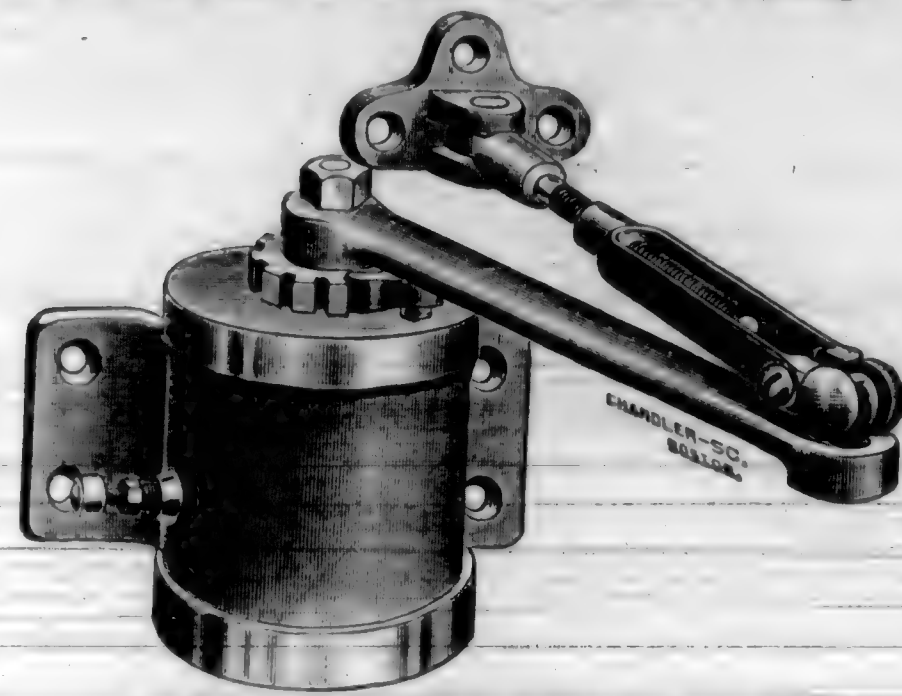


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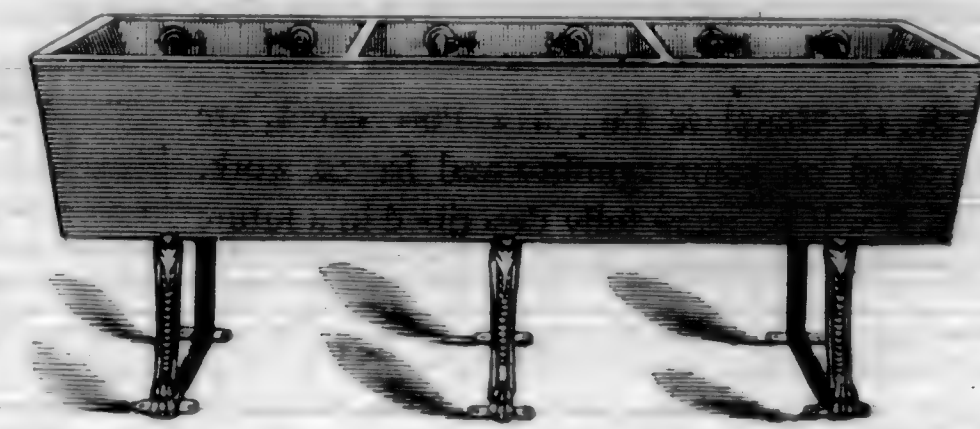
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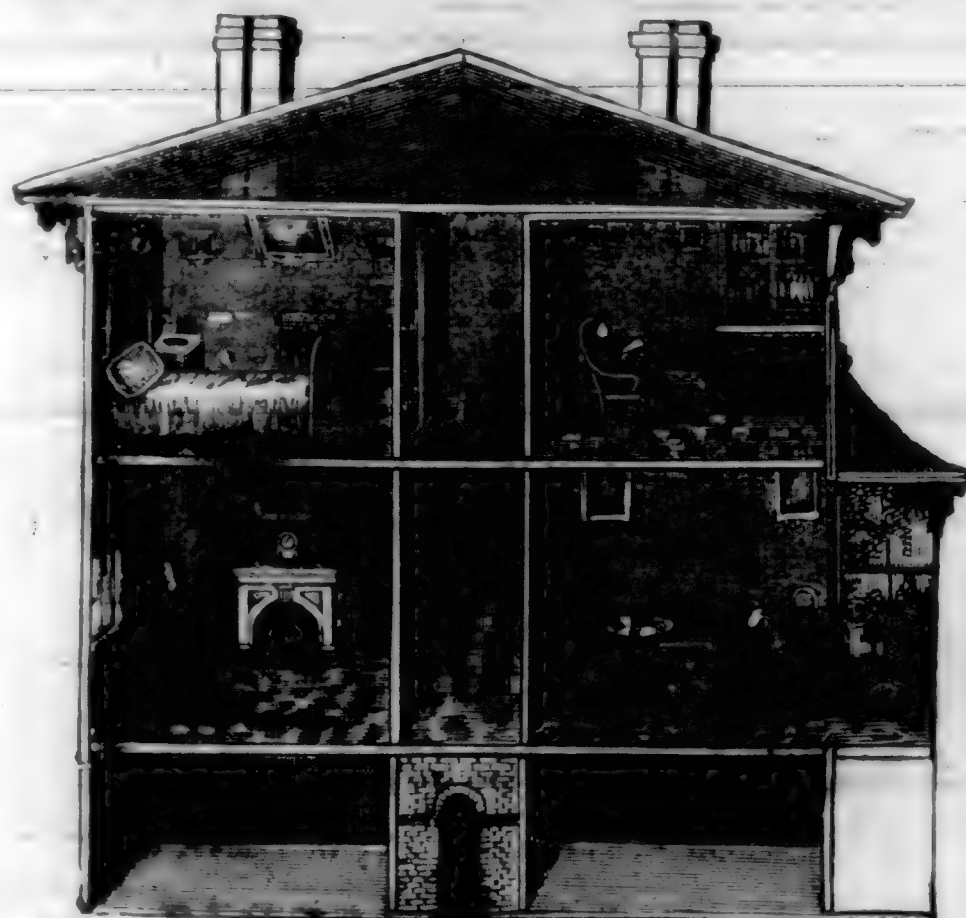
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NOTICE.

M. R. George H. Wolfe, having no further connection with the business of this journal, correspondents will in future address their communications to the *California Architect and Building News*, 408 California street, San Francisco, Cal.

NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE ARCHITECTS, meets second Friday of each month at 408 California Street.

SETH BABSON, Pres. W. P. MOORE, Vice-Pres.
OLIVER EVERETT, Sec. JOHN W. CURTISS, Treas.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at 408 California Street.

JOHN RICHARDS, Pres. PROF. FRANK SOULÉ, Vice-Pres.
OTTO VON GELDERN, Sec. JAS. SPIERS, Treas.

SAN FRANCISCO CHAPTER, A. I. A.

The regular meeting of the Chapter was held July 11, President S. Babson in the chair and H. T. Bestor, Secretary *pro tem*.

After reading of minutes and the usual routine of business had been finished, the President introduced Mr. Cuthbertson who interested his audience by the reading of a paper entitled *The Scroll, the Star and the City*.

The paper was replete with fresh thought and originality, and was listened to with marked attention. On motion it was ordered printed in the next issue of the CALIFORNIA ARCHITECT.

The committee to whom was referred the *Sketch Club* competition for gates reported:

S. C. Benson, first mention; H. J. Van Black, second; J. N. Rowell, third; C. A. Meussdorffer, fourth; and Max Rosenberg, fifth mention.

Drawing of the July competition for a hall clock was then opened for inspection and referred to a committee to report at the next regular meeting.

H. G. Lowry was elected as a student member.

A. I. A. SKETCH CLUB.

REGULAR meeting of the A. I. A. Sketch Club held July 10, 1890. Applications of Mr. C. E. M. Hubbell and Herbert G. Lowry for membership were received and referred to the Investigation Committee.

Four designs were submitted in competition from the members, the subject being a *Hall Clock*. The competition for August to be a *Country Chapel*, seating capacity 150; scale, 1/8 inch to 1 foot. General conditions required. Plan, elevation and perspective, on sheets 15x24, rendered in pen and ink.

The Club is about to form classes for water color painting and modelling.

THE regular monthly meeting of the Technical Society of the Pacific Coast was held Wednesday evening July 9th. A paper on open channels was presented by P. J. Flynn, C. E.

B. McIntire, C. E. who is at present connected with the Vulcan Iron Works of this city, read a paper on Ropeway Construction. The ropeway described and illustrated was for the conveyance of freight for a mine in Mexico. The line was about two miles long with a fall of about fifteen hundred feet to the mile, the load being conveyed to the lower end and worked by gravity.

LEGAL INFORMATION.

With the present issue under the heading of Court Decisions, we commence furnishing our readers with abstracts from decisions rendered by the Supreme Courts of the different States, selecting such as may have special reference to the building interest on this coast.

As there are many parallel cases constantly arising in all parts of the country, the knowledge of such decisions may lighten the burden of care that often weighs heavily upon the busy architect, contractor or investor, and may assist him in shunning complications that may arise in his business relations.

THE promised *grand exposé* of rotten work in the New City Hall walls, in place of developing into the big scandal the daily papers have endeavored to make of it, has collapsed into a comparatively insignificant affair. Experts calculate that the contractors would have profited to the extent of one hundred dollars, had the poor filling not been detected and replaced with solid masonry. As the contract amounts to over eighty thousand dollars, it will be seen that the fraud does not compare in magnitude with what the public had been lead to expect, though the consequences might have been disastrous had it not been discovered.

The matter is now passing from public attention, and will soon be forgotten. We would like, however, to say a word about the injustice of one of the commissioners, who endeavored, at a meeting of the Board, to saddle on the architect the blame for not detecting the inferior work when it was being done.

To begin with, an architect's duties are many and various; he must be capable of conceiving and designing a complicated structure, of combining the various qualities of usefulness, fitness and economy into a perfect whole, he must have the faculty of so expressing his thoughts, that his drawings and specifications are as clearly understood by the workman as by himself, so that the work of each mechanic shall fit into the work of every other mechanic, as one stone fits into a mosaic, and becomes a part of the whole design. He must so handle his materials that no portion of the building be needlessly strong, to entail needless expense; neither should he err on the other side, lest his work lack the necessary stability. He must exercise a general control over the entire work, see that it progresses smoothly and harmoniously and without needless delays, must hold himself in readiness for consultation with his clients, and render decisions on a thousand and one subjects; how many, few but an architect can realize.

Now it is obvious that any man, endeavoring conscientiously to fulfill these numerous duties, cannot give his entire time to one, except by entirely neglecting the rest; for this reason, it is clearly and distinctly provided in the schedule of charges and definition of an architect's duties, adopted by the American Institute of Architects, that in all works of importance where the services and personal attention of a superintendent are required at all times, that such a superintendent or *clerk of works* shall be appointed, subject to the approval of the architect. It is the duty of such a person to be the right hand of an architect, to understand his work, and see that his orders are obeyed.

The case at our City Hall is a point in question; the architect, not being able to devote his whole time exclusively to superintending the details of construction, (which properly belongs to the foreman and the superintendent) trusted, as he had a right to do, to the faithfulness of the superintendent, and the architect was entirely justified in relying on the vigilance of the man whose sole duty was to see to the proper performance of the work. If a man devoting his entire time to watching the mechanics, could be imposed on, how could the blame for it be justly thrown upon the architect? We maintain that it would be quite as consistent to accuse the commissioner of direlection of duty, as for him to accuse the architect.

The Commissioner in question is paid by the city to see that it is not swindled; it is through no vigilance of the Commissioner that the city has escaped being swindled.

It is astonishing in what different lights an architect is regarded, before being engaged, and when carrying out his duties; in the former case a client thinks that all he has to do is to make a few drawings and write a little description of them; in the latter case, he must be infallible, must not make a slip, must not omit to mention every nail, must settle disputes between unreasonable beings to satisfy both parties, must be professor, lawyer and judge, and to crown all, a detective skillful enough to discover every defect that a dishonest contractor or workman may use every effort to conceal!

BRICK pavements for streets of cities and towns have many good qualities to recommend them to consideration. In this city some years ago, a system of brick paving was tried which seemed to promise superior results. As then put down, the brick were dipped in hot asphaltum and set on edge over a layer of sand. It seems as if an improved pavement could be made by this system in connection with other late improvements. Such, for instance, as a heavy bed of concrete, overlaid with bricks set in either cement or asphaltum; and in the outlying streets having light travel the upper surface could be coated with asphaltum.

Recent improvements in the manufacture of bricks, whereby various chemical substances are introduced in a manner to form soft, hard, very hard, or colored bricks suitable for any purpose intended renders it a comparatively easy matter for the manufacturer to furnish paving bricks of any degree of hardness or of any form desired. We believe it would be well for interested parties to look into this matter thoroughly, as brick or tile is destined to be the coming pavement in the near future.

THE SCROLL, THE STAR AND THE CITY.

A paper read before the San Francisco Chapter of the American Institute of Architects, Friday evening, July 11th, 1890, by W. J. Cuthbertson.

It seems to me that an architect's life is not one adapted to lend aid to the getting up of a good logical and well arranged paper. So many well ordered and methodical arrangements have to be made all the time by him in properly conducting his profession in its multifarious branches and ramifications, that when it comes to doing that which is not absolutely necessary for its proper conduct, he feels, if I may judge from my own case, like I should imagine a lemon feels when squeezed of all its juice—squeezed of all the method and rules in him.

Naturally then one feels like taking a reckless plunge from the hard and fast methods of ones professional life and revelling in artistic literary abandon. This may account for the unsequentiality of this paper and the ramblingness of its remarks and thoughts.

I think myself peculiarly happy in being permitted to address the architects and through them and their organ, the citizens of San Francisco on the subjects of what constitutes a beautiful and well laid out town, which is really the subject matter of this.

Among all the cities in the world, San Francisco presents as great advantages for the display of noble building and arrangement as any other, and therefore on the other hand sustains most injury in the erection of common place and unworthy buildings and bad arrangements of laying out.

We ought to be all proud of the city, and are, counting out a few carpens and cappers, who intrude their jeers at our city in the public prints, comparing it and its building unfavorably with the monstrosities met with east of the Rockies, which I think is not only uncalled for but untrue, for this city can hold its own with any other in America in its architectures. However the duties which ought to justify this pride have been woefully neglected, and instead of building up a city as nature evidently intended, we proceed to attempt to improve upon nature, and "improve" her beauties from the face of the earth. She has given us the makings of a fair and beautiful city and we must remember that we did not raise our mountains nor shape our shores and islands, and therefore have no right to destroy that which we can never create, and scar up the earth's surface as we have been doing heretofore to fit it to our surveyors' grades and for the ignoble purposes of a selfish commerce and it will be one of our objects to-night to find out a system by which this destructive labor may be done away with.

Any system however leading to this goal will meet with tremendous opposition as it is one of the customs of society, that any thing leading to destruction will receive immediate and energetic support while anything leading to construction or non-destruction will receive but very apathetic notice.

The order for a new destructive agent such as a new ironclad cruiser will be received with congratulations and acclaim and we will employ our government willingly to attend to this, why

not rather employ it in making vessels of peace for carrying articles of utility to our people; a much less expensive proceeding, although having far more beneficial results.

Why do we set our Government to do precisely the work from which there is no return, the making of engines of war and the collection of taxes and the making of laws. Let us have our wars and laws made by contract, the same system under which the rest of our business is now being carried on and then let the Government devote itself to some useful and productive occupation, such as providing for the necessary wants of the people, under the same conditions as it as present devotes itself to the destructive part.

And coming down to our municipal government, why not instruct it to save the destructive and useless labor of digging and carrying ground from one place to the other, destroying our grand look-outs and effacing the other beauties, within the confines of our city.

Give them true work to do—to prevent the destruction of our light and the destruction of our air and our watercourses.

Land, Light and Air, the three elemental necessities of our existence, all being destroyed every day in one shape or another and the terrible work being applauded by the people and done by their appointed agents.

Hear what a teacher saith on this point: "To the Persian, the Greek and the Christian, the sense of the power of the God of Light has been one and the same. That power is not merely in teaching or protecting, but in the enforcement of purity of body, and of equity or justice in the heart; and this observe, not heavenly purity, nor final justice, but here and now actual purity in the midst of the world's foulness, practical justice in the midst of the world's iniquity."

"And the physical strength of the organ of sight, the physical purity of the flesh, the actual love of sweet light and stainless color, are the necessary signs, real, inevitable and visible of the prevailing presence, with any nation, or in any house, of the light that lighteth every man that cometh into the world."

Now, if we don't have an ordinance passed pretty soon limiting the light of buildings where will that light be? Those working in lower stories will become moles rather than men, is that a consummation to be wished. And if we do not leave our natural watersheds as they are giving cleansing and scouring power to the water, and have our sewers put in by day labor under direct control of the government instead of by contract what will become of our purity. And if we do not prevent one landowner using the light area provided by another adjoining owner and compel him to make an area of his own, we have not practical justice, and the light is not in us. Therefore should we agitate for an order compelling the making a certain area of yard room proportionate to the size of the house or premises.

And in the urging of some such practical work I think it is one of the missions of the Chapter of Architects to engage and the duty of the representatives of the citizens to carry out.

We have plenty of ground in this peninsula and there is no other reason for covering up every inch of land and preventing free circulation of air and light except greed? This I hope is considered a vice by all present. You cannot surely call it a virtue or morality to debar even one human being from the proper use of the elements for the purpose of being able to say that one has more pieces of paper supposed to represent coins or even more of the pretty little golden baubles themselves, than your neighbor; yet this is done when we send men into cellars and other unhealthy and overcrowded places to work.

Therefore I say, let us dot this broad peninsula of ours over with no monstrous tall buildings, but trust to the nobler essences of form and color rather than to that of brute size so to form an unique city to which the residents of all other cities where their denizens have to crane their necks backward to see the strip of sky between the gloomy enclosing walls may come to be refreshed and recuperated.

(To be continued.)

PERSONALS.

D. H. Burnham of the firm of Burnham & Root, Chicago, has been in town this month on business connected with D. O. Mills' proposed building on Bush street.

W. J. Cuthbertson has withdrawn from the firm of Curlett & Cuthbertson, and has associated himself with Mr. Mooser; the office of the new firm is in the St. Ann's Building, corner of Eddy and Powell streets.

A JUDGMENT FOR MR. SMITHMEYER.

Judge Nott delivered the opinion of the Court of Claims this week in the Smithmeyer case, rendering judgment for the plaintiffs for \$48,000. This case was for compensation for services of the plaintiffs, Smithmeyer & Pelz, of this city, as architects of the Congregational Library Building. In 1873 they submitted plans for that structure to the joint commission, which were accepted, and for which they were paid \$1,500. For several years they were engaged in the preparation of details and the examination of almost innumerable other plans that were submitted, but received no compensation. Smithmeyer, during this period, made a trip to Europe and studied various libraries and afterwards made a report to the commission. In 1886 he was appointed for the building at an annual salary of \$5,000 and Pelz, his partner, was made chief draughtman at \$3,000 a year. Smithmeyer held this possession for two years, and Pelz is still in the service. The court went upon the theory that the claimants were entitled to recompense for the service rendered during the period when the commission was examining plans, but the question was on the basis of the recovery. The plaintiffs alleged a right to recover on the total cost of the building as finally planned which, it is estimated, will be about \$7,000,000. This would give them \$175,000 as their fees as architects, using the ordinary rule of 2½ per cent. Judge Nott indicated by his remarks that he believed that the claimants should recover in a liberal measure, but that upon a vote being taken he had been overruled by a majority of the court. He said that it was his opinion that claimant's fee should be calculated upon the basis of their original estimate of the cost of the building, or \$5,580,000, which would give them about \$135,000. The court decided, however, that inasmuch as the plaintiffs had finally accepted salaries in lieu of their regular fees at architect's rates their compensation should be in the same measure as the compensation, and, counting the period of six years when they worked without recompense at the rate of \$8,000 a year the aggregate of their joint salaries, judgment was rendered for \$48,000. The case will be appealed to the Supreme Court.—*Architecture and Building.*

COURT DECISIONS RELATING TO BUILDING CONTRACTS.

ARBITRATION CLAUSE IN BUILDING CONTRACT.

Where a building contract provides that any dispute as to the meaning or scope of the specifications shall be decided by the architect, and that any dispute as to the value of the work omitted by the contractor shall be submitted to arbitration, a claim for work done under the contract, where the only defense is that the work was not properly done, need not be submitted to arbitration. Where the contractor used his best ability and effort to comply with a contract, and the other party retains and receives the benefit of his labor and materials, the fact that the work has not been fully performed and has not been well done is only a defense to the extent of the damages caused thereby.

Gallagher v. Sharpless, Supreme Court of Pennsylvania, 19 At. Rep. 491.

CANCELLATION OF BUILDING CONTRACT FOR INCOMPETENCY.

Where a contract for the erection of a building provides that the contractor shall erect the building in the best, most substantial and workmanlike manner, and authorizes the owner to terminate it if the work is not done in accordance with the terms, the owner is justified in terminating the contract on account of the incompetency of the contractor and his workmen by reason of ignorance and dissipation. In an action by the contractor for damages sustained by the termination of the contract, recovery was sought for extra work not called for by the specifications, and it is held that if the cost of completing the building was less than the contract price, the contractor is entitled to recover for such extra work, but if the completion of the building was greater than the contract price and the value of the work, he is not. Rector v. McDermott, Supreme Court of Arkansas, 13 S. W. Rep. 334.

FAILURE TO DELIVER MATERIALS CONTRACTED FOR.

Failure to deliver materials for the completion of a building within a reasonable time, no time being specified for their delivery, entitles the owner of the building to recover damages to the extent of a reasonable rental value of the building during the time occupied by its completion being delayed by such failure to deliver goods.

Scribner v. Jacobs, Supreme Court of New York, 9 N. Y. Supp. 856.

LIEN LAW PRECEDENT.

The Supreme Court of Pennsylvania recently decided in two separate cases that a sub-contractor engaged in the erection of a building has no lien against the building if the contract between the owner and principal contractor proves that the building should be delivered free of liens. All contracts contain that proviso, but heretofore it was not supposed that it effected sub-contractors and material men, who are not parties to the contract and whose lien is given to them by statute as an extraordinary remedy. This interpretation of the law practically wipes out the Mechanics' lien law, which has been in operation since 1866, and makes all people who do work on or furnish material for a new building look to the principal contractor alone for their money. Under the old ruling a dishonest contractor could under bid all competitors, do part of the work, draw about half the money and then refuse to pay the men. With the fear of a lien hanging over his property the owner was compelled to pay the men, although he had already paid the contractor.—*Architecture and Building.*

BUILDING CONTRACTS.

THE LOWEST BIDDER.

We find in *The American Contractor*, under the heading "Contracts for Public Work," an article as applicable to private contracts as to public, stating facts which, if all who build would heed, would add much to the character, stability and comfort of our homes and business blocks, and peace to the minds and money to the pockets of their often distracted owners, as well as wealth and reputation to the architect who, too often, is responsible for all the trouble. Would do away with Buddenseiks and their flimsy, tumble down fire traps, and leave no employment for the self-styled "architect" and "wood butcher," who prey upon the public under the name of the "lowest bidder."

The man who builds, too often acquires his only building experience as his structure progresses, which experience rolls up upon him for years after his architect and builder are paid. With inexplicable short sightedness, considering his own ignorance of the subject, how often he turns to and trusts, not the man whose work shows his architectural ability, but the sign "Architect." How shamefully often, too, with short sightedness as great, do we find architects of real ability, prostituting their profession in their desire for business, betraying the trust of their patrons, robbing the building of all strength and comfort; letting the contracts to "the lowest bidder," some journeyman tramp with no money, no credit, no honor and no knowledge of his business, whose only thought is how he may "skin" the job with possible profit to himself. This is of yearly occurrence all over our country as all who come in contact with the subject know, and know as well, that we have architects who value their reputation; and builders, lumber dealers and mill workers, who will furnish only honest work and material whether or not they are "the lowest bidders."

The American Contractor says: "Practically all the work on public improvements or the contract to furnish supplies for same is let to the parties or firms offering to do the work or furnish the required supplies for the least amount of money. In other words it is the almost universal rule or custom to let 'to the lowest responsible bidder' all work and contracts to supply material, whether for national, state, county or municipal use. And on first view this seems to be the fairest possible means and calculated to give the greatest satisfaction to all. And this was no doubt the fact when first adopted. Without entering into the merits and demerits of this plan or calling attention to its frequent abuses, as we may find occasion at a future time to do, we wish herein to draw attention to the frequent losses resulting from a too rigid adherence to the rule of letting to the 'lowest responsible bidder.' If the parties letting the contract always had the prescience and judgment to correctly interpret that phrase, 'the lowest bidder,' well and good, but as a matter of fact it is only a question of figures. A's bid is \$31,500, B's \$29,900, C's \$27,320. Of course the contract goes to C if he is responsible and presumably able to do what he agrees to do. And yet it is quite possible that B's bid or A's is in reality the lowest bid.

"Not long since a prominent government official accepted the proposal of a bidder whose bid was a round ten thousand dollars higher than the 'lowest bidder,' and several leading technical journals, commenting on the fact, hailed the 'new departure' as a change in the right direction, for considering the comparative quality of the materials and the repute of the bidders the higher bid was clearly the most advantageous to the government. And we have yet to learn of the success of the lawsuit threatened by the 'lowest bidder.'

In this age of multifarious shams and adulterations, and of multiplicity of things of similar name, grade and apparent quality, one cannot expect to obtain always the material desired by securing bids in open competition based on general specifications and given to the 'lowest bidder.'

"As an instance, we noticed in the specifications for a large building not long since, 'blue Bedford stone of uniform color, cut, etc.'

"In bidding on this, what a fine chance the 'lowest bidder' has! He can put in a surface stone, or qualities that will pass inspection, but in reality be much inferior to what is desired, and so make up on the low bid. But sooner or later the price must be paid by the latter. The repairs necessitated on account of the inferior quality will more than make up what was saved on the lower bid; and, in addition, the building is less durable and gives no satisfaction to the owners.

"When a firm has built up a reputation for honest work and care in carrying out their contracts according to the spirit of the requirements, that reputation ought to stand for something, and it would be extremely rare if the bid of such a firm, as the world now is, should be the lowest one. The nation, the state, the municipality are prosperous and, like the prosperous individual, are entitled to receive the best and receive it at the lowest price. But when, in construction of public works, the contracts are given to the parties who offer to do the work for the least amount of money, they do neither receive the best nor receive it for the least money, as is a matter of notorious comment. And while a change in the manner of awarding contracts or deciding which is the 'lowest bid' may not eliminate the evils or prove a panacea, it is quite evident that the present system can be revised with benefit to the public."



The management of this journal desires to extend a cordial invitation to all Architects on this Coast and elsewhere to contribute designs for publication.

Drawings should be made with perfectly black lines on a smooth white surface. Good tracings, if made with black ink, answer the purpose.

The designs selected will be published without charge. All drawings, whether accepted or not, will be returned to their authors, who must bear express charges both ways.

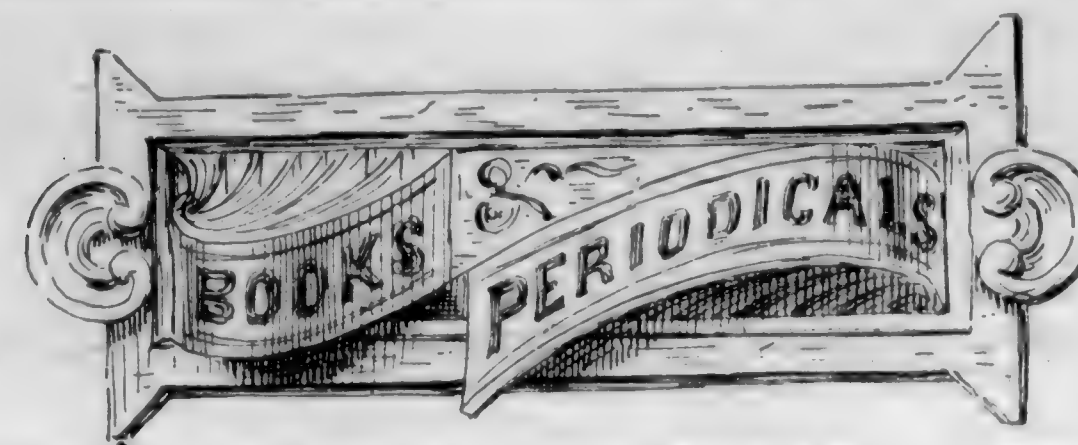
The Engine House designed by architects Shea & Shea, is proposed to be erected to house the new water tower.

The lot chosen for the purpose is the vacant space belonging to the city at the junction of Market and Bush streets.

A good deal of opposition to the project has been made by some of our citizens, who think the space should be devoted solely to monumental purposes.

The New City Hall, Omaha, which we publish this month, was designed by architects Fowler & Beindorff. We are under obligations which we desire to acknowledge to the Omaha Engraving Company for the cut.

The first and second mention designs in the competition of the A. I. A. Sketch Club, drawn by S. C. Benson and H. J. Van Vlack respectively, are given in this issue—the third mention was awarded to Jos. W. Rowell. The subject was a country stable costing \$5,000.



ARCHITECTURAL EXHIBIT.

CINCINNATI, 1889.

Selections from National Exhibition of architectural drawings and sketches, held at Cincinnati November, 1889, under auspices of Cincinnati Architectural Club.

This collection partakes somewhat of a national character, and compared with all previous exhibitions, is suggestive of the rapid strides the student of architecture is making in originality of design and in the use of his pen. It contains fifty sketches, all reproduced from photographs on very fine paper, and will make a valuable addition to any library; the price being but \$1.00.

A NEW WORK ON THE STEEL SQUARE.

THE SECOND PART of "*The Steel Square and its Uses*," just issued by the Industrial Publication Co., by Fred T. Hodgson.

The Second Part is not in any sense a substitute for the First Part, which still remains what it always has been—a necessity to every intelligent workman. But it is an extension and enlargement of the First, giving new problems, new methods and new wrinkles for shortening work and increasing the accuracy of the workman. It is illustrated in the same handsome manner which characterized the First Part, to which it forms a companion volume.

With these two volumes in his possession, the workman has at command the entire mathematics of construction, and is prepared to lay out any piece of work more easily, quickly and accurately than it can be done by any other method.

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The July number of *Stone* is full of good things for those interested in stone construction. Among the contents are the following interesting subjects treated: "The Natural Development of Architecture," "Notes on Quarrying," "Stone and Marble in Colorado," "Symbols of Art," "The Great Ice Invasion" and "Trade Schools." In the August number we are promised illustrations of the designs offered in prize competition by the publishers of *Stone*.

The June numbers of *Architecture and Building* are full of well-timed and excellent articles, and a spicy criticism on Prof. Atchison's paper, entitled "Roman Architecture," by Max Schropp, architect. Also excellent illustrations in the way of pen sketches and architectural details.

The Manufacturer and Builder for June concludes a valuable article on "Testing Building Stones," written by George P. Merrill.

House Painting and Decorating is full of good articles as usual.

The Engineering and Building Record for June 28, has an illustrated article on "The Proposed Plan of Sewerage and Paving in Duluth," that is well worth reading by those interested in the subjects.

The Inland Architect publishes a paper read by John W. Root, before the architectural class of the Art Institute, Chicago, and entitled "A great Architectural Problem." Mr. Root treats exhaustively of the requirements, construction and design of modern office buildings, and describes in a clear and entertaining manner the subject of their foundations and their requirements in the clay soil of Chicago.

Carpentry and Building for June comes out with on increased number of pages of text and advertisements, and is full of valuable articles.

The Architectural Era prints as usual, newsy letters from various cities, besides several fine illustrations.

The American Architect.—The June numbers of this popular journal are crowded with the best of reading matter. The paper entitled "Byzantine Architecture in the East" is continued. As this is a translation from a French work of high standing, it will be of great value to the English reading student of architecture. Taken together with the illustrations, which are considerable in number and remarkable for their variety, they form quite a volume for one month's production.

Among our foreign exchanges for this year is *Decoration-Motive* from Leipzig containing plans of panels and ceilings and full size illustrations for wall and ceiling decoration, edited by Richard Hess, decorator, Leipzig.



Files may be cleaned and sharpened by electricity. The files being immersed in water which is decomposed by a current of electricity, the oxygen acting upon the cuttings of the file, while the hydrogen bubbles protect the edges of the teeth.

On examination of the eyes of a number of persons, it was found that seven out of eleven had stronger light in one eye than the other—two out of five had one eye out of line—four out of nine were color blind in some degree, and only one out of twelve had good sight in all respects.

This may account for some of the barbarous forms set up and called architectural beauties.—ED.

Large quantities of lumber are being sent East, from Tacoma.

The Tacoma mill recently cut a clear timber piece 134 feet long, 24 inches wide and 18 inches thick, and contained nearly 5000 feet of lumber, board measure.

A perambulating apiary (a house for bees) is one of the late innovations in California. The hives for the bees are placed on a platform mounted on wheels, and moved from the lower regions, to higher elevations as the season advances and the blossoms appear.

Several capitalists are preparing to build near this city a million dollar slaughter, packing and cold storage house combined.

Many perishable articles may be preserved indefinitely by the electrical deposition of metal such as silver, copper, nickel, etc. A fresh egg coated with silver by this process became a work of art, which when broken after a year's time was found as fresh as when first laid. Meat, cheese or fruits may be preserved by this process. The ancient goose that lays the golden eggs could, perhaps, be embalmed in this manner and continue the deposition of golden eggs till further improvement shall render the process unnecessary.

The Chinese, who do everything in the opposite manner from the rest of the world, reflect the honor due to an illustrious name, back to the ancestors of that name, instead of to its posterity; thus showing they have a better sense of the fitness of things than we have, with all our boasted superiority.

The Supreme Court has rendered a decision in the case against the Hibernia Savings and Loan Society, charged with obstructing Olive Avenue, a small street running from Larkin to Polk streets, between Ellis and O'Farrell. The Bank claimed the street was not public property, but belonged to the Bank. The lower court decided that the street in question had been properly dedicated to public use, and this decision was sustained.

Through the exertions of Mrs. Leland Stanford, a marble monument is soon to be erected on the beach at Monterey, close to the shore, and on the same spot where Junipero Serra, the Franciscan friar, first set foot in California, in the year 1770.

Mrs. Stanford conceived the idea some months ago, and at once took steps to have her idea realized. The work is being performed by a San Jose firm, and will cost \$5,000.

THE GENESIS OF ARCHITECTURE.

The following is an extract from a lecture by Louis H. Gibson, formerly editor of *Stone*, delivered some time since in Indianapolis:

One can write the history of earlier building operations without the aid of facts. We know what they must have been. In a hilly country, people found it convenient to build caves. This suggested the necessity for a porch, constructed of small tree trunks or supports, and a covering of boughs or twigs above; in a timbered country, huts with forked corner posts, and timbers reaching from corner to corner, and upper covering of slender pieces interwoven with branches and covered with leaves, and a side covering of natural and simple material. It is easy to imagine that at first only a door is required, and that afterwards a little opening was made for the purpose of securing additional light, and in that way the window idea had its early development. The first houses of this kind probably had only one room—the cooking was done outside the door. After this a crude fireplace was substituted on the inside as being the first thought which had to do with the convenience of the housewife. The development of the Ionic capital had its germ in the simplest kind of wooden construction. There was a post and on top of it a head, the ends of which were rounded off, and finally scrolled in little, and there was the thought which developed the Ionic order. That which followed was a mere matter of detail. The development of the Doric order was even more homely. An expanded cap to give more breath-bearing surface to the girders which went across it and column—itsself a tree trunk.

The general forms of construction in architecture are simple enough. The vertical supports, which may be a tree, or a post, or a brick wall, or one of the granite or other stone, a horizontal support or lintel, which may be the limb of a tree or a trunk that is heavier, or a piece of stone. The tree may be left with its bark on, or it may be smooth in its form, as at the present time. The granite or the stone may be natural or it may be polished and elaborately decorated.

The idea of the vertical or horizontal supports are the same under any circumstances. This kind of construction is the same the world over. Everything else is a detail. We now have every form which has to do with architectural construction excepting the arch, and in the architectural histories we have discoursed on the origin of the arch, the time when it was first used, and when different kinds of arches were regularly recognized and adapted by the builders and architects of the world. In truth the arch had its origin in the upheavals of the earth. The primitive man no doubt saw it when he excavated his cave. He no doubt found it in the openings to natural caves which stood there before him, and he was able to imitate it. He piled up some stones, and, as he covered the opening, he allowed them to approach one another slightly in the center, and he dropped another one in between and he had an arch. It was taught to him by what was immediately before him. In a constructive sense we have before us all that relates to architecture. All was developed long ago; no one knew when, probably as soon as some one was sufficiently educated to want to get in out of the rain or sun.

Here we have all the constructive forms of building. We may consider the general principles leading to the development of architecture in the same way that we have the constructive features. Some barbarian built a shed and under the protection of its roof and its rude walls he enjoyed some of the luxuries of living, and his mind looked a little from the mere desire to get in out of the rain. He hung the skin of an animal on the wall to get it out of the way. This was a very ordinary housekeeping incident. It was a move in the right direction, however; it was the beginning, which led to taking things off the floor. After a time the cooking utensils found a place in some more desirable locality. This was development; it wasn't art. It was simply the beginning of the movement in that direction. He is thinking of higher things than the mere act of keeping warm. His horizon enlarges. He goes out into the forest in search of food and kills a large and powerful animal. He hangs its skin on the wall of the house, partially for the purpose of assisting in its preservation, and otherwise that his neighbor may see what he has done, in order that his neighbor may see what a great hunter

is the householder. Here is the development of his pride. The placing of the skin on the wall in this way is the expression of an idea. It beautifies the house; it is *almost* art. His mind is growing; he trims the loose bark off the beams; he sees something in the grain of the wood that looks like an animal—possibly its head; he accentuates the lines and thus decorates his house; he is a sculptor, an architect; and thus his mind moves on, in time he develops a second Michael Angelo. It takes a few thousand years, but time doesn't count; it is the result. He is the father of the architect of a Greek temple.—*Stone*.

ELECTRICITY USED FOR GENERATING STEAM.

Machinery for generating steam by electricity has been set up here and zealously guarded, but a reporter managed to get into the room in which the plant is located and guarded, and this is what he found:

To a battery of two 20-horse tubular boilers, a 10-horse engine and boiler is temporarily connected to heat the water in them; steam is raised in a small boiler, and a dynamo used to produce electricity.

The flues in the large boiler are filled with asbestos, the ends are connected with the dynamo, and the passage of the electricity through the asbestos heats it to an intense degree, causing a rapid raising of steam. When the required pressure in the large boiler has been attached, the engine driving the dynamo is attached to the large boiler, and the work goes on as before.

In this way it is claimed that but 25 per cent. of the power of the large boilers will be required to permit 40-horse power, leaving three-fourths of the power to be applied to other purposes. It is claimed that the power can be applied in this manner to any required amount. The 40-horse power could be used after starting to start up a 160-horse power and keep it moving without any cost whatever outside of keeping up the machinery.

This is the first instance on record where power could be increased; nature has always worked the other way and demanded that a stronger should work the weaker, as the 40-horse power to drive 10, and if this proves a success, as is claimed, the company have the biggest discovery ever made in America that will rank next to steam power itself.—*New Orleans Times Democrat*.

ELECTRICITY DIRECT FROM HEAT.

A dispatch from Hartford, Conn., June 2, makes the following remarkable statement: "The conversion of heat directly into electricity without the intervention of steam boilers, engines, or dynamos, is said to have been accomplished by a young Maine inventor, H. B. Cox. His experiments have proved so successful as to lead Boston and Hartford capitalists to organize a company with a capital of \$1,000,000 to put the discovery into practical operation. If the claim of Mr. Cox prove true the value of his discovery is enormous, but as yet the experiments have been only on a small scale. His method of changing heat to electricity is as simple as the changing of water to steam, the current coming right direct from the glowing coals of a furnace without the aid of any machine. No power has ever been discovered that is half so cheap as would be electricity obtained by this process. He has experimented with a furnace at his home, using a number of electric lights, and it now remains to be seen whether his experiments will hold on a large scale. His discovery would multiply by three at least the effective value of every ton of fuel used for generating power.—*Sanitary News*.

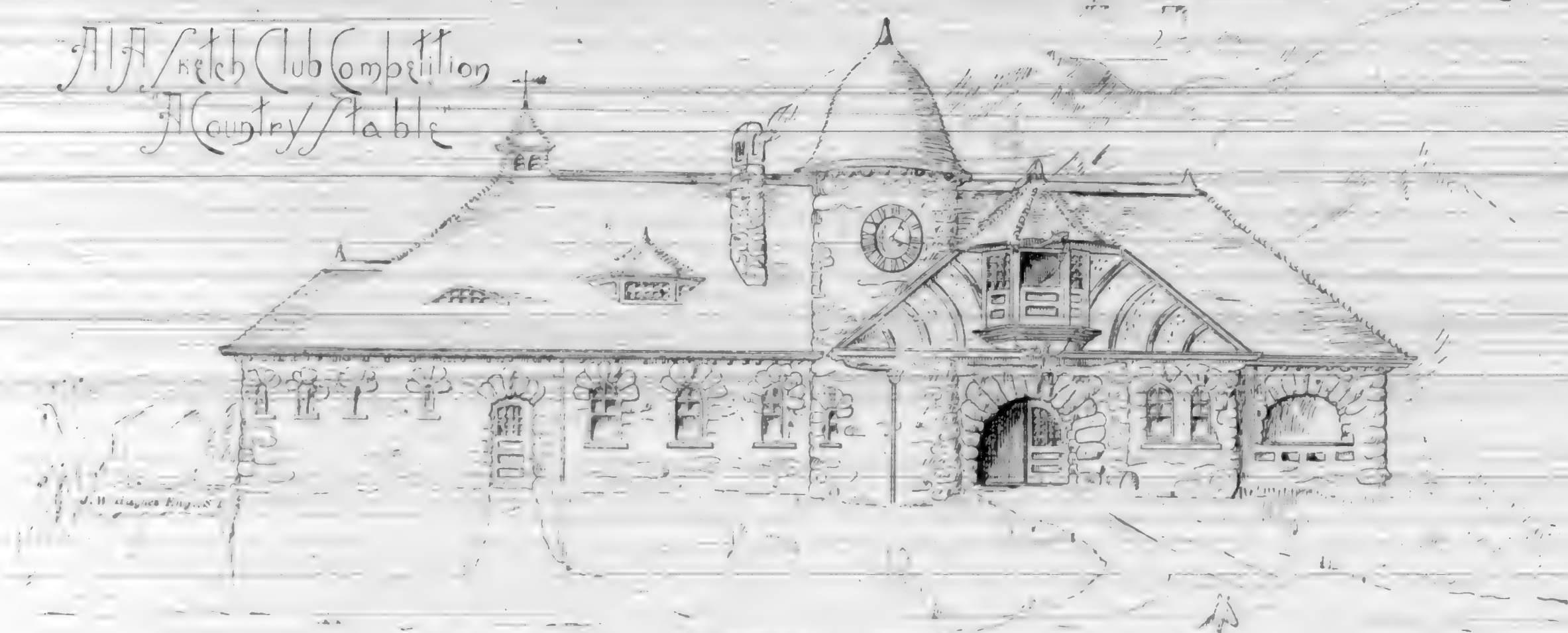
THE PRODUCTION OF CHEAP DESIGNS.

The efforts on the part of building committees to cut down fees of architects results in the erection of unstudied designs. The architect gives as little as he can for the little that he is offered, and thus gets even with his employers. The architect who takes a pride in doing his work as thoroughly as he can, and who devotes much time to the study of it in all its details, cannot compete with the man who is content to impose upon the community his first conception in an exceedingly crude form.—*The Canadian Architect*.



OMAHA CITY HALL.

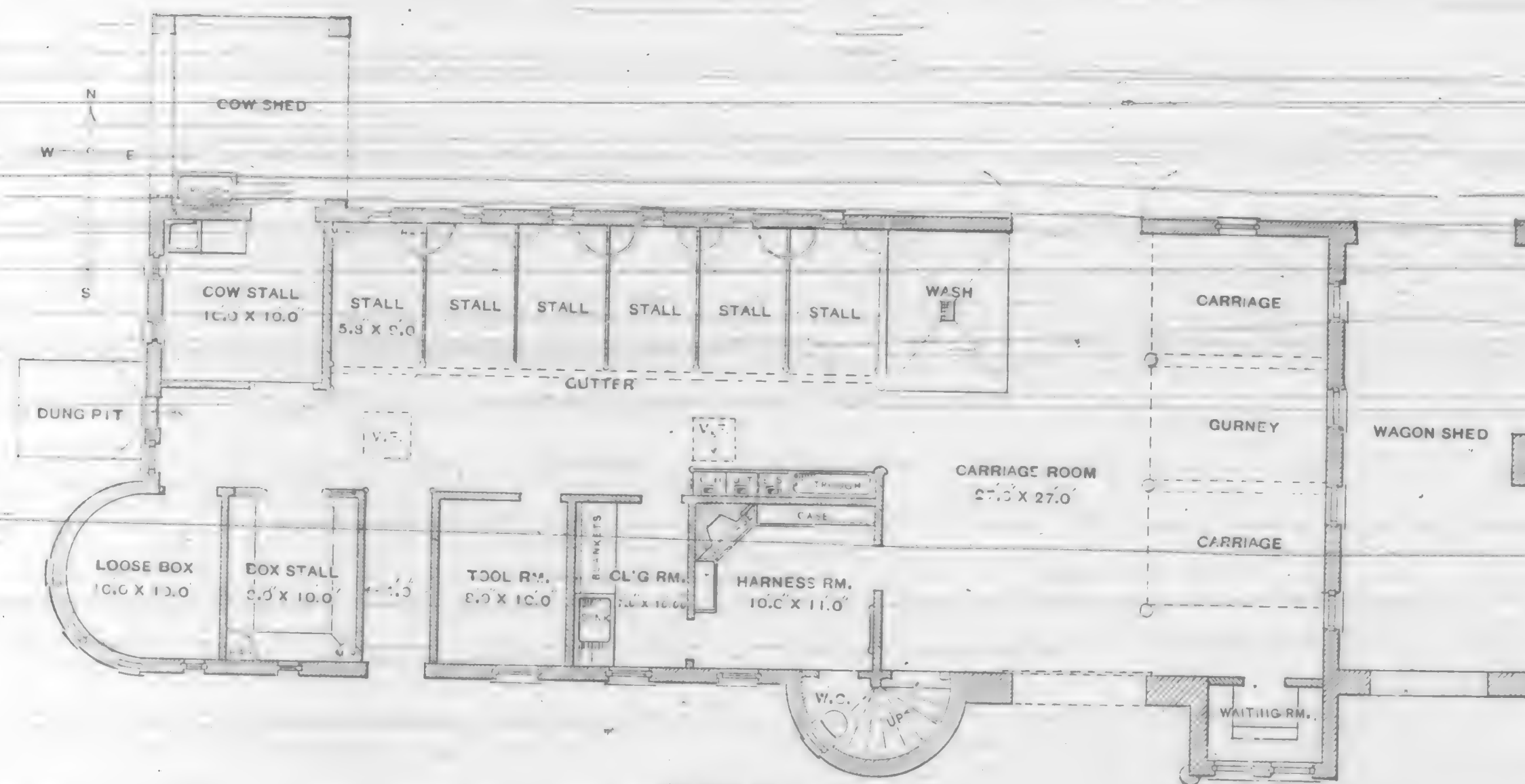
FOWLER & BEINDORFF, Architects.



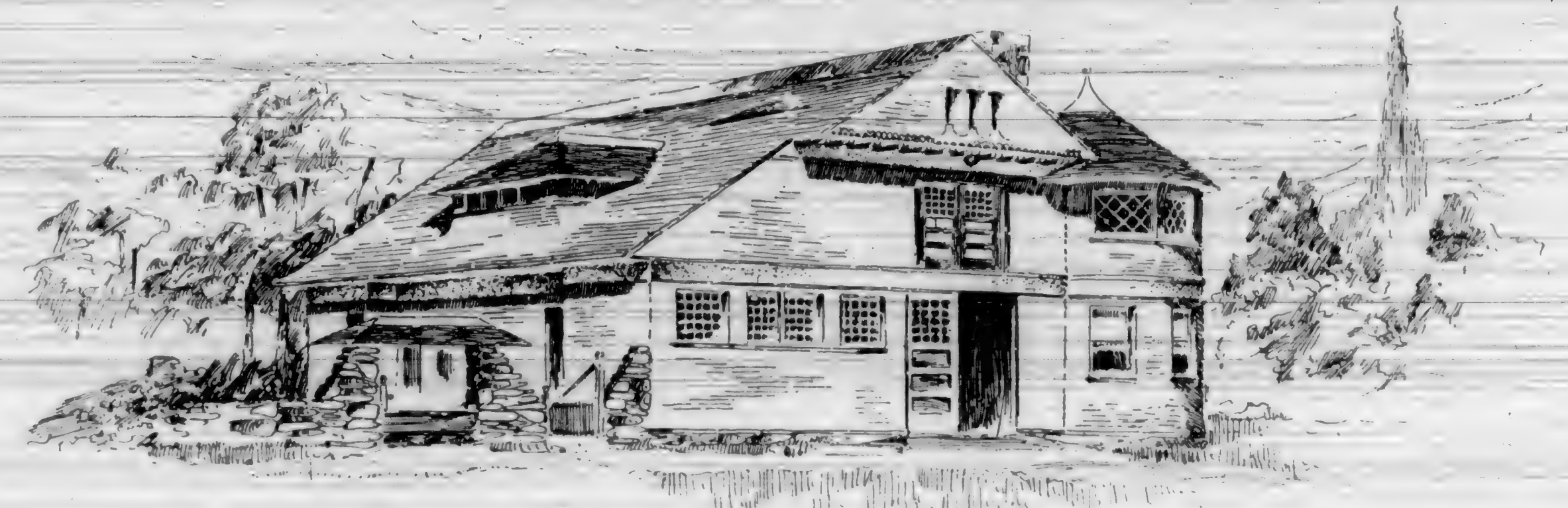
1st MENTION

ELEVATION.

By S. C. BENSON.



GROUND PLAN.

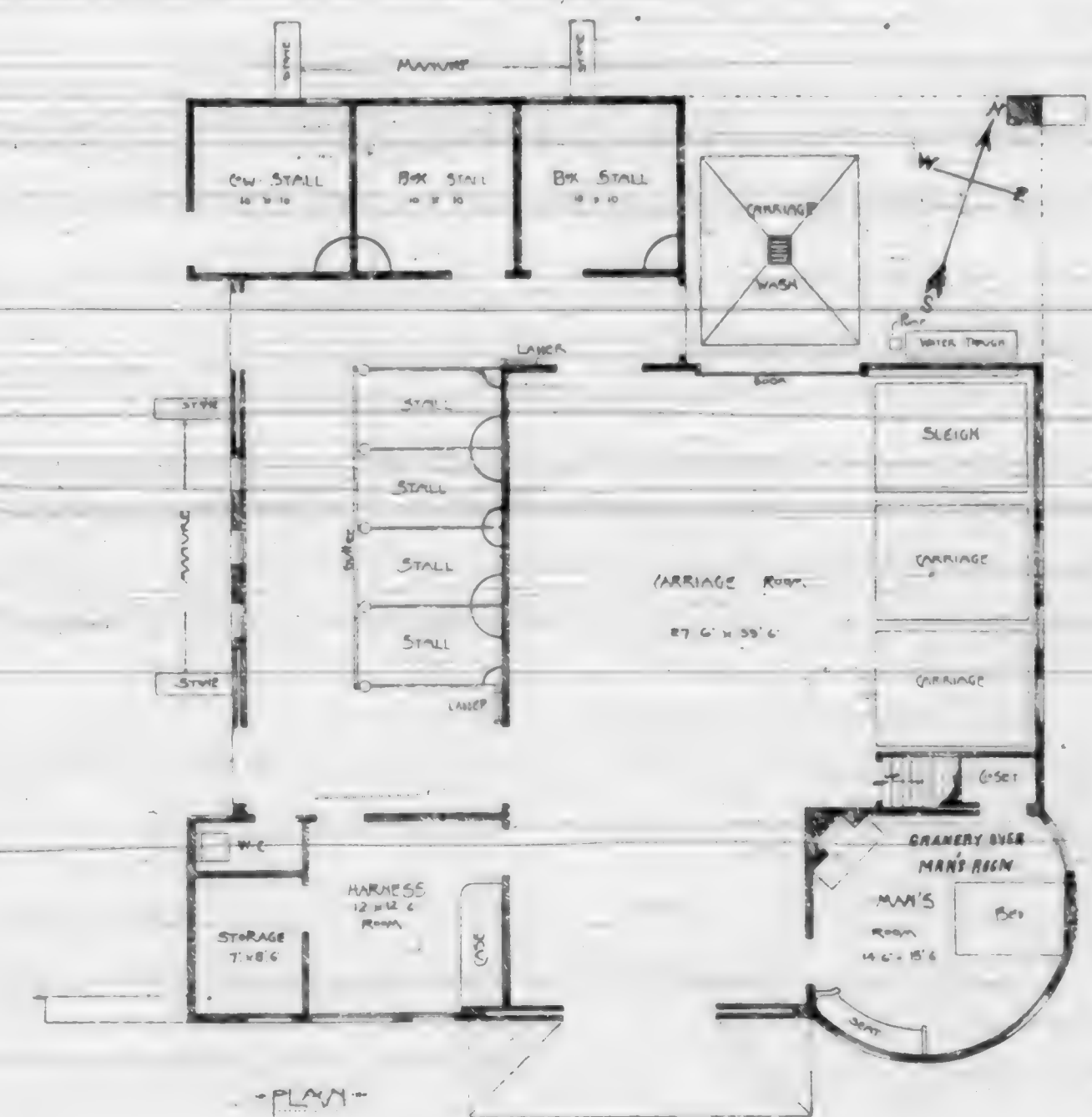


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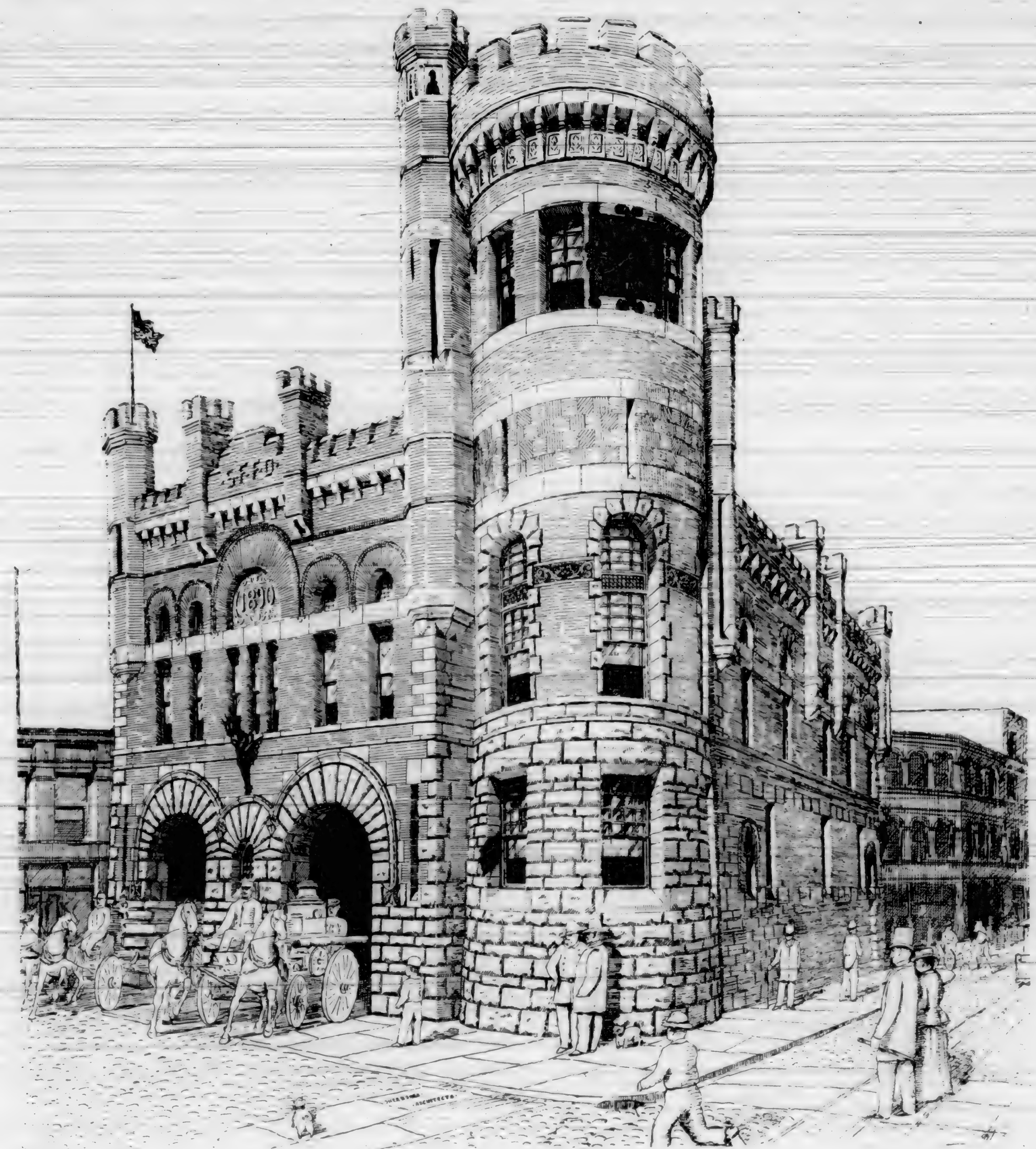
PERSPECTIVE VIEW OF STABLE.

By H. J. VAN VLACK.

A. I. A. SKETCH CLUB COMPETITION FOR A COUNTRY STABLE.



GROUND PLAN.



PROPOSED ENGINE HOUSE
For the San Francisco Fire Department.

SHEA & SHEA, Architects.

STRANGE USES OF PAPER.

PAPER is now made to serve for steel and iron. When strong fiber is used, it can be made into a substance so hard that it can scarcely be scratched. Railroad car wheels are made of it more durable than iron. A store in Atlanta, Georgia, has been built entirely of paper. The rafters, weather-boards, roof, and flooring are all made of thick, compressed paper boards, impervious to water. On account of the surface of the paper being smooth and hard, it cannot catch on fire as easily as a wooden building. It is found warm in cold, and cold in hot weather. The Breslau fire-proof chimney has demonstrated that cooking and heating stoves, bathtubs and pots, when annealed by a process that renders it fire-proof, became more lasting than iron that will not burn out. Cracks in floors around the skirting board, or other parts of a room, may be neatly filled by thoroughly soaking the newspaper in paste made as thick as putty and forced into the cracks with a paste knife. It will soon harden and can be painted. Black walnut picture frames are made of paper and so colored that no one can tell them from the original wood.

A paper piano has lately been exhibited in Paris. The entire case is made of compressed paper, to which is given a hard surface and a cream white, brilliant polish. The legs and sides are ornamented with arabesques and floral designs. The exterior, and as much of the interior as can be seen when the instrument is open, are covered with wreaths and medallions painted in miniature. An Italian monk has succeeded in constructing an organ where pipes are made of paper pulp. It has 1400 pipes of various sizes.

The American Cotton Seed Oil Trust are now running a mill for making paper from the hulls remaining after all the oil has been squeezed out of the cotton seed. They are contemplating an erection of a 100-ton mill for the same purpose. These hulls have heretofore been considered worthless. It has so far proved so successful that the trust propose erecting mills at different points in the cotton raising country. Of course, this will somewhat revolutionize the paper trade.

A new mill for the manufacture of paper from moss has been recently established in Sweden. Paper of different thickness and pasteboard made of it have already been shown, the latter even in sheets three-quarters of an inch thick. It is as hard as wood, and can be easily painted and polished. It has all the good qualities, but none of the defects, of wood. The pasteboard can be used for door and window frames, architectural ornaments and all kinds of furniture. The ceiling of the Assembly Chamber, at Albany, N. Y., is made of papier mache. It is a model of its kind, and appears so like marble as to deceive the most expert eye. The latest idea is to use paper instead of wood for lead pencils, by using a patent preparation by which it can be cut as easily as the softest wood.—*The World's Progress*.

WHO ARE THE PUPILS IN THE TRAINING SCHOOLS.

THE statement is made that the sons of professional men are in the majority in the Philadelphia Public Manual Training School. It is surprising to learn that while the children of artisans are striving to get into the ranks of the struggling and poorly-paid professions, the children of professional men are taking to mechanical pursuits. Prof. William L. Sayre, the principal of the school at Seventeenth and Wood Streets, states: "It is a curious fact that of the boys now in training-school and learning the use of chisels and hammers and laths, fully three-fourths are the sons of professional and business men. We have many sons of doctors and ministers and lawyers." Of the seventy-seven occupations recorded of parents of boys now in the middle class, fifty-four are those of professional or business men and twenty-three those of men engaged in other pursuits, of whom only fourteen are artisans.—*National Builder*.

The Central Pacific R. R. Co. are pushing the repairs on the snowsheds which were damaged by the severe storms of last season.

THE ARAB HOUSE.

The term "Arab," in its application to the domestic architecture of Egypt, as well as the vast region which extends from the borders of Tripoli to the Atlantic Ocean, is misleading. It is a question whether the distinctive features, so familiar to us in every town and village from the banks of the Nile westward, do not represent a reflux of the arts of the Moors rather than the outgrowth of any civilization that can be traced as of Arab descent. The Arabs, as a distinct race, have been at all times nomadic, living in tents, a people without emulation, and possessing none of the qualifications for advancement in the ways of civilization. The Moors, on the contrary, or, more properly speaking, the inhabitants of Mauritania, were not only a people of culture, living in towns, and encouraging art, science, and literature, but they attained a high degree of splendor, and a place in history almost as marked as that of the Romans. The fusion of the conquering Arabs with the inhabitants of Mauritania in the twelfth century, and the spread of a mixed population as far eastward as the banks of the Nile, have given rise to a prevailing idea that we are indebted to the Arab rather than to the Moor for some of the most charming features in ornamental art that have ever appeared in any country. In the planning of ordinary dwelling-houses neither race displayed much skill or originality, but were content to follow the methods of the Romans in all that appertained to their domestic arrangements. So strong is the influence of tradition in this one particular that if a native architect of the present day were asked to design, unfettered, a dwelling of ordinary pretensions, the result would have been equally satisfactory to a citizen of the Empire in the time of Augustus.—*The R. I. B. A. Journal*.

SCHOOL OF ARCHITECTURE AT THE UNIVERSITY OF PENNSYLVANIA.

The University of Pennsylvania proposes establishing an Architectural department. Three meetings have already been held to discuss the matter, and although the exact scope of the school has not yet been decided on, it has been determined to make it as broad as possible. The advice and assistance of several leading architects have been asked and promised to Provost Pepper.

The new study will form one of the features of the Towne Scientific School, and an effort will be made to have practical lectures delivered by the leading architects, and their criticism of the work of the students will also be asked. In some respects the method of work will be similar to that pursued at the law school, the students being registered as draughtsmen in the office of architects and going out to the university for the lectures. A museum will be established, containing casts of details and other helps to practical work, and an effort will be made to gather together a complete library. Degrees will be conferred.

Heretofore architecture has been studied in a subordinate way at the university as part of the course of civil engineering, but it has never as yet been made a special feature of the university work. The oldest and one of the best known architectural schools in this country is that of the Institute of Technology in Boston. The course there is four years. Afterward a department was established at Columbia College, New York, and also at the schools of Mines, in New York, and a great deal of thought is given to the subject in both institutes. A chair is also supported at Yale, Cornell and some other well-known colleges.—*Architecture and Building*.

OBITUARY.

On Saturday, June 21st, John Cochran died at his residence 419 Hyde street. Mr. Cochran arrived here in '49, and has been prominently connected with the building interests of this coast. He was in his seventy-third year.

CITY BUILDING NEWS.

- Bryant near Fourth.** Three-story frame; owner, A. Patelli; architect, M. J. Welch; contractors, S. Cuneo and G. Casaretto; cost, \$1,500; signed, June 24; filed, June 25; payments, \$1,136.75; framed, \$1,136.87; brown coated; \$1,136.35, completed; \$1,136.25, 35 days.
- Battery cor. Bush.** Alterations; owner, L. and M. Sachs; contractor, R. McCann; cost, \$1,771; signed, May 31; filed, June 9; payments, \$1,328.25, when accepted; \$142.75, 35 days.
- Block bounded by Noe, Castro, Twenty-eighth and Twenty-ninth; cementing;** owner, J. Carroll; architect, J. J. Mahoney; contractor, W. C. Watson; cost, \$1,450; signed, June 11; filed, June 17; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- Baker near Pine.** Two-story frame; owner, C. Hirsch; architects, John & Balczynski; contractors, Wells & Joslin; cost, \$2,915; signed, June 11; filed, June 19; payments, \$800; framed, \$700, partitions set, \$700, white coated; \$745, completed; \$1,000, 35 days.
- Castro near Alvarado.** Two-story frame; owner, M. G. Wheeler; contractor, F. E. Wharf; cost, \$2,500; signed, June 10; filed, June 15; payments, frame is completed, dark coat of plaster is on 25 days; in four equal payments.
- Clement near Third Avenue.** Frame; owner, J. R. Bielly; contractor, C. H. Norton; cost, \$2,775; time, 60 days; signed, June 9; filed, June 9; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- Devisadero near Bush.** Brick and carpenter work; owner, W. A. Abrams; architects, Salfield & Kohlberg; contractor, A. C. Sault; surety, W. J. Adams and C. S. Holmes; cost, \$2,500; signed, June 10; filed, June 16; payments, \$1,000, framed, \$1,000, enclosed, \$1,000, doors hung; \$2,837, accepted.
- Ellis near Taylor.** Alterations; owner, L. Schussler; architects, Salfield & Kohlberg; contractor, A. Fischer; cost, \$2,050; time, 60 days; signed, June 13; filed, June 20; payments, \$500, framed, \$450, white coated; \$500, accepted; \$550, 35 days.
- Fulton near Frederick.** One-story cottage; owner, N. J. Adams and wife; architect, L. J. Welch; contractors, Patterson & Ackerson; cost, \$2,500; signed, June 12; filed, June 21; payments, \$1,000, ready for plastering; \$1,100, completed; \$700, 35 days.
- Golden Gate Ave. near Willard.** Frame; owner, H. M. Woolley; architect, M. J. Welch; contractor, A. C. Sault; cost, \$2,400; signed, June 21; filed, June 23; payments, \$300, framed, \$300, brown coated; \$300, accepted; \$300, 35 days.
- 210 and 216, Grove.** Alterations; owner, J. Levy; architect, J. H. Littlefield; contractor, H. A. Johnson; cost, \$1,275; time, 45 days; signed, May 11; filed, June 14; payments, 75 per cent. of work done; balance, 35 days.
- Hayes near Devisadero.** Carpenter work; owner, Miss A. Wynne; architects, Huene and Everett; contractor, F. J. Penholf; surety, H. Blythe, \$5,000; cost, \$5,780; signed, June 9; filed, June 20; payments, \$1,415, enclosed; \$1,415, brown mortared; \$1,415, completed; \$1,415, 35 days.
- Jones near Geary.** Additions; owner, T. J. Moynihan; architect, T. J. Welch; contractor, A. Jackson; cost, \$3,900; signed, May 9; filed, June 11; payments, \$900, roofed; \$500, second coat of plaster on; \$1,700, completed; \$800, 35 days.
- Jackson near Gough.** Dwelling house; owner, A. St. J. Bowie; architect, S. Newsom; contractor, Geo. R. Lang; surety, F. P. Latson, \$4,000; cost, \$10,625; signed, May 29; filed, July 3; payments, on first and fifteenth day of each month at the rate of 75 per cent. of value of work done; balance, 35 days.
- Larkin near Pacific.** Owner, Geo. W. Duffield; contractor, James Bruce; sureties, Blythe and Trott and B. Joest; cost, \$1,830; time, 120 days; signed, May 10; filed, May 10; payments, \$1,200, framed, \$1,200, enclosed, \$1,200, completed; \$1,200, 35 days.
- Larkin St. Owners.** Jno. R. Fairchild and wife; sureties, Blythe and Trott and B. Joest; cost, \$1,910; time, 120 days; signed, May 3; filed, May 10; payments, \$1,200, framed, \$1,200, brown mortared; \$1,200, completed; \$1,200, 35 days.
- Larkin, Hayes and Market.** Brick work; owner, B. and S. Doe; architect, J. H. Littlefield; contractors, Shain & Hoffman; cost, \$51,970; signed, June 13; filed, June 21; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- McAllister near Baker.** Two-story and basement; owner, P. Claudius; architect, R. Zimmermann; contractor, S. T. Crawford; cost, \$2,355; time, September 24; signed, June 24; filed, June 24; payments, \$600, framed, \$300, plastered; \$744.25, accepted; \$718.75, 35 days.
- Market near Montgomery.** Brick work, etc.; owner, Crocker Estate Co.; contractor, P. Mitchell; cost, \$104,900; signed, April 12; filed, June 21; payments, 75 per cent. on first and fifteenth day of each month as work progresses; 25 per cent. 35 days.
- Market near Montgomery.** Owner, Crocker Estate Co.; architect, A. Page Brown; contractors, P. Dezan & O. P. Brady; cost, \$18,000; signed, April 12; filed, June 24; payments, 75 per cent. on first and fifteenth day of each month as work progresses.
- Minnesota near Sierra.** One-story and rough basement; owner, M. Haskins; contractor, R. O. Davis; cost, \$1,400; time, 65 days; signed, July 1; filed, July 2; payments, \$50, stubbing are up; \$300, brown mortared; \$350, white coated; \$650, completed.
- Minnesota between Solano and Butte.** Not specified; owner, J. O'Donnell; cost, \$2,550; filed, June 7; payments, \$900, rustic on; \$300, brown mortared; \$500, white coated; \$550, finished.
- Market near Montgomery.** Iron and steel work; owner, Crocker Estate Co.; architect, A. Page Brown; contractors, Rix & Pirch; cost, \$163,900; signed, April 28; filed, June 28; payments, installments of 75 per cent. on the first of each month as work progresses; 25 per cent. 35 days.
- 603, 925 and 927, Market street.** Repairing; owner, J. P. Hale; contractor, J. M. Day; cost, \$1,520; signed, June 21; filed, June 25; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- Meany near Noe.** One-story frame; owner, C. M. Page; architect, J. C. Newson; contractors, Blanchard & Laue; cost, \$17,000; signed, June 11; filed, June 15; payments, first and fifteenth day of each month.
- Minna near Fifth.** Three-story frame; owner, R. Carson; architect, J. M. Welch; contractor, M. Walsh; cost, \$2,520; signed, June 11; filed, June 15; payments, \$1,522.50, framed; \$1,322.50, brown mortared; \$1,322.50, completed; \$1,322.50, 35 days.
- Noe near Henry.** Two-story frame; owner, J. O'Brien; architect, H. Gelfuss; contractor, K. Thaler; cost, \$7,900; signed, May 11; filed, June 12; payments, \$1,180, framed; \$1,180, enclosed; \$1,180, brown coated; \$1,180, white coated; \$1,180, completed; \$2,000, 35 days.
- Noe between Fourteenth and Fifteenth.** Owner, L. Zeh; architect, W. H. Armitage; contractor, O. E. White; surety, C. F. Doe and J. T. Adcock, \$5,000; cost, \$9,700; signed, June 10; filed, June 19; payments, \$2,000, framed; \$2,000, brown coated; \$1,255, white coated; \$1,200, completed; \$2,425, 35 days.
- N. E. corner Fourteenth and Noe.** Plastering and cementing; owner, Stelling Bros.; architect, R. Zimmermann; contractor, W. C. Watson; cost, \$1,585; signed, June 19; filed, June 20; payments, \$600, brown coated, \$600, white coated; \$335, accepted.
- N. E. corner Fourteenth and Noe.** Three-story frame; owner, Stelling Bros.; architect, R. Zimmermann; contractor, Adlam Miller; cost, \$10,350; time, Sept. 30, 1890; signed, June 18; filed, June 10; payments, \$1,500, framed; \$1,500, enclosed; \$1,500, partitions set; \$1,500, inside finish on; \$1,702.50, accepted; \$2,587.50, 35 days.
- N. E. corner Fourteenth and Noe.** Plumbing, etc.; owner, Stelling Bros.; architect, R. Zimmermann; contractor, Ockelheimer Bros.; cost, \$1,322; signed, June 18; filed, June 20; payments, \$500, rough work is done and first certificate accepted; \$500, second certificate is delivered; \$322, 35 days.
- N. E. corner Green and Webster.** A dwelling; owner, M. C. Bateman; architects, Smith & Freeman; contractor, G. Clements; cost, \$7,550; signed, June 30; filed, July 1; payments, \$1,416.25, framed; \$1,416.25, ready for plastering; \$1,416.25, sand finish on; \$1,000, ready for painters; \$416.25, completed; \$1,835, 35 days.
- N. E. corner Nebraska and Yuba.** Two-story frame; owner, M. Windt; architects, R. H. and R. White; contractor, D. H. Matheson; surety, O. J. Preston, \$5,000; cost, \$8,037; time, 150 days; signed, June 27; filed, July 1; payments, \$1,200, roofed; \$1,500, brown coated; \$1,500, standing finish on; \$1,817.00, completed; \$2,019, 35 days.
- N. E. corner Post and Buchanan.** Three-story frame; owner, L. Dusenberg; architect, C. L. Harris; contractor, D. Hennessy; cost, \$11,574; signed, June 18; filed, June 15; payments, \$2,100, brown mortared; \$2,173, hard finished; \$2,200, completed; \$3,000, 35 days.
- N. E. corner Post and Buchanan.** Plumbing and gas fitting; owner, L. Dusenberg; architect, Chas. L. Hayes; contractors, Ford Bros.; cost, \$1,155; signed, June 18; filed, June 21; payments, \$425, all pipes in; \$430, completed; \$300, 35 days.
- S. W. corner Eddy and Warren.** Carpenter work, etc.; owner, C. E. Boynton; architect, W. H. Armitage; contractor, J. J. Mahoney; surety, A. J. Gordon, \$5,000; cost, \$1,800; signed, June 23; filed, July 1; payments, \$1,200, framed; \$1,200, brown coated; \$1,200, accepted; \$1,200, 35 days.
- S. W. corner Laguna and Golden Gate Ave., also Clinton near Brannan.** Painting and graining; owner, M. Frederick; architect, P. R. Schmidt; contractors, E. Price & son; cost, \$1,755; signed, June 17; filed, June 19; payments, \$125, second story ready for graining; \$100, completed; \$50, third story is primed; \$50, ready for grainer; \$500, completed; \$450, 35 days.
- N. W. corner Nebraska and Yuba.** Two-story building; owner, M. White; architects, R. H. and R. White; contractor, D. T. Pierce; cost, \$1,400; signed, June 27; filed, July 1; payments, \$800, brick foundation laid; \$250, completed; \$350, 35 days.
- N. W. corner Yolo and Nebraska.** Three-story frame; owner, J. Kenney; architect, M. J. Welch; contractor, S. Varvel; cost, \$6,541; signed, June 24; filed, June 25; payments, \$1,225.55, framed; \$1,225.40, brown mortared; \$1,225.40, white coated; \$1,225.40, completed; \$1,635.25, 35 days.
- Oak near Fillmore.** Two-story frame; owner, J. Urbe; architect, M. J. Welch; contractors, Wells and Joslin; cost, \$1,350; signed, June 16; payments, \$1,337.50, framed; \$1,337.50, brown mortared; \$1,337.50, completed; \$1,337.50, 35 days.
- Powell near Ellis.** Alterations; owner, Geo. Parker; architect, M. G. Bugbee; contractor, A. Nelson; cost, \$1,150; signed, May 10; filed, June 11; payments, \$430, brown coated; \$494, finished; \$200, 35 days.
- Powell, between Eddy and Ellis.** Bracing up building; owner, E. J. Stoddard; architect, P. R. Schmidt; contractor, R. Ringrose; cost, \$1,185; signed, May 12; filed, June 13; payments, first and fifteenth day of each month.
- Richard near South Ave.** One-story cottage; owners, G. H. Merchant and wife; architect, T. W. McKee; contractor, H. J. Bennett; cost, \$1,090; signed, May 10; filed, June 16; payments, \$200, framed; \$200, brown mortared; \$250, white coated; \$350, 35 days.
- Russ near Natoma.** Plumbing; owner, W. Zeiner; architect, A. C. Lutgens; contractor, John Bolin; sureties, W. Fuhrnknecht and J. W. Firsch, \$1,000; cost, \$1,350; signed, June 9; filed, June 9th; payments, \$500, pipes tested; \$512.50, completed; \$337.50, 35 days.
- Ridley near Sanchez.** Two-story building; owner, J. A. Letz; contractor, G. Houston; cost, \$3,000; time, 100 days; signed, June 12; filed, June 21; payments, \$900, rustic on; \$300, brown coated; \$300, white coated; \$900, 35 days.
- Ridley near Guerrero.** Three-story frame; owner, L. Boyston; architect, A. J. Barnett; contractor, O. Brant; cost, \$5,355; time, 80 days; signed, June 7; filed, June 19; payments, \$1,000, rustic on; \$700, brown coated; \$1,314, completed; \$1,340, 35 days.
- Seventeenth near Dolores.** Two-story frame; owner, Edward O. Neil and wife; architect, Chas. J. Devlin; contractors, T. J. Cook & W. V. Wry; sureties, A. D. Moore and C. S. Holmes, \$25,000; cost, \$2,200; time, 90 days; signed, April 11; filed, May 10; payments, \$300, framed; \$100, enclosed; \$500, first coat of plaster; \$500, ready for paint; \$300, completed; \$600, 35 days.
- Sutter near Scott.** Three-story frame; owner, G. Galvin; architect, J. E. Krafz; contractor, E. McElroy; sureties, B. Joest and W. Thyarks, \$5,000; cost, \$730; time, 90 days; signed, May 11; filed, June 14; payments, \$1475, enclosed; \$2,000, brown mortared; \$2,000, accepted; \$1825, 35 days.
- Sutter near Broderick.** Three-story frame; owner, W. J. Blackman; architect, C. Foff; contractor, W. A. Van Dervoort; sureties, I. Levi and O. H. Greenwald, \$5,000; cost, \$6,375; time, 120 days; signed, June 13; filed, June 17; payments, \$300, first story joists are in place; \$500, enclosed; \$955, brown mortared; \$1410; white coated; \$1110, accepted; \$1600, 35 days.
- Steiner near Ellis.** Three-story frame; owner, S. P. Blumenberg; architect, Fred E. Wilcox; contractor, O. Jensen; cost, \$1,962; signed, June 12; filed, June 19; payments, 75 per cent. of the amount due as work progresses; 25 per cent. 35 days.
- S. E. corner Fillmore and Wilkey Ave.** Three-story frame; owner, E. Schmidt; architect, W. H. Wharf; contractor, B. R. Bankins; sureties, A. J. Turner and B. S. McFarland, \$10,000; cost, \$11,650; time, 120 days; signed, May 12; filed, June 13; payments, \$1000, first floor joists on; \$1000, framed; \$1500, enclosed, brown coated; \$1500, plastered; \$500, completed; \$3,000, 35 days.
- S. E. corner Bay and Fillmore.** Two-story frame; owner, Cal. Adamant Wall Plaster Co.; architect, Mr. Cottrell; contractor, Theo. Day; cost, \$5,250; signed, May 10; filed, June 10; payments, 65 per cent. of value of work performed; 25 per cent. 35 days.
- S. E. cor. Fillmore and Wilkey Ave.** Grading and brick work; owner, B. R. Bankins; architect, W. H. Wharf; contractors, J. Barry and P. Turner; cost, \$1,400; signed, filed, June 13; June 19; payments, \$500, foundation laid; \$500, chimneys completed; \$400, 35 days.
- S. E. corner Beale and Market.** Hydraulic Elevator; owners, Holbrook, Merrill & Stetson; cost, \$6,144; filed, June 30; payments, 25 per cent. of whole contract shall be paid when completed; 25 per cent. 35 days.

- S. E. corner Battery and California.** Iron beams and etc.; owner, Tallant & Co.; architect, Pissis & Moore; contractor, Geo. Goodman; cost, \$1890; signed, June 23; filed, June 28; payments, \$1400, entire completion of work; \$1490, 35 days.
- S. E. corner Green and Scott.** Frame; owner, H. S. Bridge; architect, Mooser & Cuthbertson; contractor, B. J. Malone; cost, \$5000; time, 30 days; signed, June 14; filed, June 17; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- S. E. corner Washington and Van Ness.** Frame; owner, Jas. Phelan; architect, C. Day; contractors, C. Ingerson & C. Gore; sureties, C. Gore and C. Hansen, \$8917; cost, \$26,750; time, Jan. 15, 1891; signed, June 18; filed, June 18; payments, \$4000, framed; \$6500, brown coated; \$4500, ready for painting; \$6,062, accepted; \$6,068, 35 days.
- S. W. corner California and Hyde.** Carpenter work; owner, California Street R. R. Company; architect, H. C. Macy; contractor, O. E. White; cost, \$15,865; filed, June 20; payments, 75 per cent. of work done, on first and fifteenth day of each month.
- S. W. corner California and Hyde.** Brick and iron work; owner, California Street R. R. Company; architect, H. C. Macy; contractors, McGowan & Butler; cost, \$74,200; filed, June 20; payments, 75 per cent. of work done, on first and fifteenth day of each month; balance, 35 days.
- S. W. corner Oak and Pierce.** Plumbing, etc.; owner, J. H. Schlesselman; architects, Salfield & Kohlberg; contractor, J. D. Welch; cost, \$1,960; signed, June 23; filed, June 26; payments, \$530, rough work in; \$500, accepted; \$340, 35 days.
- S. W. corner Howard and Tenth.** A new front; owner, Rev. P. Scanlan; architect, T. J. Welch; contractor, A. McDonald; cost, \$2,715; signed, June 23; filed, June 24; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- S. W. corner Devisadero and Oak.** Two three-story frames; owner, J. Lutgen; architects, John & Balczynski; contractor, G. C. Morehouse; cost, \$2,265; signed, June 10; filed, June 19; payments, \$1,000, rough mortared; \$700, white mortared, \$565, 35 days.
- 1706 Turk street.** Alterations; owner, E. N. Murphy; contractor, Jas. B. Wright; cost, \$1,500; time, 60 days; signed, June 23; filed, June 25; payments, \$400, frame up, etc.; \$900, remainder, 35 days.
- Treat Ave. between Twentieth and Twenty-first streets.** Brick and carpenter work; owner, J. Madden; architect, W. H. Armitage; contractor, J. Campbell; sureties, A. W. Starbird and J. B. Goldstone, \$5,000; cost, \$7,900; signed, June 13; filed, July 3; payments, \$1,975, framed; \$1,975, brown coated; \$1,975, finished; \$1,975, 35 days.
- Twenty-fourth near Shotwell.** Two-story frame; owner, M. Dooney; architect, M. J. Aherne; cost, \$3,200; signed, June 10; filed, June 16; payments, \$300, framed; \$300, brown coated; \$800, completed; \$300, 35 days.
- Thirtieth and Cherry.** Carpenter work; owner, A. Michell; architect, F. A. Worden; contractor, E. C. Worden; cost, \$1,000; signed, June 19; filed, June 20; payments, \$250, partitions set; \$250, rough plastered; \$250, finished; \$250, 35 days.
- Van Ness Ave. near Washington St.** Brick work; owner, L. Schussler; architect, Salfield & Kohlberg; contractor, A. L. Campbell; cost, \$14,000; time, 150 days; signed, June 9; filed, June 9; payments, \$2,100, second floor joists are on; \$2,100, enclosed; \$2,100, partitions set; \$2,100, plastered; \$2,100, accepted; \$5,500, 35 days.
- Van Ness Ave. near Washington.** Brick work; owner, L. Schussler; architects, Salfield & Kohlberg; contractor, A. L. Campbell; cost, \$14,000; time, 130 days; signed, June 9; filed, June 9; payments, \$2,100, second floor joists are on.
- Van Ness Ave. near Washington.** Plumbing and gas fitting; owner, L. Schussler; architects, Salfield & Kohlberg; contractors, S. Ichelheimer & Bro.; cost, \$380; signed, June 13; filed, June 20; payments, \$330, rough work done; \$350, completed; \$250, 35 days.
- Valencia near Twenty-fourth.** Remodelling building; owner, A. B. Winegar; architect, J. C. Newson; contractor, J. B. Traubman; cost, \$8,700; signed, June 14; filed, June 15; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- Webster Street.** Carpenter work; owner, M. E. C. Logan; contractor, A. Jackson; cost, \$5,590; signed, May 12; filed, June 14; payments, 75 per cent. as work progresses; 25 per cent. 35 days.
- Washington near Buchanan.** Owner, D. E. Speyer; architect, S. Newsom; contractor, R. O. Chandler; surety, J. B. Traubman, \$5,000; cost, \$3,000; signed, June 6; signed, June 17; filed, June 18; payments, 75 per cent. as work progresses; 25 per cent. 35 days.

Oakland.

- Fitch Tract.** Five-room frame cottage; owner, W. N. Baronsfeather; architect, A. Steinbit; contractor, R. Gillis; cost, \$2,400; time, 60 days; signed, June 24; filed, June 25; payments, \$450, rustic on; \$450, brown mortar on; \$450, white mortar on and outside primed; \$450, completed; \$400, 35 days.
- Gaskill Tract.** Owner, S. C. Haggerty; contractor, W. Matthews; cost, \$1,660; time, 90 days; signed, April 21; filed, June 18; payments, \$400, framed; \$400, roof complete; \$400, completed; \$400, 35 days.
- Randcroft Way near Union Street.** Owner, T. H. and G. D. Penfield; contractor, A. W. Pattiani; cost, \$6,290; signed, June 19; filed, June 19; 35 days.

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BUSINESS MOSAICS.

Sanitary science has made wonderful advancement during the last few years, and manufacturers have been quick to endeavor to provide the necessary apparatus. In no other one article has there been such concentrated study to secure the best possible fixture for the purpose as is represented in the modern water-closet. Mr. Joseph Budde, of the northwest corner Mission and First streets, is the leading manufacturer of water-closets on this Coast. For over a quarter of a century the Budde Closet has been the standard closet, and whenever any suggestion for a change for the better either in a sanitary or artistic sense is made, it is at once met by a corresponding improvement by Mr. Budde, until at the present time he has a large array of diplomas and medals from expositions and societies, together with piles of testimonials, all certifying to the superiority of his closets. At certain periods a grand flourish will be made, and a closet with a famous name to back it will be introduced, but after a few weeks' trial is taken out and the standard "Budde" takes its place. The business having attained such proportions that new quarters were required, the manufactory has been removed from 43 Fremont street, the old place to the new premises, on the northwest corner of Mission and First streets.

Art-glass has become one of the necessities of the present day. By no other means can we render such beautiful effects as are produced by the admission of light through a colored medium like glass—the most gorgeous hues of the rainbow of fairy land through the soft twilight to the somber tones of night, are all attainable through crystals of various tints and forms, which blend and tone the colors into harmonious pictures, from the ideal high art of the church down through the agricultural, mechanical and civic representations, more or less artistic, as represented by the artist employed. The above remarks have been induced by a recent visit to the art rooms of Thos. C. Butterworth, 15 Polk St., where some ecclesiastical and other art glass was on exhibition, Mr. Butterworth having recently returned from the East and Europe, where he has procured the latest and newest material obtainable for producing the highest class of work in this line.

Fretwork floors of hard wood of various colors are gaining in popularity where good work is desired. The advantages of a smooth hardwood floor is at once apparent, it being easily cleaned, is pleasing to the eye, and its artistic beauty made to harmonize with the room—it is warm and pleasant to tread upon, and is lasting and economical. Messrs Reynolds and Adams at 1237 Market street is the leading firm for this class of work, on account of the good qualities of the workmanship, and artistic ability displayed. They have recently put down 4000 feet of inlaid floors for H. Liebes & Co., Post street.

Cement bricks which are becoming so common in use at this time and taking the place of burned bricks were first patented and manufactured by Mr. Ernest L. Ransom, of this city. After numberless experiments, Mr. Ransom succeeded in making a superior brick of Portland cement and sand, which by the use of coloring material could be turned out bricks of any desired color, size or shape, of even shades or mottled appearance as desired, and of smooth or rough surface. These bricks formed an important addition to the variety of materials for the use of the architect which at once found their position in many novel and interesting features in the artistic attractions for important buildings. Mr. Ransom also invented and manufactured a compound gilder of iron rods and cement stone which is applicable in many situations where natural stone would be impractical. The Cement Brick Company are now manufacturing pressed and moulded bricks of superior quality and of all descriptions under the Ransom patent. New and enlarged works are about completed at the corner of Eighteenth and Folsom streets in this city, which, when completed will be by far the most complete on the Coast, or, in fact, in the country. In the near future they will be prepared for a very heavy increase in the demand for the pressed bricks of this company. The company will soon publish the capacity of the new works.

New articles of hardware are coming into use wherever a want is implied. Messrs. A. B. Cheney & Co., (a new firm) No. 308 Market street, have shown us some improved appliances, especially a spring sash balance with adjustable brake, a door bell which takes up the slack of the wire, also transom regulators, made rights and lefts, all of which present advantages not to be overlooked by those who require the best.

Men of business capacity and character are at a premium.

Tin roofs, "there's nothing like tin for roofs" so says the wise man, and as wisdom comes from experience, we can indorse this statement without any reservation whatever for roofs of moderate pitch. For some twenty-five years or more the N. & G. Taylor Co's brands of tin have been in use on this coast, and have grown in favor with all who have used them. Before that time it was very difficult to detect inferior tin, more especially after being laid, but when the Messrs. Taylor & Co., of Philadelphia, introduced their tin, where each sheet was stamped, it became comparatively easy to detect any deviation from the specification. The tin bearing the trade mark stamp of this company proved uniformly to be of the quality as represented. Persons interested in this matter can send to Messrs. N. & G. Taylor & Co., Philadelphia, for a book called proof positive (free on application) and containing much useful information on the subject. In looking over this book, a person will at once notice the solid business look to the buildings covered with their tin, which argues well for them, as the architects and builders of such class structures would in all probability be competent to select the best in the market. An invitation is extended to everyone interested to send for their new book "How to Secure a Good Tin Roof."

Making use of everything that can be made useful for the intended purpose is economy.

The Vulcan Iron Works at 135 to 145 Fremont street, do all kinds of architectural and ornamental iron work, cable roads and tramways, and ropeways for the conveyance of freight, etc. Mr. McIntire, the engineer who explained the construction and working of a ropeway in Mexico before the Technical Society (see notice of meeting on first page) is at present connected with these works. This company manufacture an improved clip for the attachment of the freight basket to the cable, which reduces the wear on the cable to a minimum. Also many other improvements which those interested should call and examine.

Who, in the early part of the present century, would have thought that at this day the lightning of the heavens would be subdued by man and set in the walls of our houses to furnish a quiet and brilliant light to replace the old-fashioned "tallow dip" of those times, yet such is the case.

Those in want of electric apparatus having superior claims for economical working, should call on W. W. Briggs & Co., electricians, 432 Montgomery street. Also electric bells and enunciators, and all kinds of electric work is furnished and put up complete in the best manner by Messrs. Briggs & Co.

It is an uncontroverted fact that many persons would enjoy their homes more if they would exercise more care in the selection of accessories which make houses more convenient for use and more attractive to the eye. In order to attain this end, scrutinize the advertisements in this number of the CALIFORNIA ARCHITECT, and if not sufficiently described, write for further information.

Thou shalt not covet thy neighbors goods, without paying for them.

The Detroit Heating and Lighting Company, of Detroit, Mich., manufacture the "Combination" Gas Machine, intended for the lighting of factory or other buildings, in city or country where an independent lighting plant is desirable. This machine presents certain advantages that warrant special consideration by any parties interested. This company also manufacture the Balton Hot Water Heating apparatus which gives an even flow of pure warm air to any portion of the building. Descriptive circulars will be sent on application to the manufacturers.

Architects and Builders' edition, catalogue No. 9, for 1890-91 of the Willer Manufacturing Co., Fourth and Cedar streets, Milwaukee, Wis., has been received. It is a superior sample book and replete with designs as furnished by this company. The frontispiece is a pretty villa in imitation of a water color drawing, followed by a large number of illustrations of inside sliding blinds with details, for which this company is famous throughout the country, and showing the latest improvements; also a representation of sliding screens, and screen doors. This is followed by the stair work and hard work finish department, containing many designs for balusters, newels, rails and stair finish generally. It is a work that has been quite expensive and is a credit to the Willer Company. This catalogue will be sent free of charge to architects only; to others a charge of 50 cents in postage stamps, on account of the expensive character of the work. Catalogue No. 10, just issued, will be sent free on request.

NOTICE TO CONTRACTORS.

Proposals will be received at the office of Louis Hyams, city recorder of the city of Salt Lake, Utah territory, up to 12 o'clock M. Monday, the 11th day of August, 1890. Said proposals are for the furnishing of all material and labor for the rection of a joint city and county building in Salt Lake city. Said proposals to be for the entire building complete, or for the separate parts thereof—(stone and brickwork, cast iron columns, steel beams, etc., hollow tile, fireproofing, plastering, encaustic floor tiling and mosaic floor tiling, and cement work)—all to be in accordance with plans and specifications on file in the office of the architect, C. E. Apponyi, No. 141 Second East street, Salt Lake city, Utah. All bids to be accompanied by a certified check for 2½ per cent. of amount of bid. Said check to be made payable to George M. Scott, mayor of Salt Lake city, and if the successful bidder to whom the contract is awarded shall fail to enter into a contract within ten days after said award is made to him, and fail to furnish a good and sufficient bond in the sum of 15 per cent. of his bid, the said check to be forfeited to the city and county of Salt Lake, otherwise to be returned. The city and county committee reserve the right to reject any and all bids.

LOUIS HYAMS.

City Recorder.

SALT LAKE CITY, July 9, 1890. *

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A Belgian firm has contracted for \$3,000,000 worth of iron work to be used in constructing the new court house at Minneapolis, underbidding the manufacturers in this country.



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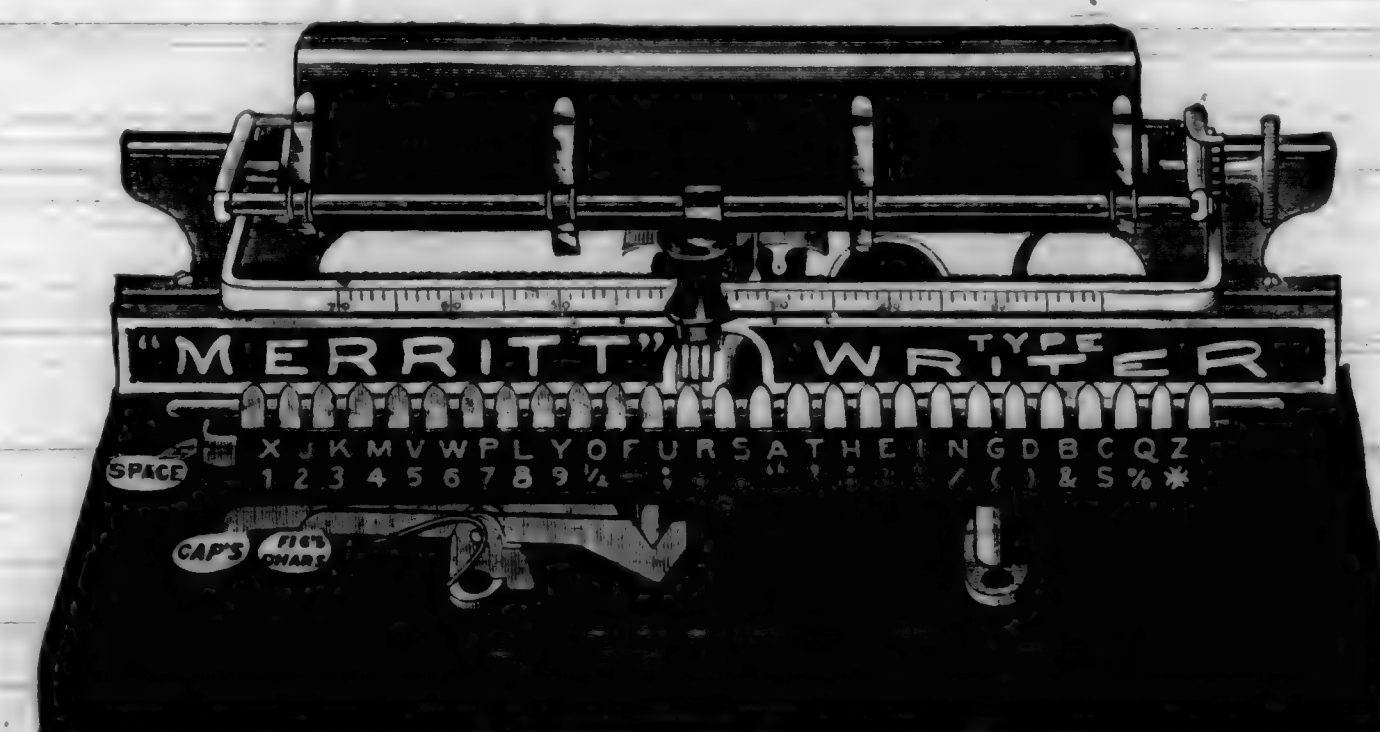
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Samples of our Pulleys can be seen at the office of Weatherly, Jardine & Co.,
132 Market Street, San Francisco.

No. 00408 A Pulley.
Page 12 in 1890 Supplement.
The above cut shows the Norris Pulley as it appears in the frame. This Pulley is made so that the Rope cannot possibly leave the wheel.

The California Architect and Building News.

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SAN FRANCISCO, CAL.

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Space.	1 Month.	3 Months.	6 Months.	12 Months.
1 inch.....	\$ 1.50	\$ 4.00	\$ 7.50	\$13.00
3 inch.....	4.00	10.00	18.00	35.00
6 inch.....	7.50	18.00	32.00	60.00
1 Column.....	12.50	35.00	65.00	125.00
1/2 Page.....	20.00	57.50	105.00	200.00
1 Page.....	40.00	110.00	200.00	350.00

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THE OCTOBER ISSUE.

Our regular October issue will be an unusually large one, and we propose to make it a remarkably interesting and valuable number; the price of single copies of the issue will be fifty cents.

NOTICE.

MR. George H. Wolfe, having no further connection with the business of this journal, correspondents will in future address their communications to the California Architect and Building News, 408 California street, San Francisco, Cal.

NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE ARCHITECTS, meets second Friday of each month at 408 California Street.

SETH BABSON, Pres. W. P. MOORE, Vice-Pres.

OLIVER EVERETT, Sec. JOHN W. CURTIS, Treas.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at 408 California Street.

JOHN RICHARDS, Pres. PROF. FRANK SOULÉ, Vice-Pres.

OTTO VON GELDERN, Sec. JAS. SPIERS, Treas.

THE regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held Friday evening, August 8th.

President Babson in the chair.

Geo. A. Bordwell was elected to fellow membership.

The awards in the monthly competition of the A. I. A. Sketch Club for hall clock were made as follows: H. J. Van Vlack, first mention; S. C. Benson, second; and Jos. W. Rowell, third.

Mr. George H. Sanders entertained the society, and the A. I. A. Sketch Club, (whose members were present by invitation) by an instructive talk on *How to Study Architecture*.

An invitation was extended to Prof. Keith, the electrician, to read a paper before the Chapter explaining the details of electric motors as applied to running elevators.

Several nominations for officers for the coming term were made, and then, owing to the lateness of the hour, the meeting adjourned for two weeks, to complete unfinished business.

THE regular monthly meeting of the American Institute of Architects Sketch Club was held on Friday evening, August 8th.

Mr. C. E. W. Hubbell and Herbert Lowery were elected members of the club. The application of Harvey E. Harris for membership was received and referred to the investigating committee.

A communication was received from the Chapter extending to the club a cordial invitation to attend the lecture to be given by M. G. H. Sanders. Moved and seconded that a vote of thanks was tendered the Chapter, carried unanimously.

The usual routine of business being transacted the drawings for the August competition (subject, A Country Chapel) were examined by those present. A Yacht Club House was selected as the competition for October. Required plan and perspective rendered in Sepia with a brush. Competition closes October 9th 1890.

The members then retired to the Chapter rooms to listen to the lecture by Mr. Sanders which was very instructive and which was highly appreciated.

THE California Electrical Society held their two last meetings in their new apartments in the Murphy Building. The principal topic under discussion at the first meeting was electrical discharges from clouds. Many useful points were developed in relation to the security afforded buildings by the use of lightning rods. At the second meeting the subject being induction many of the members entered into the discussion. This society is taking in new members at each meeting.

THE meeting of the Technical Society of the Pacific Coast was held on August 15th at their rooms, 408 California street. The principal business was the reading of a paper by the President, Mr. John Richards, on "balancing centrifugal pumps." An interesting discussion followed the reading of the paper.

THE Amateur Photographic Association gave their eleventh public entertainment at Pioneer Hall on July 31st. The subject, "Illustrated Chicago" being well represented by the lantern and an explanatory address by the speaker.