20 by 80 feet, cost \$4,000; I. Barley, brickwork; E. Baker, carpenter. The above stores are completed. For J. E. Cochran, two stores, brick, with stone trimming, 46 by 38 feet, cost \$5,000; under way: I. Barley, brickwork; C. VanHorn, carpenter; under way. For L. P. Miller, three stores, brick, with stone trimming, 44 by 60 feet, cost \$10,000; completed: Stradley & Larson, contractors; W. McNulty, carpenter. For M. H. King, two stores, frame, cost \$3,500; nearly completed: Wm. Christy, Jr., builder. For T. L. Smith, two stores, frame, cost \$2,000; completed: O. Oleson, builder. For F. Stehn, two stores, frame, cost \$3,000; completed: J. A. Carlson, builder. For W. D. Christy, two stores, frame, 16 by 26 feet and 36 by 52 feet, cost \$2,000; under way. For J. W. Barker, two houses, additions, 26 by 30 feet, cost \$2,500; completed: J. Garrety, builder. For Lee Township School District, two-story brick, shingle roof, 26 by 32 feet, cost \$4,500; completed: J. A. Carlson, builder. For Mattes Bros., three-story brick, 84 by 132 feet, cost \$75,000; projected. For S. J. Hesler, three-story brick, 60 by 80 feet, cost \$6,000; projected. For John Huglin, three-story brick, 40 by 75 feet, cost \$5,000; projected.

Prices of labor at Des Moines, Ia., range as follows: Bricklayers, \$2.50 to \$4; carpenters, \$2.50 to \$3.50; gasfitters, \$2.50 to \$3; laborers, \$1.50 to \$1.75; painters, \$3 to \$4; plasterers, ditto; plumbers, ditto; stonemasons, \$2.50 to \$4; stonecutters, \$3; stone-setters, \$3; roofers (tin), \$1.75 to \$2.25; slaters, \$3 to \$5; stairbuilders and steam fitters, \$2.50 to \$3, and \$3 to \$4 respectively.

Dubuque, Ia.—The building prospects for the ensuing year are good, although but little work as yet is placed in the hands of the architects.

Architect F. D. Hyde: For Dr. Howe, Dubuque, four-story brick store, pressed brick front, 22 by 114 feet, cost \$8,000; foundation in but contract not let yet. For Dr. Morton, Iowa Falls, Ia., two-story frame cottage, cost \$2,500; architect is now preparing the plans. For W. S. Bradley, Dubuque, addition to business block, brick, three stories, 22 by 52 feet, cost \$4,000; architect preparing plans.

Marion, O.—The contract for the construction of the new court-house at Marion, O., was let on the 7th inst. to Leffler & Bland of that place, for the sum of \$98,990. The iron work goes to the Canton Bridge Co.; the roofing and galvanized iron to S. & F. R. Saiter, of Marion; stone work to a Toledo firm, and the painting and plastering to parties here. Leffler & Bland are the same firm who were awarded the contract one year ago, but which was subsequently set aside by the Supreme Court, in consequence of lower bidders' dissatisfaction. This time there appears to be harmony, and the building will, doubtless, be commenced early in the spring.

Minneapolis, Minn.—The record of building operations at Minneapolis for the past year exceeds all previous records. The feature of the year's growth has undoubtedly been the number of residences erected, and the uncommonly large number of brick and frame stores, outside the fire limits, along main avenues of trade, and in outlying sections of the city. It has not been without important additions, however, to the business structures in the heart of the city; and the future now points to the growth in this direction. There promises to be fewer small buildings, and more large and substantial ones constructed in the future. The following is a comparative statement of what has been accomplished in building during the year 1883.

	1883.	1882.
Number of stores built.....	590	308
Number of residences.....	2,539	1,847
Expenditure for dwellings.....	\$5,035,706	\$3,529,375
Expenditure for stores.....	3,152,075	2,294,000
Expenditures for miscellaneous buildings.....	834,300	2,201,700
Aggregate expenditure.....	9,390,450	8,375,075

The amount expended on the construction of 255 brick stores was \$2,600,000, and on 355 frame business blocks, \$531,450. The amount to be expended on brick business blocks and public buildings now planned, or upon which work is being done during 1884, is estimated at \$2,987,000, which will give a grand total of \$12,277,450. The work in hand at the present time includes the following more important structures at a cost of \$100,000 and upward, and all of which will be completed during the present year:

West hotel, next year.....	500,000
Tribune building, Fourth and First avenues.....	400,000
Hennepin avenue office building.....	250,000
Union depot.....	200,000
Government building.....	200,000
Chicago, Milwaukee & St. Paul elevator.....	200,000
Northern Pacific elevator and building.....	300,000
Minneapolis Elevator company, elevator.....	200,000
C. St. P. M. & O., elevator.....	200,000
Loan and Trust company, Nicollet avenue.....	100,000

Minneapolis is evidently one of the most progressive cities in the Northwest.

St. Louis, Mo.—The following permits were taken out on the 11th inst.: For Dr. J. H. McLean, to rebuild his stores and factory at Broadway and Biddle, cost \$50,000. For John A. McKeighen, dwelling on Pine street, between Cabanne and Vandeventer avenues, cost \$10,000. For Camp Spring Milling Company, an addition, cost \$5,000. For Simeon Ray, three dwellings on Delmar avenue, between Cabanne and Vandeventer avenues, cost \$5,000 each. For Dr. S. C. Van Houten, two dwellings on Delmar avenue, between Cabanne and Vandeventer avenues, cost \$5,500 each. For James A. Gregory, stone foundation for two dwellings on Morgan street, between Channing and Ware avenues, cost \$1,500. Total, \$92,000.

THE important subject of sewer-gas traps is agitated by almost every sanitary authority, and is continually receiving attention from inventive minds bent upon devising some adequate preventive of sewer gas. The latest and one of the most practical methods is a "metallic bar," otherwise a deposit of mercury through which the water must pass, as it is too heavy to be syphoned out or dry up. A. Edwards & Co., of New York, claim for it extraordinary merits.

