

costly casket is being knocked to pieces, the silver handles smashed and dented. Such is the fate of every casket that reaches the crematory. None so expensive that it is not used for kindling wood. Blow follows blow. The cloth is torn aside and the cedar underneath it shivers to splinters. The satin lining is rudely ripped away. It will be piled upon the flames. In a few moments the handsome case that loving friends had chosen is a heap of waste.

"But does not this seem like a wanton misuse of money?" The question was asked of the Superintendent.

"It does at first," he replied, "but there is no other way. Unless we did this there would be an illicit traffic in second-hand coffins. Unless we destroyed the handles they would be slyly sold. This has been done elsewhere, and we think it well to profit by the experience of others."

"And, then, why should it appear more wasteful than placing the same material in the ground? It is a matter of sentiment. The family feel like dedicating a certain amount to the one who has passed away. It really makes no difference whether this is placed in the fire or in the earth. One method cannot in this respect be termed more wasteful than the other."

"But half an hour has gone by. A peep through an aperture in the furnace door, ordinarily covered by a slide, reveals nothing repellent. Lying in the chamber where the heat is 1,500 degrees the body still seems to retain its shape, because the alum-soaked winding-sheet does not disintegrate until almost the last. When it does collapse there is no longer anything within. Meanwhile ashes white as snow have been sifting through the bars into an apartment beneath. One hour and there is little left in the retort. An hour and a half, and a trace remains. Two hours; the retort glows empty. In the apartment below the shower of ashes has ceased, and the deposit is taken out without any lessening of the heat above. The retort is ready to be used again."

"The ashes are placed in a copper receptacle as unpretentious as a milk can, sealed, labeled and put on shelf in a room devoted to the purpose."

"There is a process of cremation unlike the one described, but it is an exception to the rule. Sometimes circumstances suggest that a body that has been perhaps in the receiving vault be not taken from the casket. In such instances the metal is stripped away and casket and occupant go into the retort together. Incineration takes longer and the residue of ashes is somewhat greater. When a casket is in the retort one may, by listening at the door, hear the crackling of fire, but ordinarily not the faintest sound comes from beyond the barrier, and the leaping flames never touch the body that their heat all but obliterates."

"The furnace-room is not designed to be attractive, but it does not appall nor repel. There is little about it to betray its use. The floor is cement, and so are the walls and vaulted ceiling. The furnace itself is of white birch lined with a clay imported from Germany, the most suitable substance known under a lasting ordeal of fire. The room is entered through heavy oaken doors."

"There is in the building one room devoid of carpet and furniture, devoid of anything but plain shelves sustaining row upon row of the copper receptacles that possess more interest than all. Some of the receptacles are empty; quite a number are filled. The later are sealed and each marked with a date and a name. All the filled receptacles are light, but some twice as heavy as others. The heaviest probably weigh five pounds, and judged by the eye, contain three quarts of ashes. The ashes, of course, are at the disposal of friends. Some are to be interred. Some in deference to requests made by the dying will be scattered to wind and wave. As a rule they will remain where they are until they can be placed in the more pretentious Columbarium for which plans have been prepared and that will one day be as notable an addition to Cypress Lawn as the crematory itself has been. Thus far the regulation copper receptacles have been used, but there is always the privilege of adopting a funeral urn more elaborate."

"It is not without awe that one looks upon the ashes of what has been a human form. The black-coated attendants handle them with all respect. One of the men goes down

below the retort by a ladder and draws the ashes out. They are placed, still warm, in the receptacle. The largest particle is not larger than a silver twenty-five cent piece, and there are few this size. For the most part the mass is as impalpable as flour. The work of years been done in a few moments with no longer period intervening."

"All that has happened since the mysterious pall spread itself above the dais has been noted only by those having official right. Idle spectators are not allowed. Generally the mourners prefer not to linger after the solemn farewells in the chapels. The maintenance of privacy extends even to the names of those who have passed into the retort, these being usually held sacred and not regarded as matter of general interest. It will, however, at least remotely concern the public to know that one of the early subjects was Mrs. Griffes, for whose murder a man has just been on trial. Her ashes fill one of the largest receptacles."

"The process of cremation is so new in San Francisco that for a long time the picturesque building of gray will be an object of interest. Many visit it daily, at least to look up at the tall chimney and wonder that they see no smoke. Coke is the only fuel, and the vapor created by the destruction of fleshly tissues is utterly consumed. The crematory began operations without ostentation, and this policy has marked its conduct to the present. The managers were conscious that there was something of prejudice against the system, and feared lest this be strengthened by any chance mishap. There has been nothing of this sort."

"When the fire was started thirty bodies were in the receiving vaults, and these have been incinerated. Besides, there have been a number coming directly from the place of death, and still more are expected from a distance, one from far Mexico."

"The great surprise to the visitor is the absence of details such as might jar on the nerves. The attendants, trained and uniformed for their work, allow nothing to go amiss. When the casket sinks from the sunlit chapel it has been seen for the last time by those who watch it with tearful eyes. Their own word for it: it does not seem to them so terrible as if they saw it sinking into the grave and listened for the falling of the clods."

THE PRESERVATION OF THE WORLD'S FAIR BUILDINGS.

IT is gratifying to see with what unanimity the public is now clamoring for the preservation of the World's Fair buildings, which have certainly made an artistic impression on the country such as has never been felt before. Until within a few days, no proposition which seemed practicable has been made for keeping them, but a company has been formed which proposes to take in hand the buildings around the Court of Honor, replace the perishable staff with Portland cement on iron lath, keeping all the forms of the original, and paint the new material white. This will insure the preservation of the superstructure for many years, and it is proposed to strengthen the foundations, so as to prevent settlement and distortion. The company offers to do all this work, and to keep the buildings, grounds and waterways in order, for twenty years, in return for a concession for that period, entitling it to fence in the group of buildings, and charge a small admission fee. Independent of the question whether the company would find the enterprise profitable, there is no doubt that the city of Chicago would be benefited by the perpetuation of an attraction which may claim to have brought millions of strangers already to the city, and every artist would rejoice to see a little longer life accorded to the most renowned work that American architecture has yet produced.—*American Architect*.

The January number of the CALIFORNIA ARCHITECT AND BUILDING NEWS (monthly) is likened unto the last Sunday issue of the *Examiner*—a production which does credit to the energy and go-aheadativeness of its management. The illustrations therein of the Midwinter Fair are finely executed, and original.—*Warner's Building Review*.

NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS, meets second Friday of each month at 408 California street.
 SETH HANSON, Pres. GEO. W. PERCY, Vice-Pres.
 OLIVER EVERETT, Sec. JOHN M. CURTIS, Treas.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at Academy of Sciences Building.
 C. E. GRUNSKY, Pres. CHARLES D. MARX, Vice-Pres.
 OTTO VON GELDERN, Sec. GEO. F. SCHILD, Treas.

CALIFORNIA ELECTRICAL SOCIETY, meets the first and third Monday evenings of each month at the Academy of Sciences Building.
 GEO. P. LOW, Pres. C. O. POOLE, Vice-Pres.
 MAX CASPARI, Sec. H. T. BESTOR, Treas.

SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

THE regular monthly meeting of the Chapter of the American Institute of Architects was held on February 9th, 1894.

An application for membership was received from Mr. Edgar Marx Lazarus of 664-665 Worcester Block, Portland, Oregon, of the firm of Elliott & Lazarus. The application was presented by Mr. Reid and endorsed by Mr. Percy, and was referred to the Executive Committee to take the usual course.

The following communication was received from Mr. Percy:

GENTLEMEN:—Having experienced a great deal of trouble with Electrical Contractors, and being satisfied that some method should be adopted, whereby work of this kind could be properly installed, without the trouble and inconvenience usually had, I would respectfully suggest, that this Chapter consider the appointing of a permanent Electrical Inspector, his remuneration to be a certain per cent of the cost of the electric work in each installation, said amount to be paid by the Electrical Contractor, and to be added by him to his contract price.

In support of the above suggestion, I would state that such an appointment will at once relieve architects of the responsibility of designing electric installations, of drafting plans and specifications therefore, and of the supervision thereof. It will positively prevent imposition from the placing of inferior or unreliable electric work and in effecting the solution of the electric wiring problem, will be of the greatest service to both property owners and architects.

I would also suggest that in all Electric Specifications furnished by the architect, the contract should cease at the wiring of the gas outlets, and not include the electric burners, for the reason, that very often, owners do not place fixtures in the building for months after same is finished, thereby keeping the contractor out of his money through no fault of his own.

I also think that where possible, the electric work should be a separate contract, but all carpenter work in connection with same, such as closets, doors, wainscoting, etc., should be included in the carpenter's contract.

I respectfully ask the Chapter to discuss these matters and appoint a committee to consult with the different Electrical Contractors to see what can be done toward carrying out these ideas.
 G. W. PERCY.

Mr. Percy was appointed a committee to confer with the Underwriters and the Electric Light Co., and endeavor to carry out some such arrangement as suggested.

A communication was received from a committee of the Institute, requesting the views of the Chapter on the relationship of the Chapters to the Institute and to suggest such changes as may be deemed expedient.

A committee consisting of Messrs. Polk, Reid and Pissis, was appointed to act with the President and Secretary.

A letter was read from A. J. Bloor, the Secretary of the New York Chapter, in relation to the history of all the trans-



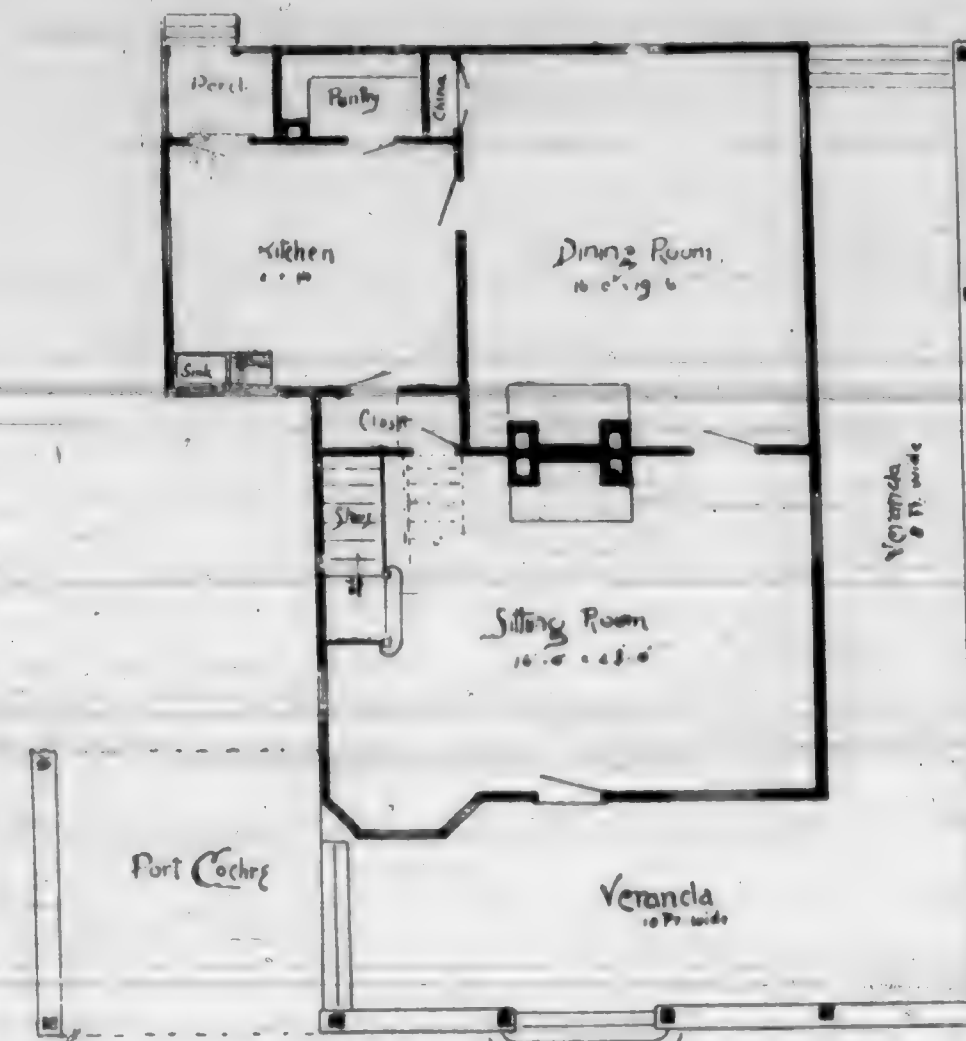
A COUNTRY COTTAGE.

actions of the American Institute of Architects, and kindred organizations, and the Secretary was instructed to assure Mr. Bloor of the hearty co-operation of the Chapter, and to offer such assistance to him as it may be in the power of the Chapter to give.

The St. Louis Chapter forwarded a copy of their Constitution and By-Laws, for which due acknowledgments were expressed.

At the evening session, Mr. Geo. W. Percy read an interesting and instructive paper on his experiences in the use of concrete in building construction, and in the discussion that took place after the reading, many points were more fully entered into.

THE CALIFORNIA ARCHITECT AND BUILDING NEWS, San Francisco, Cal., is making strides of progress that speaks of much energy and ability. The selection of illustrations are admirable for their useful studies and assistance offered to the profession of designing and planning, from a modest country cottage to palatial structures.—*The Chicago Clay Journal.*



LEGAL DECISIONS.

From a large number of Legal Decisions of the higher Court, of the different States of the Union, we select and publish in this column, such as appear applicable to this section of the country.

HOMESTEAD EXEMPT FROM MECHANIC'S LIEN.—A parol agreement to pay for materials used in the repair of a house on homestead premises is insufficient to charge the homestead with a lien for such materials.

Burtch v. McGibbon, Supreme Court of Mich. 56 N. W. Rep. 1110. 34.

LIABILITY OF ACCEPTOR OF ORDERS.—The acceptance of an order payable out of the last payment to become due on a building contract is enforceable against the acceptor, though the last payment never became due, where it was prevented from becoming due by the fault of the acceptor.

Mersereau v. Villari, Supreme Court of N. Y. 26 N. Y. Supp. 135. 47.

FORFEITURE OF WAGES IN CONTRACT OF EMPLOYMENT.—A contract of employment which stipulates that the employee, if he leaves the service without giving three days notice, shall forfeit all moneys owing him, provides for a penalty, and not for liquidated damages. Schmieder v. Kingsley, Common Pleas of N. Y. City and County, 26 N. Y. Supp. 31. 38.

EVIDENCE OF THE VALUE OF SERVICES OF ARCHITECT.—In an action for services as an architect, in drawing plans, the issue being as to the amount to be paid, according to agreement, the introduction of other plans in evidence was, at most, harmless error, testimony of a witness that he had obtained good plans of an architect for a less sum than that proved to be a customary rate of charges of architects, was properly excluded.

Cooper v. Gorgon, Court of Civil Appeals of Texas, 23 S. W. Rep. 608. 76.

TRANSFER OF MATERIAL MAN'S ACCOUNT DESTROYS LIEN.—The transfer by a material man to another party of his account for materials furnished in the construction of a building, before the filing of his claim for a lien, destroys the right to a lien, and confers no authority upon the assignee to file and enforce a mechanics' lien for such materials. The assignee, after such assignment, cannot perfect the lien by complying with the requirements of the statute.

Noll v. Kenneally, Supreme Court of Neb. 56 N. W. Rep. 722. 91.

FAILURE TO PROCURE ARCHITECT'S CERTIFICATE.—Final payment of the sum due a sub-contractor, from a builder for work performed cannot be refused on the ground that the sub-contractor had failed to procure an architect's certificate, as to the proper performance of his work, as required by the contract, where the architect has certified that the sub-contractor is entitled to a settlement, but without prejudice to any claim the builder might have for time lost or work done in carrying out the terms of the contract.

Grannis v. Hurd Lumber Co. v. Deever, Supreme Court of N. Y. 2 N. Y. Supp. 375. 91.

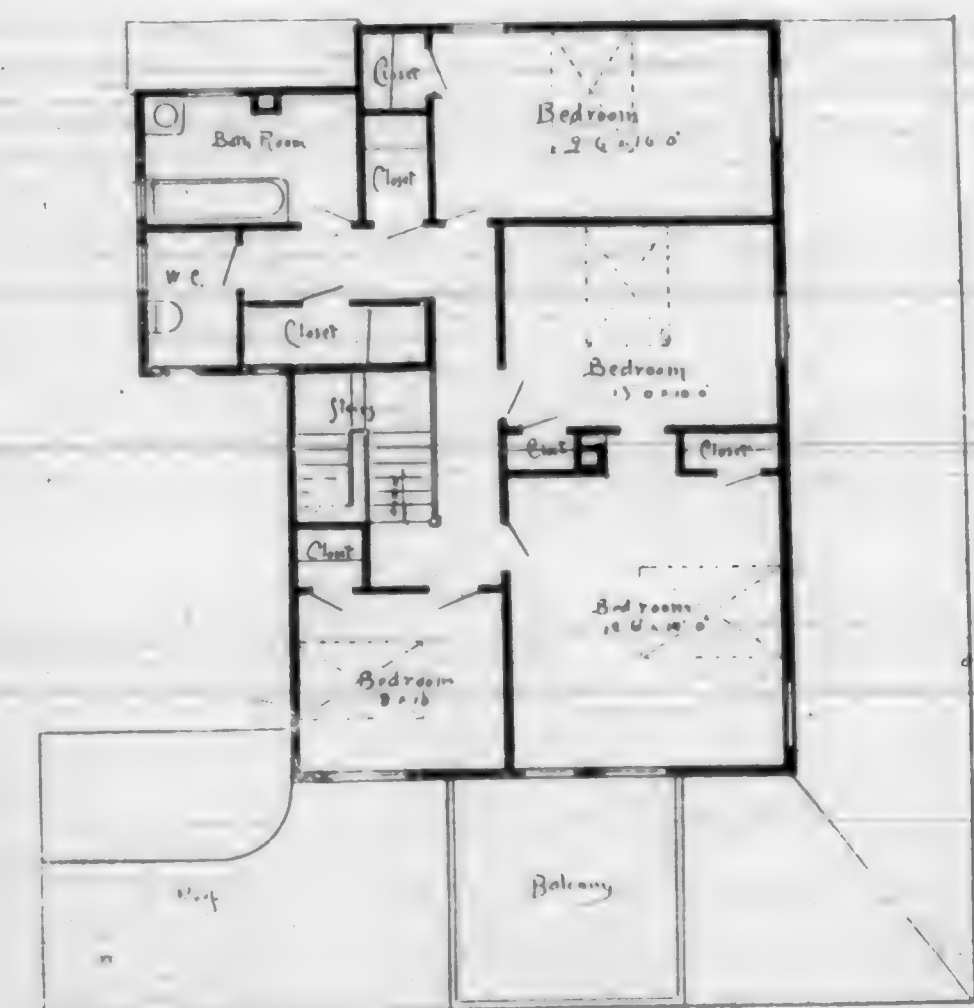
DAMAGES FOR BREACH OF CONTRACT.—Where one had contracted to build an ore dock according to certain plans, and to complete the same by the first of May, the timbers required for the work were of peculiar and unusual dimensions, and in order that the workmen be kept employed, it was necessary that the timbers be furnished at certain times; and as the dock had to be built in and over the water, it was necessary to an advantageous performance of the work that it be done while the ice remained on the water. In January a party with knowledge of these facts, agreed to furnish all the timber for the work in three monthly installments, his contract containing a provision that, "in the event of his inability to furnish all or any of said timber as proposed above, he agreed to allow the contractor to purchase the same in the open market, and charge the necessary expense to his account, the same as if he himself had purchased it." This did not amount to a stipulation for an exclusive measure of damages in case of a breach of the contract.

Williston v. Matthews, Supreme Court of Minnesota, 56 N. W. Rep. 1112. 175.

TENDERS TO BE RECEIVED.

Treasury Department, Office Supervising Architect, Washington, D. C., February 8, 1894. Sealed proposals will be received at the office of the Custodian of the U. S. Custom House, etc., and Old Appraisers' Stores buildings at San Francisco, California, until 2 o'clock P. M. on the 15th day of March, 1894, and opened immediately thereafter, for furnishing all the labor and materials required for the repairs, painting, etc., of above named buildings, in accordance with the specification and instructions of the Custodian. Copies of the specification may be had on application at the office of the Custodian at the buildings. Each bid must be accompanied by a certified check for a sum not less than 2 per cent of the amount of the proposal. The right is reserved to reject any or all bids, and to waive any defect or informality in any bid should it be deemed in the interest of the Government to do so. All bids received after the time stated for opening the same will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for Repairs, Painting, etc., of the U. S. Custom House, etc., and Old Appraisers' Stores Buildings," and addressed to, Mr. John H. Wise, Custodian.

Treasury Department, Office Supervising Architect, Washington, D. C., January 29, 1894. Sealed proposals will be received at this office until 2 o'clock P. M. on the 7th day of March, 1894, and opened immediately thereafter, for all the labor and materials and fixing in place complete the low pressure, return circulation, steam heating and ventilating apparatus required for the U. S. Post Office, etc., building at San Jose, California, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent at San Jose, California. Each bid must be accompanied by a certified check for a sum not less than 2 per cent of the amount of the proposal. The right is reserved to reject any or all bids and to waive any defect or informality in any bid, if it be deemed in the interest of the Government to do so. All bids received after the time stated will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for the Low Pressure, Return Circulation, Steam Heating and Ventilating Apparatus for the U. S. Post Office, etc., building at San Jose, California," and addressed to, Jeremiah O'Rourke, Supervising Architect.



BOOKS AND PERIODICALS.

It is always interesting to read the impressions made upon foreigners on a first visit to America and in *NOTES ON MY VISIT TO AMERICA* a paper read by C. J. Cuthbertson, Common Councilman of the City of London, we have an account of the effect made upon a Londoner.

Here we have what struck him most strongly in New York:

"During our first walk we noticed the shops were large, bright and attractive. Many trams running, some drawn by horses, others by cable. Omnibuses few, drivers and conductors clean, smart and noisy; but the former are bad coachmen. Horses very lightly harnessed. Traps and carts very lightly made swarm in the streets; the most popular being the four-wheeled 'buggy'. Altogether a place of business, bustle and noise, is the first verdict of the new comer. New York is well planned, the streets run in parallel lines, and mainly distinguished by numbers. The houses very high, commonly rising six or eight stories, and built in blocks. In running up new houses, a foundation is prepared; an entire framework of iron erected, which is afterwards filled in with brick or stone, as required. In one of the squares a building was noticed with a frontage of white marble, producing a remarkably rich effect. Electric light advertisements here and there were very fine; in one instance four different lines of matter being displayed in as many different colours. The elevated railways running through the streets level with the first floors of the houses attracted attention. Although awkward in appearance, and in some cases injurious to business, by blocking the light from the shops before which they pass, they are yet found helpful to others, as they run every minute, stop at certain street corners, and the terminus only, thus giving great facilities to buyers in and around their neighbourhood. *En route* I was much amused at the free and easy attitude of the ticket collector, who was sitting in an armchair, with feet resting well up, coolly looking on while our tickets were placed in a box in front of him. All tickets by rail or car in New York are of the uniform price of 5 cents, and all of same class. The railway carriages are of light construction, while the railways themselves are almost unenclosed. Leaving Fifty-fifth street, I walked to Central Park, and was much struck by its extent and beauty. Within it is a large and excellent Zoological collection, open to all free of charge. Returning to the city, I noticed among the stores that of Stuart, which consists of an entire block, containing about a hundred separate shops. In New York we met with our first monetary experience, the most popular currency here being the Dollar Note, and one felt momentary surprise, when called upon to part with a note for 48. 2d. The principal coins in use are ½ dollars, ¼ dollars, 10 cents and 5 cents. Weather was now very hot; majority wearing straw hats, otherwise in dress our cousins presented the appearance of quiet English gentlemen. Dress generally is here very expensive. Passing down Eighteenth street I paid a visit to the Fire Engine Station. The Captain informed me that in case of an out-break, everything could be got ready and despatched in *nine seconds*! Subsequently at drill we saw this feat accomplished."

It is evident by the following that natural wood finish is not so common in England as here.

"The blocks of mahogany and walnut were enormous, and the specimens from Australia, Canada and California very good. Speaking of woods, I observed that where this mater-

ial is used for interiors of houses it is simply planed and polished, or varnished, seldom or never painted."

The author's remarks anent the Electricity Exhibit at the World's Fair indicate that nowhere in the world has such an advance been made in its applications as in this country:

"We next visited and revisited the *Electricity Building*. This fairly astonished and entranced me. It baffles description. The American seems to be perfectly at home with the new light. Electricity is seen in all forms and devices on buildings and in streets, the effect in many cases being brilliant and imposing; the illumination of the grounds, statuary, boats, etc., by night was simply grand. On the summit of one of the buildings is an electric search light, which can be seen a distance of forty miles."

He thus curtly dismisses the tall buildings of Chicago with several notes of exclamation.

"As to the city itself, Chicago is noisy, bustling and busy. It is noted for containing the tallest houses in the world. I was invited to a Masonic Lodge on the *eighteenth story*! the house itself having no fewer than *twenty-two*!"

And winds up with the following tribute to the American character.

"Among our thoughts on the homeward trip was this, that, with the exception of a little extra smartness and alertness, our American cousins are, after all, one with ourselves; and personally I am bound to say that the kindness and courtesy uniformly extended to me in the States contributed greatly to the pleasure of a most enjoyable holiday."

LIPPINCOTT'S MAGAZINE for February, 1894. The complete novel in the February number of Lippincott's "The Picture of Los Cruces" is hardly up to the standard of the novels published in this magazine—the varied contents in other departments, however, will make it an interesting number to the general reader.

ELECTRICAL LITERATURE.—A monthly summary of current literature, Volume 1, No. 1. Published by Fred De Land, 565 The Rookery, Chicago, is intended to supply a brief synopsis, in a classified form, of each important article and editorial that may have any bearing on any phase of electrical engineering appearing in any publication, either American or foreign. While their publication cannot fail to be of great use to the Electrical Engineer and students of electricity; we fear the general public who care only for results accomplished, cannot be relied upon to support such a publication, upon reflection we may be saying too much, as there is a vast number of the public who are interested in this subject.

THE POTSDAM RED SANDSTONE CO., have favored us with a very artistic calendar for 1894. They enclose at the same time a report and an excellent likeness of the late Dr. Newberry and other experts of note.

The Potsdam Red Sandstone is doubtless all these expert says, but an account of the distance and cost of transportation has not interested the architects of this coast and those interested in building as it otherwise would. Beside this there is a feeling growing up in this community that we should look at home for building material. Encourage home industry, is getting to be the cry, and eventually it will be found we have building stone and marbles in our own state that cannot be rivaled or excelled.

BUSINESS MOSAICS.

Vulcan Iron Works.—Those in want of Architectural and Ornamental Iron Work cannot do better than give this company a call. To see the dainty stable fixtures will make you wish to build a new stable at once, or at any rate to remodel your old one; why a horse provided with such fixtures in his stable holds his head a trifle higher and looks down with contempt upon the unfortunate animals who do not have his advantages. Do not allow the feelings of your favorite horse to be hurt through the want of fixtures which are cheapest in the end—as they last long and save feed.

Teacher.—"Try to remember this: Milton, the poet, was blind. Do you think you can remember it?" "Yes, ma'am." "Now, what was Milton's great misfortune?" "He was a poet."—*American Grocer.*

Ruffino & Bianchi, importers and manufacturers of marble, granite, monuments, tombs, wainscoting, steps, tiling, etc. The good taste displayed by this firm, in a department that more than most others appeals particularly to sentiment and feeling should be a sufficient reason for crowding their works to their utmost capacity. Call and judge for yourself at 862 to 870 Bryant street, San Francisco.

Cholly.—I—I called to ask—er—er— HER PAPA—Yes, yes; you may have her! Take my blessing!! This is my busy day!! Get out!!—*Puck.*

We recently has a visit from Mr. W. S. Purnell, the travelling representative of Merchant & Co. of Philadelphia, whose specialties we have frequently noted in these columns.

Merchant & Co. continue to hold their own against numerous competitors by the excellence of their goods. About two hundred of the Star Ventilators will be used in the erection of the New French Hospital in this city, they having been chosen as being the best as well as the most economical.

Englishman.—"Beastly weather, h'isn't h'it?" AMERICAN—"Humph! The only creature that would like this weather is a duck, and a duck isn't a beast; it's a fowl. This is foul weather."—*New York Weekly.*

The Samson Cordage Works of Boston have issued their 1894 Catalogue and call especial attention to their "Samson Spot Cord." This cord has been put on to the market the last year to supply the demand that the Architects have made for a first quality Sash Cord which should be so marked that it could be identified at sight after the label has been removed from the low grade cords which are bought on account of the low price rather than on account of their wearing qualities. The "Samson Spot Cord" is the same quality and price as the regular "Samson" Cord, which has for years been so favorably known marked with a succession of a different color from the body of the cord. The company has adopted this device as a trade mark. Their catalogue describes this cord as being warranted of perfect braid and finish, and to be entirely free from waste stock, and purchasers may have confidence that the spot is a guarantee of quality. Samples will be gladly sent on application.

The Rapid Safety Filter.—To those who wish to retain good health, be wise in time, and order a Rapid Safety Filter, the office of the company is at 1209 Market street. These filters are endorsed by the leading physicians who strongly recommend their use. No charge is made by this company for fitting, keeping in order and cleaning the filter; the charge is very moderate and includes all these points, see their advertisement on page XII this journal. If you once commence with their use you are sure to continue it.

"Be mine, Amanda, and I'll treat you like an angel." "I daresay! Nothing to eat and still less to wear!"—*News Letter.*

Infringement of the Star Ventilator.—In the Omaha *Sunday World Herald*, of December 17th, appears a paragraph in regard to an alleged infringement of the patent of Merchant & Co.'s Star Ventilator. It would seem that the Star Ventilator was specified for the Lincoln, Neb., Hospital for the Insane and that the contractor placed other ventilators in the building which Merchant & Co. claimed to be infringements on their Star patents. Steps were accordingly taken to stop payment on the work pending an investigation. The matter was duly laid before the State Board of Public Lands and Buildings, with the result that the board decided to withhold a settlement with the contractor until he had made a satisfactory settlement with Merchant & Co. We are informed that Merchant & Co. have recovered heavy damages in the case.—*Metal Worker, January 6, 1894.*

"New York is a great place," said the tourist. "It has an Italian quarter, and a Chinese quarter, and a French quarter, but where is the American quarter?" "In the pocket of the hotel waiter," answered his American cousin.—*News Letter.*

Bolton & Strong.—The beautiful half-tones we have published of late were executed by these Photo Engravers, 430 Pine street, San Francisco. There is no doubt these gentlemen stand at the front in this class of work on this coast, indeed they do not take a back seat if we look the country over from east to west. Calling in the aid of the electric light they can work regardless of the state of the weather, clouds or sunshine.

"Why, oh why, do all men join in the mad rush for gold?" shrieked the female lecturer, who had acquired many years but no husband. "Because," yelled a voice from the back rows, "they have to do it to keep the women in clothes!"—*News Letter.*

Dunham, Carrigan & Hayden Co.—Builders' hardware in endless variety, including a complete line of Hopkins & Dickinson Manufacturing Co's Bronze Hardware, indeed, a visit to their bronze art room will well repay one, if only to see the various useful inventions, combining artistic taste with the every day essentials required by every builder. As dealers in hardware, iron and steel this firm are so well known, it is hardly worth while to say their establishment will be found at 17 and 19 Beale street, as well as 18, 20, 22 and 24 Main street, San Francisco, Cal.

Forgetfulness is a common failure of humanity, and everything that helps us to remember easily receives our hearty endorsement. Of just such a character is the "Daily Reminder," which the Bostwick Steel Lath Company, of Nilss, O., are now sending out to their friends and patrons with the compliments of the season for a Merry Xmas and a happy and prosperous new year. This little book is a complete diary and calendar combined, giving the day of the month, the day of the year, holidays, etc. Of course the company are anxious that reference to its pages shall also remind the reader that the Bostwick fire-proof steel lath is the best on the market and should be investigated by architects, plastering contractors and others who are trying to find a good lath to put into their buildings. This lath was awarded a premium at the World's Fair.

"It's very hard," said the water-meter, "I'm always registering, but I can't vote!"—*News Letter.*

The truth of the saying "the works of a good man lives after him" is illustrated by the success of the Joseph Dixon Crucible Company, though greatly enlarged and improved

since his death the same spirit governs the concern as when he lived, and the march of improvement is ever onward.

The sight of an excellent likeness of the late Joseph Dixon, reminds me of an occurrence that happened some years before his death, it gives a very good illustration of the fun that lurked under a somewhat austere countenance.

About the time when Pains claim of a great discovery was the talk of the day, and some people were ready to believe a revolution in gas making from water was about to be a certainty, Mr. Dixon announced a lecture upon the subject of Pains water gas, and proceeded from the platform to apparently perform the experiments that Pain had announced with a flourish of trumpets; water was decomposed, the gas collected, afterward carbonized and burst before the delighted audience. Mr. Dixon bowed his acknowledgments—"I should say before you go—there is one little point of difference, my machine is of wood though the magnets are painted to represent iron." Up jumped an indignant man and said, "If that is so I pronounce the thing a humbug." "You have characterized it exactly, the object of the lecture is accomplished," replied Mr. Dixon.

CITY BUILDING NEWS.

Carl near Cole. Two-story frame; owner, Wm. Lang, Jr.; architect, Emil John; contractors, Schutt & Kreeker; signed, Jan. 17; filed, Jan. 19; cost \$7700.

California near Sansome. Alteration; owner, Josie Guareola; architect, Clinton Day; contractor, J. H. Wilson; signed, Dec. 4; filed, Jan. 31; cost \$3,250.

California street, No. 1919. An annex, theatre and ballroom; owner, M. H. DeYoung; architect, A. Page Brown; contractors, Mahoney Bros.; cost \$10,000.

Commercial and Leidesdorff. Repairs to brick building; owners, Howard Estate; contractor, J. V. Lawrence; cost \$5500.

Commercial bet. Leidesdorff and Sansome. Repairs to brick building; owners, Estate of Capt. Thomas; contractors, Mahoney Bros.; cost \$10,100.

Clayton near Waller. To build; owner, L. F. Crane; architect, John Conant; contractors, McCulloch & Glunz; signed, Jan. 23; filed, Jan. 25; cost \$2655.

Devisadero near Grove. One-story frame; owner, Mrs. M. Moeker; architects, Percy & Hamilton; contractor, J. House; signed, Jan. 24; filed, Jan. 26; cost \$2000.

Ellis and Hollis. Brick, carpenter and mill work, etc.; owner, Blanche Converse; architects, Shea & Shea; contractor, Ed. Mooney; signed, Jan. 15; filed, Jan. 20; cost \$10,570.

Ellis and Hollis. Sewering, plumbing, etc.; owner, Blanche Converse; architects, Shea & Shea; contractor, P. F. Ward; signed, Jan. 15; filed, Jan. 20; cost \$1200.

Elbert bet. Hyde and Leavenworth. Two-story frame; owner, Chas. Grasse; contractor, Geo. Weismann; cost \$3800.

Elbert and Taylor. Two-story frame; owner, F. L. M. Peters; contractors, Dean & Worden; signed, Feb. 1; filed, Feb. 1; cost \$1900.

First near Minna. Three-story brick building; owner, M. Samuel; architect, Emile Depierre; contractors, John Dunphy & Co.; signed, Feb. 2; filed, Feb. 3; cost \$5,300.

Fulton and Webster. Alterations and additions; owner, Elizabeth Moore; contractors, Home Building Co.; signed, Jan. 24; filed, Jan. 26; cost \$3600.

Golden Gate Ave. between Lyon and Lott. To build; owner, Joe. Wurdack; architect, Emil John; day work; cost \$4000.

Golden Gate Ave. near Lott. To build; owner, John N. Macklin; contractor, Arthur Stevens; signed, Jan. 10; filed, Jan. 26; cost \$3320.

Greenwich near Hyde. To build with observatory; owner, Jas. F. Gassmann; contractor, C. A. Henderson; signed, Jan. 18; filed, Jan. 19; cost \$3000.

Greenwich bet. Stockton and Powell. To build; owner, Jane Trubody; contractor, E. A. Thompson; signed, Feb. 2; filed, Feb. 5; cost \$2600.

Howard near 10th. Two-story frame; owner, H. H. Oelling; architects, Townsend & Wyneken; contractor, F. W. Kern; signed, Jan. 12; filed, Jan. 16; cost \$4350.

Howard near 5th. Excavating brick and carpenter work tinning, etc.; owner, H. W. Frank; architects, J. C. and E. A. Mathews; contractor, D. J. Brennan; signed, Feb. 7; filed, Feb. 10; cost \$10,300.

Jackson near Laguna. Carpenter, mill work, etc.; owner, Samuel M. Rosenbaum; architect, Samuel Newson; contractor, Martens J. Gallagher; signed, Jan. 29; filed, Jan. 31; cost \$8650.

Jackson near Laguna. Sowers, plumbing, etc.; owner, Samuel M. Rosenbaum; architect, Samuel Newson; contractor, Samuel Ichelheimer; signed, Feb. 2; filed, Feb. 3; cost \$1413.

Leidesdorff and Clay. Repairs to brick building; owner, E. J. Shattuck; contractor, A. C. Hussey; cost \$1600.

Lott near Golden Gate Ave. A frame dwelling; owner, Mrs. Flora Ellison; architect, J. Cather Newson; contractor, Louis Landler; signed, Jan. 23; filed, Jan. 25; cost \$6,150.

Lombard and Greenwich Alley. Alterations and additions; owner, P. Castagnetto; architects, Townsend & Wyneken; contractor, C. Paff; signed, Feb. 9; signed, Feb. 10; cost \$2700.

Market and Montgomery. Hardware interior; owner, Union Trust Co.; architect, Clinton Day; contractors, Mahoney Bros.; cost \$1600.

Market and Montgomery. To build; owners, Union Trust Co.; architect, Clinton Day; sub-contractor, L. & E. Emanuel; cost \$6150.

Market and Montgomery. Mill work; owner, Union Trust Co.; sub-contractor, Andrew Wilkie; cost \$800.

Pacific Ave. near Laguna. Alterations; owner, J. A. Carlt; architect, T. J. Welsh; contractor, W. F. Wilson; signed, Feb. 2; filed, Feb. 12; cost \$1010.

Pacific Ave. near Laguna. Painting, etc.; owner, J. A. Carlt; architect, T. J. Welsh; contractor, M. J. Donovan; signed, Feb. 9; filed, Feb. 12; cost \$1670.

Pacific Ave. near Octavia. Two-story frame; owner, Mrs. Johanna D. Jolliffe; contractor, Willis Polk; signed, Jan. 25; filed, Jan. 26; cost \$4700.

Pacific Ave. near Laguna. Brick work, art stone, etc.; owner, J. A. Carlt; architect, T. J. Welsh; contractor, J. W. Smith; signed, Jan. 31; filed, Jan. 31; cost \$7385.

Post near Leavenworth. Painting, etc.; owners, S. F. Verein Association; architects, Salfeld & Kohlberg; contractor, H. F. Wagner; signed, Jan. 11; filed, Jan. 18; cost \$2350.

Powell and Jackson. To build; owner, Second African Methodist Church; architect, H. Gelfuss; contractors, Brucher & Griffith; signed, Jan. 20; filed, Jan. 20; cost \$4705.

Pine near Buchanan. To build; owner, Louis Erclander; architect, J. F. Sherman; contractors, Currie & Loomer; signed, Feb. 5; filed, Feb. 6; cost \$3825.

Powell bet. O'Farrell and Geary. Alterations; owner, Geo. B. Tay; contractor, Wm. Little; cost \$4250.

Scott near Page. To build; owner, Geo. H. Luchsinger; architect, H. Gelfuss; contractors, Schutte & Kreeker; signed, Jan. 20; filed, Jan. 20; cost \$3500.

Tremont Ave. near Fredrick. One-story cottage; owner, Geo. Offerman; architect, Emil John; contractors, J. A. McDonald & McDonald; signed, Feb. 2; filed, Feb. 8; cost \$2000.

Van Ness Ave. and Myrtle. Painting and tinning; owner, C. F. Buckley; architect, M. J. Lyon; contractor, L. J. Dwyer; signed, Feb. 6; filed, Feb. 10; cost \$2393.

Van Ness Ave. and Myrtle Ave. Grading, concrete foundation, brickwork, etc.; owner, C. F. Buckley; architect, M. J. Lyon; contractors, Martin & James Fennell; signed, Feb. 6; filed, Feb. 8; cost \$7250.

Van Ness Ave. and Myrtle Ave. Plumbing, etc.; architect, M. J. Lyon; contractors, Ford Bros.; signed, Feb. 6; filed, Feb. 8; cost \$2000.

Van Ness Ave. and Myrtle Ave. Carpenter and iron work; owner, C. F. Buckley; architect, M. J. Lyon; contractors, Wm. Knowles and Geo. Reichley; signed, Feb. 6; filed, Feb. 8; cost \$26,000.

Vallejo near Buchanan. To build; owner, Louis Holy; architect, H. Gelfuss; contractor, James McLean; signed, Feb. 2; filed, Feb. 2; cost \$4194.

Virginia near California Ave. One-story frame; owner, E. Powers; contractor, James J. O'Brien; signed, Jan. 19; filed, Jan. 19; cost \$1200.

Virginia near California Ave. One-story frame; owner, Michael Mahoney; contractor, James J. O'Brien; signed, Dec. 2; filed, Jan. 19; cost \$1200.

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SAN FRANCISCO, CAL., U. S. A.

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NUMBER 3.

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OLIVER EVERETT, Secretary.

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6 inch.....	6 00	24 00	45 00	78 00
7 inch.....	7 00	28 00	52 50	91 00
8 inch.....	8 00	32 00	60 00	104 00
9 inch.....	9 00	36 00	67 50	117 00
10 inch.....	10 00	40 00	75 00	130 00



THE American Institute of Architects has been making strenuous efforts to bring about a reform in the Government's method of designing and erecting the Federal buildings of this country.

The Secretary of the Treasury, has at present, control of all buildings of this class, and the actual work is done by a bureau in charge of a Supervising Architect.

At the earnest solicitation of the American Institute of Architects, Secretary Carlisle promised the Committee that waited on him, that he would try the competitive method if Congress would authorize it; so the Committee prepared a bill and the last Congress made it law, authorizing the Hon. Secretary of the Treasury to procure designs for public buildings through public competitions, as advocated by the Institute.

No action was taken under this authorization. Not long ago the Government had occasion to erect a public building in Buffalo. The design adopted was severely criticized by the Buffalo Chapter of the Institute who protested against the adoption of a design which they characterized as unsuitable and unworthy of the purpose for which it was designed and the occasion was taken by President Burnham of the Institute, to urge on Secretary Carlisle the exercise of his prerogative.

Secretary Carlisle has positively refused to do so, and the reform appears to be no nearer realization than before.

This refusal of the Secretary to take action in the matter

is really discouraging—the evils of the present system are admitted, but instead of trying to ameliorate them, the authorities seem determined to plod along in the old way.

The Institute has endeavored for years to secure proper recognition for the noble art of architecture, and is bound to succeed in the end.

In the mean time it is justly indignant that its exertions have met with no better appreciation by the government officials, and in concluding the correspondence with the Secretary of the Treasury concerning the law as it now exists, President Burnham uses this sentence:

"You now inform us, in effect, that the law must be amended before you will act under it. I can see but one amendment which is needed to insure the satisfactory working of this measure; i. e., the introduction of a clause ordering the Secretary of the Treasury to carry out its plain intent and purpose, and not leaving it to his discretion."

The Hon. Secretary of the Treasury seems to consider the method that has produced some of the noblest monuments of the old world, as not worthy of trial in this country, and refuses to learn through the experiences of other nations.

We have no intention of reflecting on the professional ability of the incumbents of the office of Supervising Office of the Treasury, past or present, they have undoubtedly done the best they could under the unfavorable circumstances in which they work.

But think of it! Is it not ridiculous to expect that any one man is able of attending to and designing and erecting all the public building necessitated by the requirements of

a nation of sixty millions—even the layman should see the absurdity of expecting any one man, no matter how capable, to achieve such a task in as satisfactory a manner, as if the combined abilities of the foremost men in the profession were employed to the same end.

We extend to the American Institute of Architects our hearty good wishes and encouragement in their work of securing fitting recognition for a noble art, that was better appreciated centuries ago by an earlier, and we regret to think, possibly a more enlightened civilization.

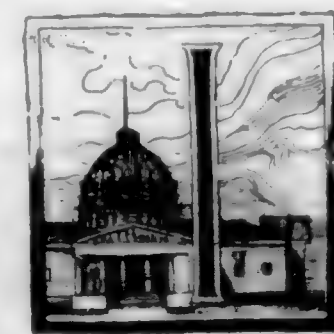
FUTURE SUPPLY OF SKILLED LABOR IN THE BUILDING TRADES.

RESIDENT Hersey, in his address at the recent convention of the National Association of Builders, in Boston, pays much attention to the question of future supply of skilled labor in the building trades. He bewails the decay of the apprentice system, and favors among other remedies, the establishment of trades schools. It is to be hoped that so much of the address may bear fruit in inclining some of our wealthy people who are desirous of leaving monuments of their philanthropy, to see in this comparatively new field a chance to do the right thing. It is high time that charitably disposed people inquire if there are not other and more promising openings for their bequests than hospitals and so-called higher institutions of learning. It is true that the public schools are doing more than formerly in the direction of manual training, but it is impossible for them to do much in the way of serious preparation for the shop. Manual training is to be encouraged as helping in the direction of a better balanced education, or at the worst, as a recreation to the pupil. It cannot teach how to do the work required in the trades. Some very limited attempts to revive the apprentice system have of late been made with fair success, but there is slight chance of the revival becoming general. Trade schools have not as yet been sufficiently tested to have established an unassailable reputation, but there is a pretty general belief that they must be pretty poor not to be an improvement on the present state of things. In a sense, much less is required of a mechanic now than formerly, so much machinery, and so much specialization of work being the order of the day. Naturally enough one would expect to get a higher order of work from men of whom but a few things were required; but the expectation is not borne out in the building trades of to-day. The architect, if a good superintendent of construction, finds it necessary to establish a sort of trades school on a considerable percentage of his buildings. From the laying of the footing stones to the finishing of the building, he finds men, who, with drawings and specifications before them, and with plenty of the best of building materials, will not get good results without much special effort on his part in the way of actual teaching. It certainly was different under the old system of apprenticeship, for a mechanic who was "dragged up" as a "cub" in those days certainly knew how to do a good many things well. While an apprentice, he was usually taken in hand by a journeyman, who while he required a great deal of drudgery, took a commendable pride in seeing that he got into the way of doing things well, and once being able to do a thing properly it was not advisable for him to relapse. It was then a merit to get a good job out of indifferent materials, whereas now one is so often discouraged in attempts to get good work from men provided with the best of materials. With so much better scientific knowledge at our disposal than formerly, the whys and wherefores may be

placed at the disposal of the pupils of trades schools, and along with the reasons for good work, a degree of skill may be taught that will be very helpful. If we may reason from the results of the schools in departments of design, trade schools cannot come too soon. As to President Hersey's other principal remedy for the degradation of skilled labor, the stopping of foreign immigration, he would have done well to give the subject more careful study, and not to have proposed it at all. The effect of the discontinuation of immigration would be very likely to leave us in a position to see some of our own shortcomings a little better, perhaps, which would be well enough in its way, although not exactly what we most desire; but it would, we fancy, leave us very short of help as a general thing. As the case now stands we would in a normal business season be at a great loss to carry on the building operations of the country if we were to insist on using only native workmen, who, although they may be very superior to all others, may certainly learn some things yet, even from those of foreign birth who do so much of the skilled work about buildings, and many of whom certainly rank well in their several trades.—*The Architect, Builder and Decorator.*

DETAILING OF THE ROOF TRUSSES FOR THE MANUFACTURERS AND LIBERAL ARTS BUILDING, CALIFORNIA MIDWINTER FAIR.

BY D. E. CONDON, M. E., C. E., A. M. INST. C. E.,
MILLS BUILDING, SAN FRANCISCO.



IN dimensioning the various members of the roof trusses designed for the Manufacturers and Liberal Arts Building of the California Midwinter Fair, and proportioning their connections, the primary essentials were:

FIRST—A determination of the strains due to the *dead loading*; that is to say the entire weight of the roof material, purlins, etc., in one panel or space between two trusses, including the weight of one truss itself, regarded as symmetrically distributed.

SECOND—A determination of the strains due to the probable maximum *wind force* acting on one side of the roof surface.

THIRD—A determination of the maximum strains due to the *combined* action of the dead loading and wind force.

There are seventeen trusses in the entire length of the building, spaced twenty-two feet between centres, and twenty-two feet between each end truss and the adjoining gable.

The roof proper is a cylindrical surface of inch boarding, broken at the crown by a skylight; and its weight is carried to the trusses by means of 4"x12" purlins over twenty-two feet long and spaced two and a half feet between centres.

The *dead loading* was estimated at twenty pounds per square foot of roof surface, and the resulting *dead loads* at the upper panel points A, B, C, D, E, D', C', B', A' (see accompanying diagram of truss) were determined accordingly. The corresponding strains were then computed.

The *wind force* (acting horizontally) was taken at a maximum of thirty pounds per square foot on a plane surface at right angles to its direction; and on this basis the *magnitudes and directions* of the resultant wind forces at the upper panel points A, B, C, D, E, on the wind side were also determined. The strains due to these forces were then computed for the various members both on the wind and lee sides.

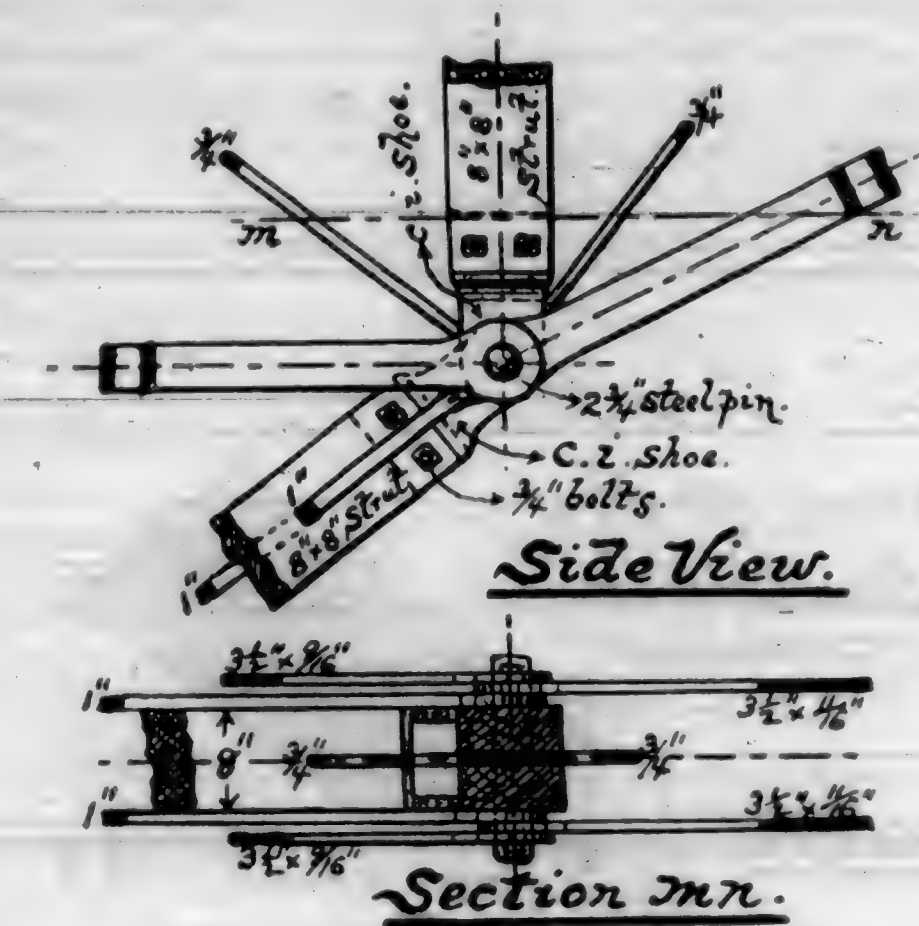
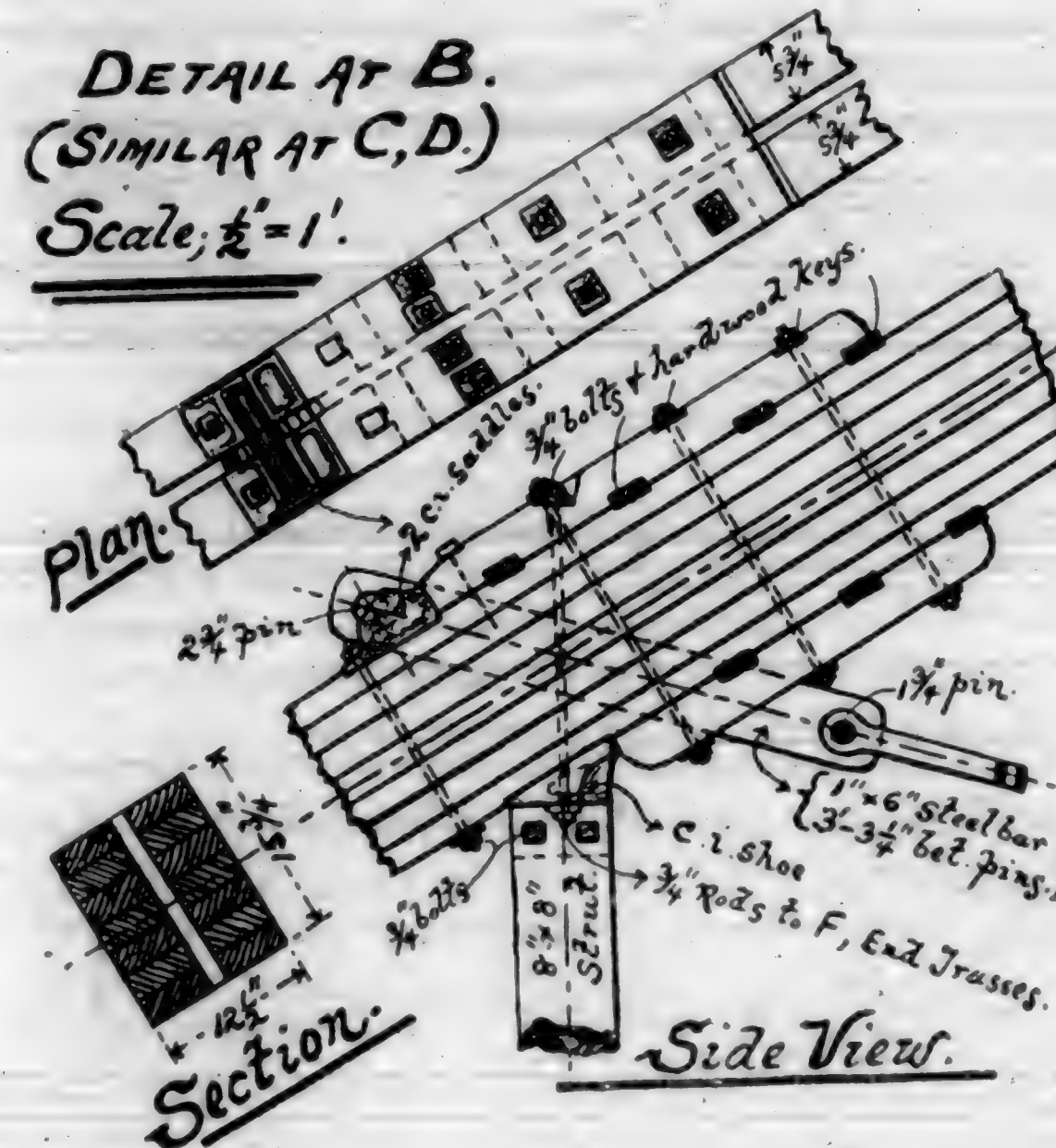
By a proper combination of the latter strains with the dead load strains, the *maximum tensile and compressive*

strains to be provided for in designing the various members and their connections were arrived at.

All the compression members were made of white pine wood.

The top A C E C' A' (commonly called "upper chord," after the corresponding member or upper flange of girders) was designed to directly sustain the roof purlins, and consequently had to be made circular. The material used being wood it became necessary to form the arc of a laminated or built beam, with scantlings of thickness and length properly proportioned to the curvature, breaking joint and bolted together every two feet. See annexed *Detail at B.*

DETAIL AT B.
(SIMILAR AT C, D)
Scale, $\frac{1}{2}''=1'$.



DETAIL AT F. Scale, $\frac{1}{2}''=1'$.

The vertical struts M L, M' L' were not provided with a cast-iron shoe at upper end; but the end was gained one-half inch into lower lamina, and tenoned between the two halves of the laminated beam. The lower end of each of these struts was provided with a cast-iron shoe, similar to that at F, G, H, K, (but smaller, $\frac{3}{4}''$ metal) with a $1\frac{1}{4}''$ pin connecting all the tension members at the point.

The oblique struts F P, F' P' were provided with a cast-iron shoe at upper end, same as that at the lower end of the vertical strut at same points, only the projecting eye-ribs are six inches apart. The lower end of each of these struts has no cast-iron shoe, but is gained into and secured between the two 12"x12" upright posts (six inches apart) of the side frame-work.

All the main tension members were made of steel—flat eye-bars and rods—each proportioned to its maximum strain, with a factor of safety of about three (3) within the elastic limit of the material.

The secondary bracing members (a F, F b, etc.) were all made of $\frac{3}{4}''$ wrought-iron rods.

The connection of the members at the various points were all made by means of turned steel pins properly proportioned to the maximum shearing and bending strains.

The connection between the diagonal tension members and laminated beam at B, C, D were made by means of a flat steel bar (1"x6", 3'3 1/4" between pin centres) with pin connection between the two member-flats at its lower end, and a pin bearing on two cast-iron saddles at its upper end. See *Detail at B.* The bar passes up between the two halves of beam, and each saddle is slightly gained into and bolted to the half-beam on which it is secured. The component tendencies to sliding along the beam, of the saddles and upper shoe of strut, are mainly counteracted by means of two pieces of wood extending across, and bolted through and keyed to, the two halves of beam. The upper piece has its end opposed to the faces of the saddles, and the lower one has its end opposed to the face of strut shoe. Each saddle is prevented from side movement at the same time by the bolt at its back end, and a projection at the face end which enters the upper lamina of beam.

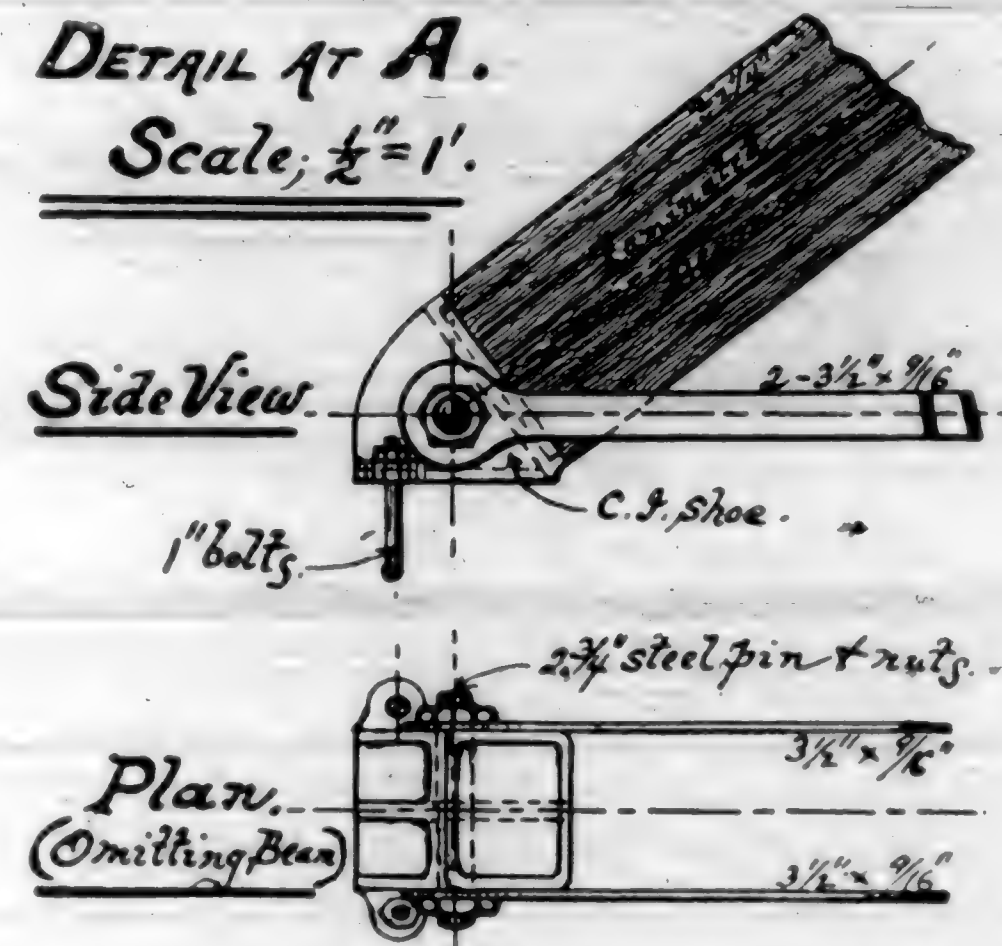
The connection at the crown E is somewhat different.

The lower end of each of these struts was also provided with a cast-iron shoe, similarly bolted to the strut, and having two sufficiently strong webs or ribs (1" metal) projecting

The steel bars are only $\frac{1}{2}$ " thick, but with the same distance ($3\frac{3}{4}$ " between pin centres and the cast-iron saddles are smaller. See Detail at E.

The connections between the vertical main and secondary tie rods, and the laminated beam were made by means of nuts at ends of rods, with wrought-iron washers seated on and secured to the upper side of beam.

The ends (A, A') of the laminated beam were provided with cast-iron shoe bearings, with pin connection to tension members; and the shoes were firmly bolted down to the supporting frame work. Annexed Detail at A.



All the roof purlins were secured to the laminated beam of the trusses, and the beams of all the trusses were connected by a system of $\frac{3}{4}$ " diagonal tie rods.

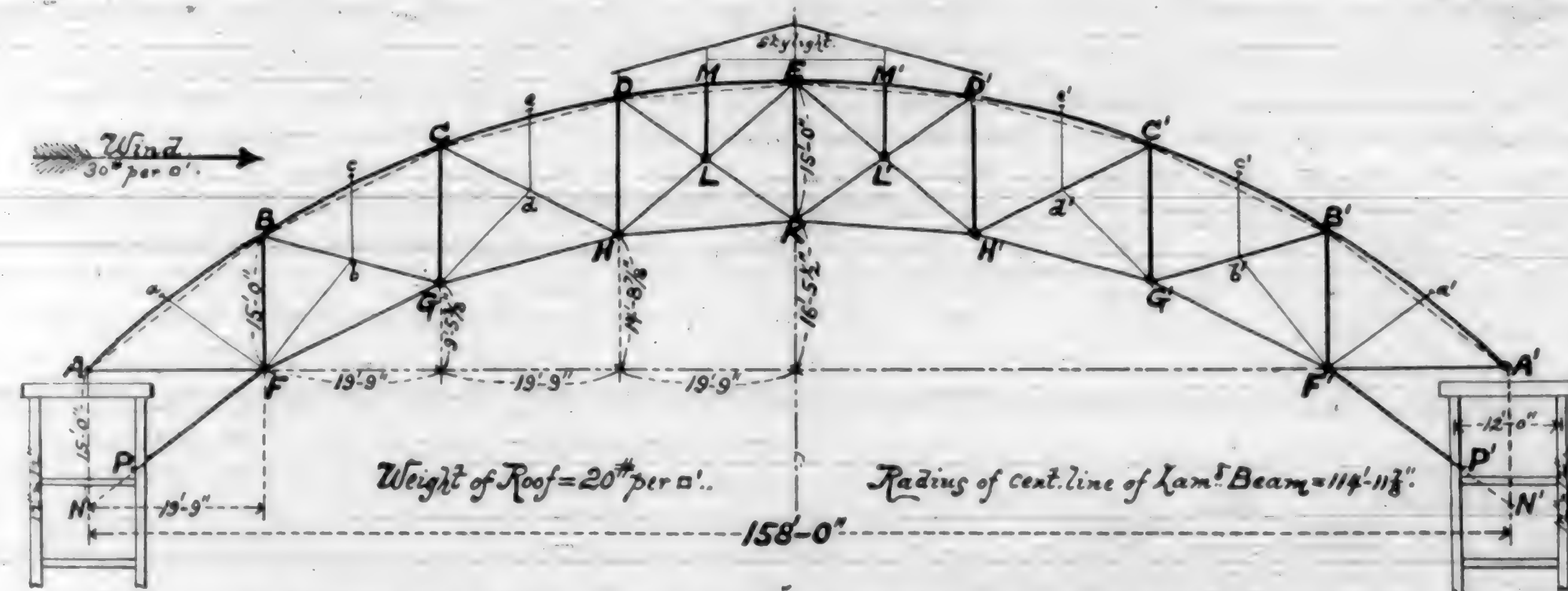


DIAGRAM OF ROOF TRUSS - MANUFACTURES & LIBERAL ARTS BUILDING, CALIFORNIA MID-WINTER FAIR.

MAIN BRACING MEMBERS, DIMENSIONS AND LENGTHS.

AF, 2 eye-bar flats, $3\frac{1}{2}$ " x 9-16", 19'9"	between pin centres
FG, " " $3\frac{1}{2}$ " x 11-16", 21'10 11-16"	" "
GH, " " $3\frac{1}{2}$ " x 15-16", 20'5 3-8"	" "
HK, " " $3\frac{1}{2}$ " x 15-16", 19'9 3-8"	" "
BG, " " 2" x 9-16", 18'6"	" "
CH, " " 2" x 1-2", 20'0"	" "
DL, " " 2" x 1-2", 9'10 13-16"	" "
LK, " " 2" x 7-16", 11'10 13-16"	" "
LE, " " 2" x 7-16", 10'11"	" "
HL, one 1" rod, with turnbuckle, 12'11 1-4"	" "
BF, CG, 8"x8" strut for the fifteen intermediate trusses,	

with two $\frac{3}{4}$ " rods, 16'3" long between pin centre and screw ends, one on each side of strut, for the two end trusses, to provide for gable bracing.

DH, EK, 8"x8" strut, with two $\frac{3}{4}$ " rods, 16'3" long between pin centre and screw ends, one on each side of strut, for all seventeen trusses.

ML, 6"x6" strut, with two $\frac{5}{8}$ " rods, 8'10" long between pin centre and screw ends, one on each side of strut, for all seventeen trusses.

FP, 8"x8" strut, with two 1" rods, 18'5" long between pin centre and screw ends, one on each side of strut, for all seventeen trusses. The ends of the rods are provided with cast-iron bevel washers bearing on the inside of the two 12"x12" upright posts of the frame-work.

SECONDARY BRACING MEMBERS, DIMENSIONS AND LENGTHS

With pin connections at b, d, etc., between and independent of the main flat bars at these points.

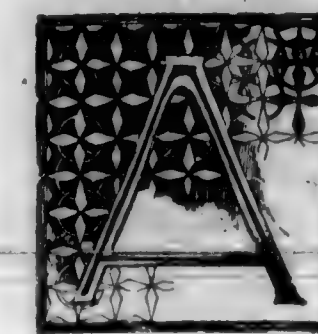
aF, one $\frac{3}{4}$ " rod, 13'11"	between pin centre and screw end.
Fb, " " 15'8 37-64"	between pin centres.
bG, " " 10' 33-32"	" "
bc, " " 8'10"	between pin centre and screw end, with forked end at b.
Gd, " " 14'1 29-32"	between pin centres.
dH, " " 11'0 3-64"	" "
de, " " 8'10"	between pin centre and screw end, with forked end at d.

The gable bracing will be described in next issue.

The California Architect has published some plates of the buildings of the Midwinter Fair that exceed anything done by their Eastern contemporaries during the World's Fair. The work is most creditable, and the pictures in one number worth the subscription for a year. We, in common with all

interested with journalism on this Coast, feel a pride in the California Architect. It is made up in a manner that blends taste with the utilitarian in an art that more than any other depends upon an interchange of ideas and thought in an art that is universal, and for that reason, one that restrains the selfish idea of exclusiveness, widens views, and leads to a higher civilization. It is, moreover, marching with rapid strides into the field of computable quantities. The taste that provides external grace remains, but added to this comes the internal engineering problems of electrical apparatus, elevators, provision for steam power, general heating, with many other elements added in the last few years. — Industry.

THE OWNERSHIP OF DRAWINGS MADE FOR AND BY AN ARCHITECT.*



LETTER is a document which, by means of words, attempts to supply to the reader some information from the writer; even after signature this, until delivery to the Post-office, or until delivery by some other means (the difficulties respecting a letter in transitu need not here be discussed), is held to be the absolute property of the writer, unless by agreement he has previously parted with that property. After delivery (if there has been no such agreement), either party may by injunction prevent the publication of the document; but before proceeding to that step, in cases where the Post-office is not the medium of transmission, the delivery to the reader or to an agent specially appointed by him to receive the document must be proved by the recipient. An architect's drawing has the nature of a written document, and is invested with all the qualities of a letter, as soon as it has received his signature, or the formula, "To be returned to the office of A. B.," etc., or even "From the office of A. B.," etc. A drawing is any combination of two or more lines which expresses form more clearly than any amount of description could do. In exception to this definition, some persons might produce copies of photographic pictures, and inquire where the lines are to be seen; others might bring forward shadowed representations of buildings in which no lines appear. The reply is, that no man could have made such a copy or such shadowed drawings without first drawing the lines, which have subsequently been erased.

Architectural drawings are technically known as "sketches" of plans, or sections, or elevations, or perspective views; Draught. (this term is nearly obsolete, because the words "rough plan," etc., are too generally used in an office for "rough draught of plan," etc.), and sometimes scaled to a modulus; General Drawings, always scaled to a foot; Detail Drawings, either at full-size or at an aliquot part of that size; Show Drawings, for exhibition to the client, to the architect's friends and to the public; a drawing in any one of these classes may be either "rough" or "finished," but is not necessarily an original design—the words "design" and "drawing" are so frequently used with indifference as to their separate meanings, that it may be useful here to insist that a design means a project, an idea, which may be very good although expressed in a bad drawing, just as, on the contrary, good drawing may be wasted upon a bad design; and copies or repetitions, which may be either counter-drawn by transfer, or duplicates by tracing or by using the rule and compasses, or enlarged or diminished copies produced by hand or by machinery. The term "Working-drawings" once meant the general drawings drawn so large as to show construction, or to admit of minute dimensions to save mistakes by workmen unused to scales; but now all detail drawings may be included. As to Original Drawings, all from which copies are made are original; however, since an assistant's work has been allowed to pass under the master's name, an original drawing by the master is one which he has himself made. Competition Drawings are finished general (and sometimes detail) drawings submitted in competition with other architects; in a few exceptional cases drawings of the design to a small scale have been at first required, and a selection has been sealed, for verification by the adver-

* During the period when the important subject of the ownership of drawings was under consideration—a question raised by the demand made by the Office of H. M. Works, etc., on the late Edward Barry, for the drawings made by his father in carrying out the designs for the House of Parliament—my brother the late John W. Papworth, undertook to collect the views generally held by members of the profession, and wrote them out with comments. His notes, which were found, at his death, among numerous other papers in his desk, are given in the above posthumous article. See for other articles on this subject, Vol. VIII, N. S., (Journal of the R. I. B. A.), pp. 109, 188, 231, 254, 404.—WYATT PAPWORTH.

tising body, from which the larger drawings have been made, and again submitted in final competition. Prize drawings are the successful Competition drawings, although the present day speaks of "premiated prize-drawings" when the competition has been made as a scholastic exercise for a small sum of money, or for a medal, or for books, etc., commonly called a "prize."

When the conditions of competition include a provision that the prize-drawings shall become the property of the donor of the premium, without the addition of words to the effect of "on delivery of the premium," the architect enters into a speculation of making drawings for approval, purchase and payment. The drawings on approval become the property of the donor of the premium, who in the present state of the law of artistic copyright has the power to sell, or lend, or publish them forthwith, without fear of any interference on the part of the architect, who must formally sue the donor for the premium as a debt, unless the architect by some indiscretion has deprived himself even of that remedy.

It is clear that a body corporate having a common seal may advertise for competition designs, receive them, approve two or more sets of drawings, and refuse to proceed to the adjudication of the premiums (on the ground that the advertisement was not a copy of a contract made under seal) until a more satisfactory opportunity; yet the architects cannot compel the body corporate to return the approved drawings; and it is doubtful whether they could compel them to proceed forthwith to adjudication and payment; yet the drawings would be legally in possession of the corporation, if not legally its absolute property.

The drawings made by an architect's assistant in the architect's office absolutely belong to the architect until he parts with his property in them, and this whether the assistant be paid (even if there be a debt due to him in respect thereof) or otherwise. This property depends on the fact that the drawings are made on paper, or vellum, etc., provided by the architect. Hence the clause in Articles of Pupilage that the pupil is to provide all instruments and materials except paper.

The drawings made by an architect's assistant out of the office, for the architect, absolutely belong to the architect until he parts with his property in them, even before he has paid to the assistant the price of the work. This property may arise in one of two ways: either the drawings are made on paper or vellum, etc., provided by the architect, in the same manner as a solicitor supplies to his surveyor the parchments on which the surveyor is to make duplicate drawings; or else the drawings have been made on paper or vellum, etc., provided by the assistant, and the architect, by agreeing to have them, acquires the property in them; but, in both cases, the assistant has a lien upon the drawings, or any part of them, for the whole price, unless he has agreed to receive the price at a future day, or takes security for the debt.

Not to omit what may at first sight seem to be an almost extinct branch of the subject, it may be observed that a century or more since, when vellum was more used, paper much dearer, and assistance perhaps worse remunerated than at present, agreements as to the usefulness of assistant's work were settled by destroying the material, a habit said to have been preserved to his later years by Sir John Soane, who did not hesitate to ask the assistant for his penknife, with which Soane reduced, at two diagonal cuts, the drawing into four triangles. Even now, the destruction of a pupil's drawing is taken as the strongest mark of the architect's disapproval. But, of late years, the principle *caveat emptor* has been so triumphant that if the architect does not take care too see satisfactory samples of his proposed assistant's skill, he had better not refuse an unsatisfactory drawing, but, (after pointing out the defects and getting them rectified as much as possible) accept, without manifesting displeasure, the finished work which is tendered to him. And if the architect, during the progress of work done out of the office, should see evidence of carelessness, incapacity or ignorance, he had better say that the drawing at that stage will suit his purpose, as if it were completed; and, upon payment even of the price originally fixed, withdraw it. To leave a drawing under a continuous lien is not satisfactory.

To be Continued.



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.

E VANGELICAL Swedish Mission Church, Jessie street, Seth Babson, Architect.

H N Entrance by J. H. Powers.

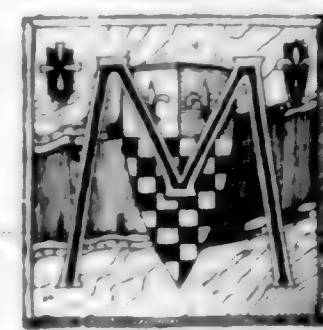
C HATEAU Chevalier Wine cellar, St. Helena, Oliver Everett, Architect.

H Dwelling, Percy & Hamilton, Architects.

INTER-OCEANIC SHIP-CANAL COMMUNICATION BY THE AMERICAN ISTHMUS.

ITS GEOGRAPHIC AND ECONOMIC RELATIONS TOWARDS THE UNITED STATES.

Portions of a paper read by N. J. MANSON before the Technical Society of the Pacific Coast, July 7th, 1883.



R. President, during the past year, I have expressed through the press some views and opinions upon the subject of inter-oceanic communication. A few of the members of your Society expressed the regret that one of my articles had not been read before this Society. In accordance with a promise made at that time I appear before you to-night asking your indulgence.

"Commerce loves the sea, but it depends for life and health on the land. It derives its sustenance from the rivers and the basins which they drain, and increases the opulence of nations in proportion to the facilities of intercourse which those nations have with the outlets of such basins.

"The three great outlets of commerce, the delta of the Mississippi, the Hudson and the Amazon, are all within 2,000 miles, ten days' sail of Darien. It is the barrier which separates us from 600 millions of people. Break it down and the Atlantic Coast of the United States and the Gulf of Mexico become the focus of the world's commerce." * *

ELEVATIONS AND WIDTHS OF THE ISTHMUS AT POSSIBLE POINTS OF TRANSIT.

The American Isthmus is for nearly its whole extent a ridge of the Cordilleras. From Tehuantepec, where it joins the expanse of North America, to the Gulf of Darien, where it joins South America, it is in length about 1,230 miles. Its width is out of all proportion to its length. It is more essentially an isthmus than any other narrow neck of land on the globe. If we will compare the mean of the widths of the Isthmus, at Tehuantepec, 143 miles; at Honduras, 161 miles; at Nicaragua, 169 miles; at Panama, 47½ miles; at San Blas, 30 miles, they will give for the breadth of the Isthmus about one-eleventh of its length. Its lowest eleva-

tions above sea level, at possible points of inter-oceanic transit, are at Tehuantepec, 754 feet; at Honduras, 2,000 to 3,000 feet; at Nicaragua, 153 feet; at Panama, 287 feet; at San Blas, 1,142 feet; at Caledonia, 1,003 feet; at the Truando-Atrato, 950 feet; at the Napipi Atrato, 778 feet; at the Tuyra-Peranchita, 808 feet. The last five routes are all so mountainous and elevated as to require tunneling from six to ten miles in length. The entire Isthmus has been called an immense causeway, separating the seas while uniting the continents. It is worthy of thoughtful consideration that while the African Isthmus, Suez, is but the center of the Old Continents, the American Isthmus is the center of the oceans.

The opening of navigation through Suez gave a short route inland for Western Europe to the east of the Old Continent. Should this nation, as a nation, open and render free a strait across Central America, we not only join the oceans embracing our country, but we open the two halves of the globe to the enterprise of our people, and there will be accomplished for the people of the United States the most ample and far-reaching achievement of civilization since the creation of the world; or, to quote Humboldt and Maury, an epoch in the history of the universe will stand distinctly marked, and it may be added, that should this channel be permitted to be opened in any other way than by a free, an enlightened, and a liberal nation, its natural guardian and custodian, the clock of the world and of civilization will be turned backward one century at least. * *

SURVEYS OF THE WHOLE ISTHMUS DIRECTLY BY THE GOVERNMENT.

The Government of the United States, realizing the full importance of an inter-oceanic canal, and acting upon the report of Rear Admiral Davis, sent into Central America its most experienced navigators and engineers, and it expended, in its surveys and explorations, according to De Lesseps, no less than \$5,000,000.—*North American Review*, Vol. 130, page 1.

A general attack, in an engineering way, upon all the possible lines of canal transit seems to have been determined upon by Congress.

I. In the first place, Congress caused an instrumental reconnaissance of the Isthmus of Tehuantepec to be made by Captain Shufeld in 1872.

II. In the same year Congress caused to be made, by Commander E. P. Lull, U. S. N., an examination, survey, and definite instrumental location of an inter-ocean canal route from the vicinity of Graytown, via Lake Nicaragua, and thence via the rivers Medio and Grande to Brito on the Pacific Coast. As supplemental to this survey some preliminary observations were made in 1872 by Commander Chester Hatfield, U. S. N.

III. It caused to be made an examination and instrumental survey of an inter-oceanic canal route from Navy Bay to Panama by Commander E. P. Lull, U. S. N., in 1875.

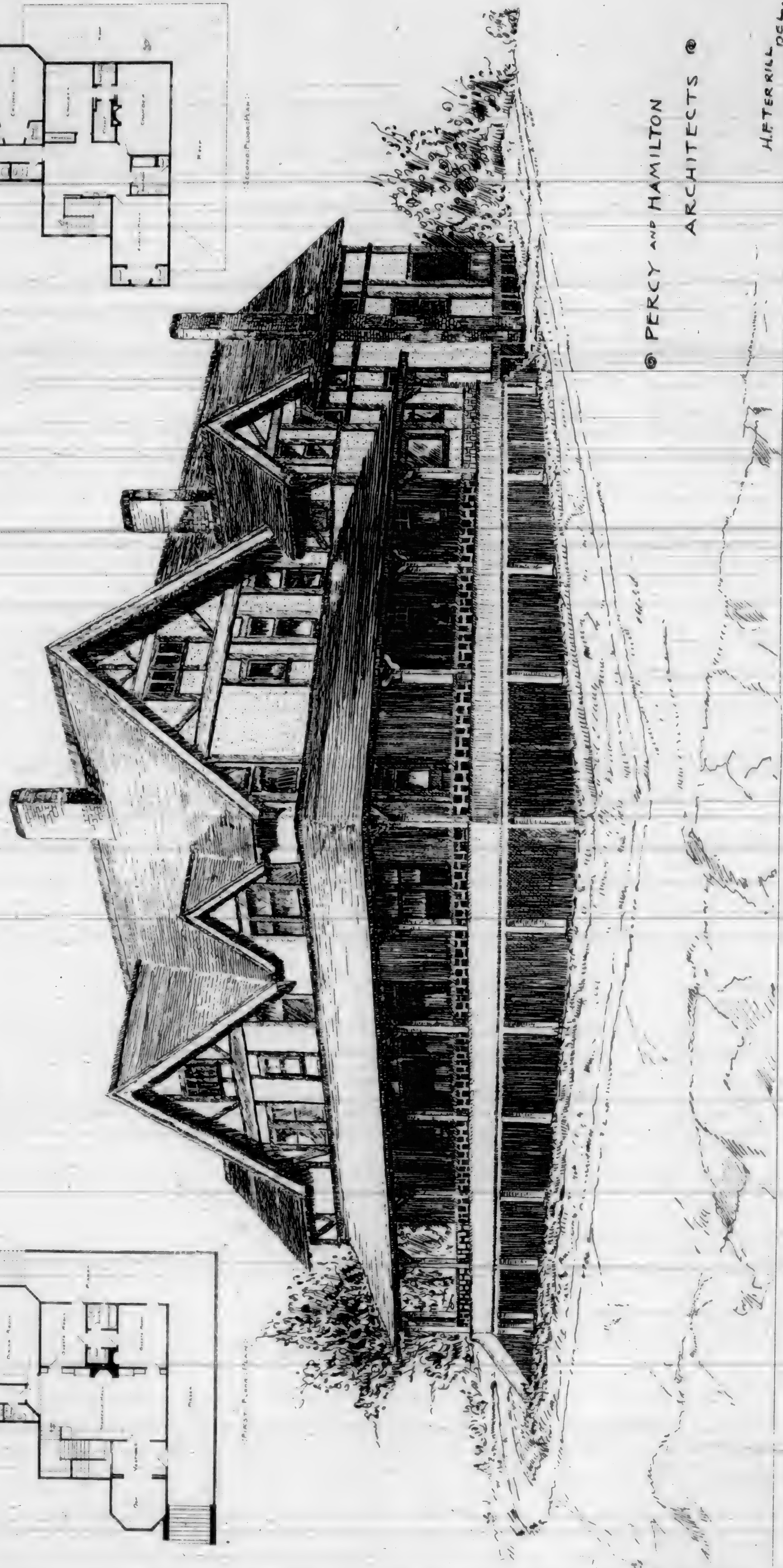
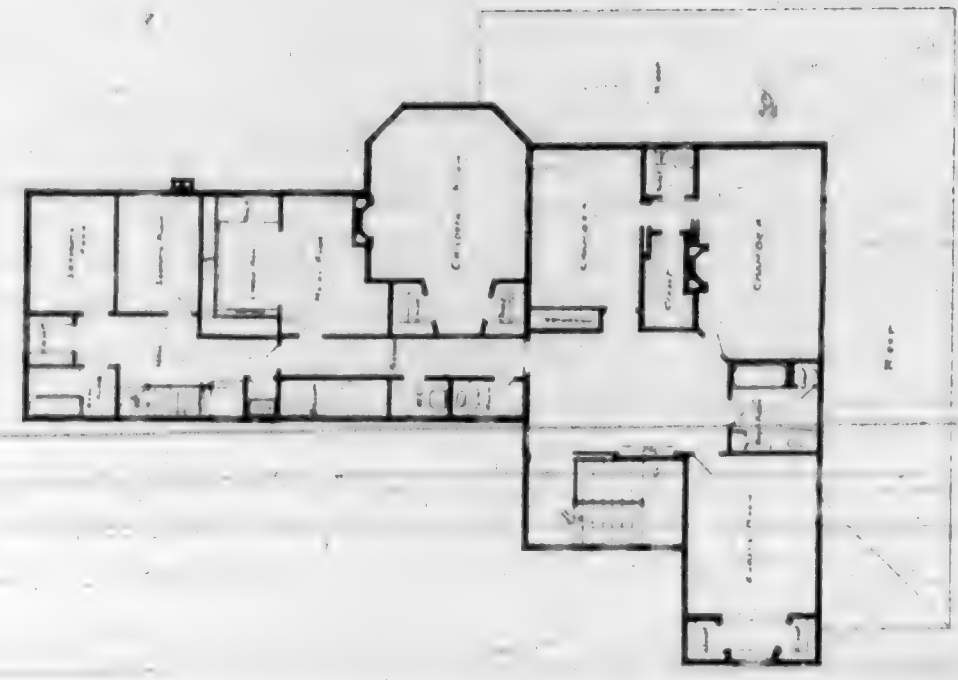
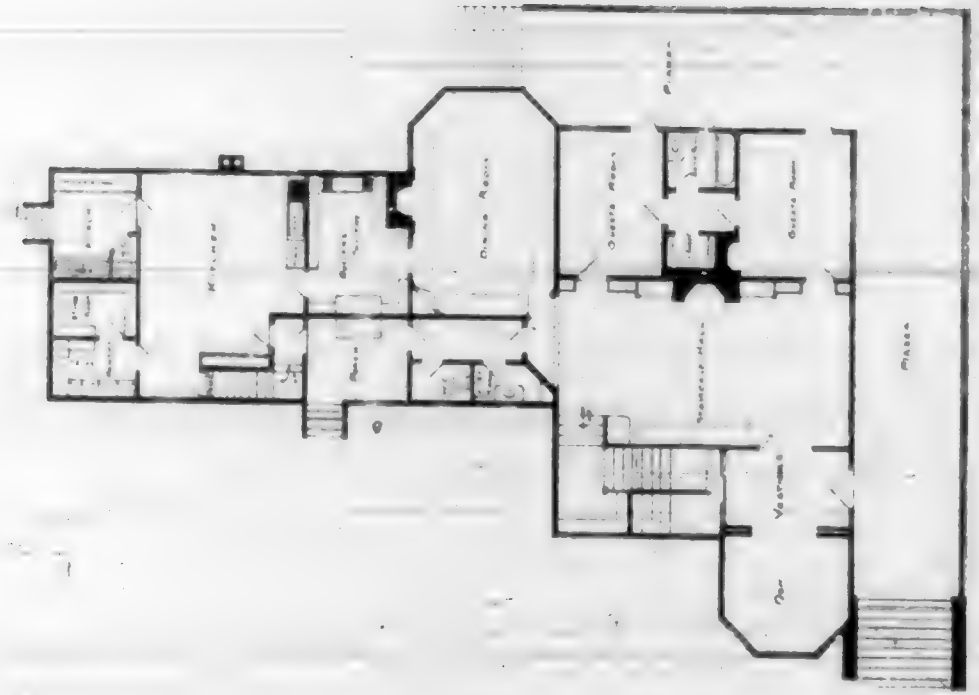
IV. It ordered and caused to be made examinations and surveys from the Gulf of San Blas toward the River Chepo by Commander T. O. Selfridge, U. S. N., in 1870, and caused reconnaissances to be made from the waters of the Chepo towards the Gulf of San Blas by Commander E. P. Lull, in 1875.

V. Under its direction several tentative instrumental surveys in the vicinity of Caledonia Bay, across the Cordilleras, were made by parties under the direction of Commander T. O. Selfridge, U. S. N., 1871.

VI. It caused a barometrical reconnaissance to be made of the "De Puydt Route" by way of the Tenala River, between the Tuyra and Atrato, by a party under the direction of Commander T. O. Selfridge, U. S. N., 1871.

VII. Tentative instrumental lines by the so-called Gorgoza route, from the east coast by way of the Atrato Caracica and Peranchita Rivers, from the west coast via the Tuyra and Cue Rivers across the divide, were made by parties under the direction of Commander T. O. Selfridge, U. S. N., 1871.

VIII. An instrumental examination was made of what is known as the Truando Route by Lieutenants Michler, U. S. A., and Craven, U. S. N., 1856-7. This survey was sup-



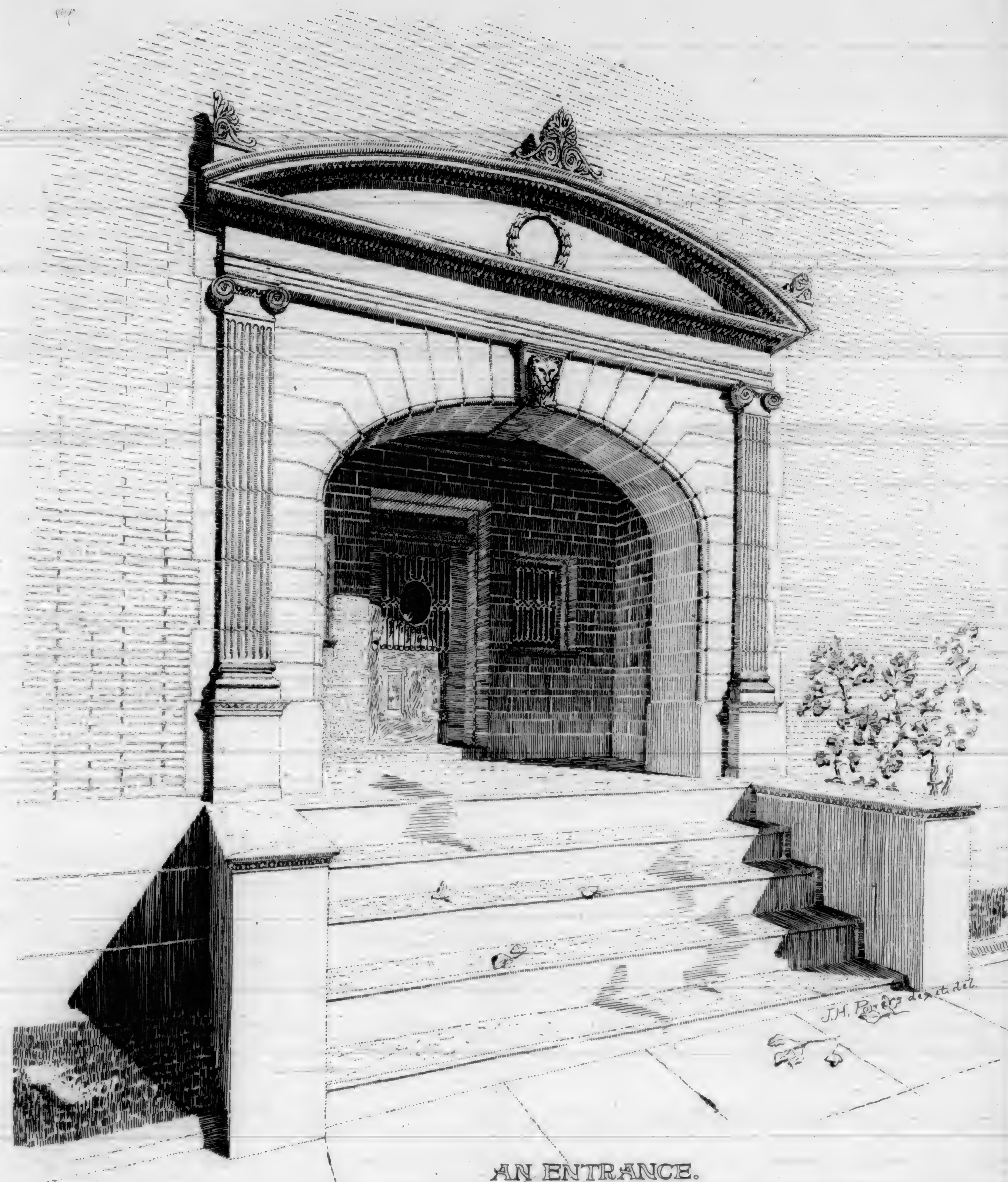
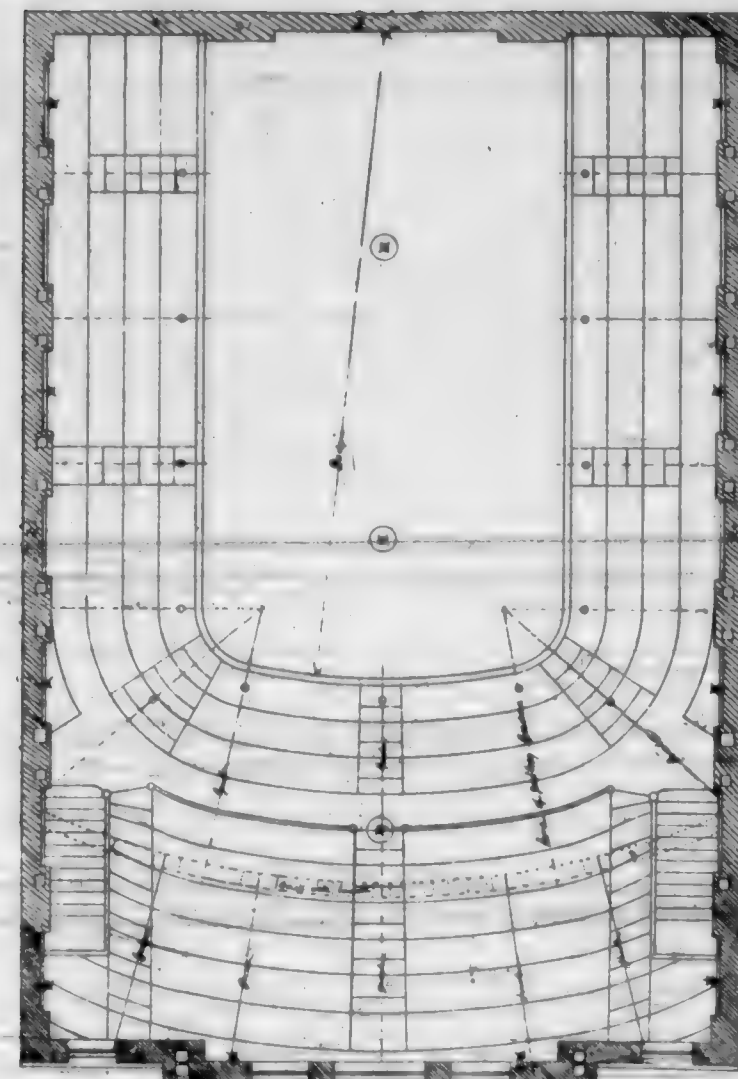
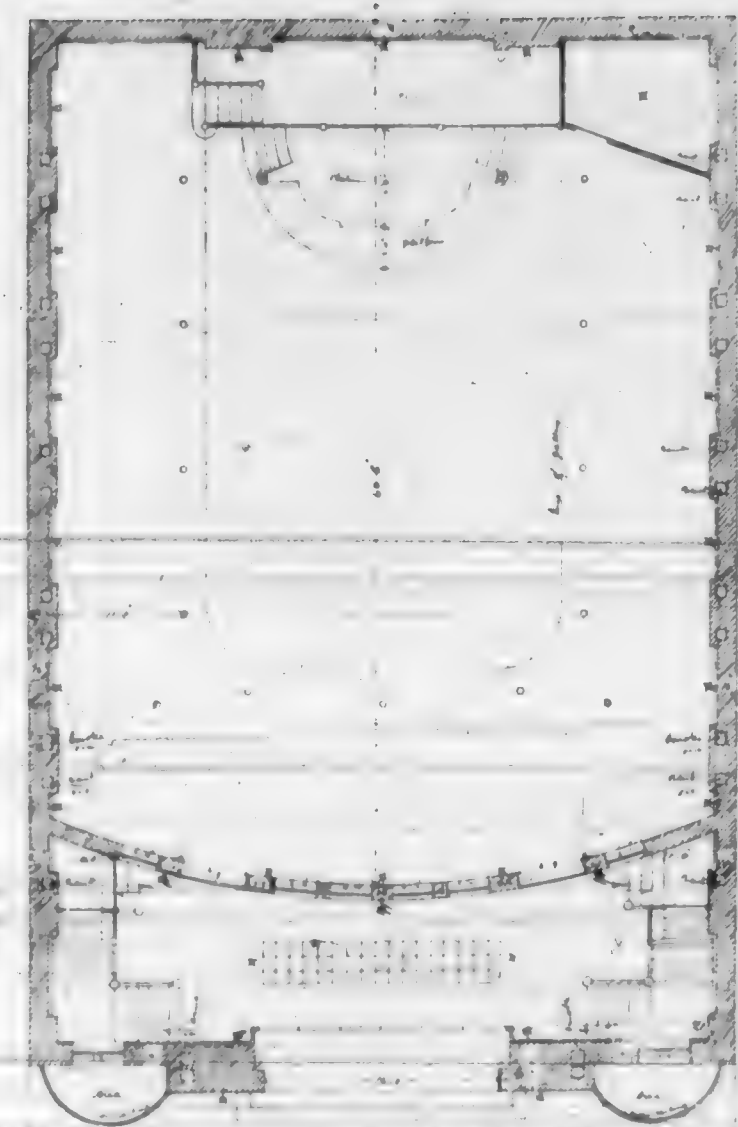
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CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO.

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VOL. XV No 3 MARCH 1894





CHATEAU CHEVALIER MINE CELLAR. ST. HELENA, CAL. OLIVER EVERETT, ARCHTCT.

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plemented by an instrumental reconnaissance of the Napipi and Cuia Rivers, including a reconnaissance of the Atrato River to the town of Quibdo, by parties under the direction of Commander T. O. Selfridge, U. S. N., 1871-1873.

IX. It caused a tentative examination and definite instrumental location to be made of an inter-oceanic canal by way of the Napipi and Doguado Rivers by Lieutenant Fredrick Collins, U. S. N., 1875.

X. Congress caused the work of Commander Lull, at Nicaragua, in 1872-3, to be supplemented by parties under the direction of Mr. A. G. Menocal, C. E., U. S. N., in 1880-1 and 1885-6, the nature of this Government work of Mr. Menocal being an instrumental survey and definite location of an inter-oceanic canal via Lake Nicaragua, including the location of the necessary dams, locks, etc. This later work of Mr. Menocal's being subsequent to all the Government surveys was made after the Government of the United States had determined, through what is sometimes called its high commission, that the Nicaragua Route was the most feasible of all the routes, and the survey was made with the express object of carrying out the provisions of the Zavala-Frelinghuysen treaty. (Government Construction and Ownership of the Nicaragua Canal.) The main provisions of this treaty will be adverted to later.

CRITICISMS OF THE SURVEYS OF POSSIBLE ROUTES.

It has been said of these various routes by Professor Nourse, of the United States Navy one of the very highest authorities on this subject:

I. That Tehuantepec, though possessing large natural and political advantages, requires 140 locks to overcome an elevation of 754 feet, and a feeder 27 miles in length.

II. That the Panama Line is the shortest of all the routes, not involving a tunnel. It is liable to the heaviest of tropical rains, falling in the Culebra section upon a trench nearly 500 feet in depth. It is also liable to the sudden rise of the River Chagres. The climate of Panama is notoriously a physical obstacle, which must be considered in any estimate of the advantages and disadvantages of the route. * *

III. We come now to the San Blas route. Of this route Mr. Nourse says though the shortest of all the proposed routes, the distance from tide to tide being only 19.5 miles, and although the harbors at both termini are exceptionally good, it must be eliminated from the problem of canalization by its demand for a tunnel from seven to eight miles in length.

IV. The Atrato-Napipi Route, fully surveyed by expeditions under Commander Selfridge and Lieutenant Collins, which were supplemental to the extensive surveys under Michler, Craven and Trautwine, must also be eliminated, in the opinion of Mr. Nourse, by reason chiefly of a like demand for a tunnel. The late eminent civil engineer, Trautwine, estimated the cost of a canal by this route at from \$300,000,000, to \$400,000,000. * * *

V. The Nicaragua Route. This route has, as a grand interior basin and feeder, a lake of 2,600 square miles (4½ times the area of the Bay of San Francisco). It has a healthier country, and more abundant supplies for construction, than any other route. Its supply of native labor is large; it is better than that of any other route. In works of magnitude in tropical countries this is a most important consideration. Except the Tehuantepec route, it is nearer by 700 miles to the United States and its commerce. Its termini lie without the equatorial belt of calms, and if those termini can be built up and restored they will be easily accessible to sailing vessels. * * *

It has been my purpose to lay before the Society the main features of the various Isthmian routes so that it may be able to form a general judgment of the comparative merits of all. I have dwelt at no great length upon the merits of the Panama Route, nor at all upon the merits of the Eads ship railway at Tehuantepec. They may both be practicable and highly meritorious plans, but I do not consider it necessary at this time to farther occupy the time of the Society with these possible undertakings.

I will state, generally, however, in the language of Professor Nourse, in order to enable the Society to form its opinions, that: "To meet the requirements which commerce,

supported by all the advanced appliances of this day imperatively demands, the transit must offer the allurements of a full, uninterrupted, safe and speedy transportation. It must be a water highway, through which the largest sea-going vessels, with a tonnage of even 6,000 or more, may pass without breaking bulk; and, it must be remembered, that all experience proves the justice of the statement that railways and canals are supported by the carriage of different species of merchandise—products of great value and small bulk voluntarily selecting the more rapid channel of the railway, while others choose the maritime route." *

CONSTITUTIONAL POWER OF THE GOVERNMENT TO CONSTRUCT AND OWN AN INTER-OCEANIC CANAL.

At this date it is hardly necessary to remind you that the Government of the United States would have the full constitutional power to construct and own the Nicaragua Canal, and operate it in the interest of its people, in the same way that it has improved the Mississippi and the Great Lakes. Indeed, the very convention which framed the Constitution of the United States, by a vote of eight to three, denied the power to the General Government to grant a charter to a private corporation for the purpose of cutting canals in cases in which the authority of a single State would be insufficient (Madison Papers, 1576.) And the same reference will show that it was the intention of the framers of the Constitution to grant the power to the General Government to do directly for the people that class of work.

The direct improvement by the Government of the harbor of Pago Pago, in the Samoan Islands, and Pearl Harbor, in the Hawaiian Islands; the purchase known as the Louisiana purchase, of Florida, and of Alaska, all furnish ample precedent for the direct action of the Government itself at the Nicaragua Route, either by purchase or under treaty with the Nicaraguan Government.

At one time there were a few who thought the General Government would become too powerful or too corrupt if it directly undertook matters of internal improvement. To those I wish to say that they are repeating the arguments of the private speculators. Your Government has become infinitely more corrupt through going into partnership with private corporations, and vastly more injurious and oppressive to the great body of the people from this single circumstance, than from all others combined. If Government legislators were not allowed to sell everything in sight under the name of a Federal franchise, and pocket the proceeds, the body of the American people would have vastly more than they have at present, and an era of congested wealth in the hands of a few would not be upon us.

THE DEMAND IS UNIVERSAL THAT WE RETURN TO SOUND PRINCIPLES OF GOVERNMENT.

When the several States composing the United States surrendered to the General Government the power "to coin money and regulate the value thereof" (Const. U. S., Art. I, Sec. 8); and to issue its treasury notes and greenbacks (the construction put upon the power by the Supreme Court); and in addition thereto denied to themselves the power "to coin Money; emit Bill of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts" (Const. U. S., Art. I, Sec. 10); and denied to themselves the further power to raise a revenue by duties on imports—indirect taxation—(Const. U. S., Art. I, Sec. 10); and when they granted this power to the General Government (Art. I, Sec. 8), the several States *did*, under the Constitution, effectively surrender the PURSE to the General Government. Since, then, the General Government confessedly and effectively holds the public purse, the law-abiding people of the United States must naturally and of right look to it for all necessary internal improvements for the general welfare. The several States, as we have seen, cannot *directly* construct these works, for they placed the means, their purses, in the hands of the General Government.

The purpose of this grant of the purse to the General Government is, amongst other things, that Congress shall have power "to establish postoffices and postroads" (Const. U. S., Art. I, Sec. 8). "Congress shall have power to regulate commerce among the several States"—*Id.* The purse

and the powers enumerated are granted to the General Government to prevent it from turning the people over, in these particulars, to powerful private corporations, to those whose selfish purpose and whose daily practice is to crush out and enslave the people who must use these avenues of commerce.

These great grants of power, with the necessary means to enter upon and discharge the duty and power, were never bestowed upon the General Government to enable it to abandon the people, in these sovereign, governmental and civilizing particulars, to their natural enemies; to those whose interest it is to make all they can out of commerce. It is a rudimentary legal maxim that delegated power cannot be delegated, nor can a sovereign power permanently divest itself of any attribute of sovereignty except by voluntary and total dissolution.

The power in Government of making internal improvements for the benefit of the people is not a power in any country dangerous to liberty. On the contrary, it is the one power, of all others, in a civilized country which, when exercised by Government, is the surest guarantee of liberty, and the real power which prevents the enslavement of the masses of the people by the very strength and knavery of our alleged civilization. It is a power resident in the Government which should protect the people from being turned over, bound hand and foot, to the soulless and the avaricious, to the purchasers of legislation. It is that power which, if exercised strictly and entirely by the Government, is for the general welfare and is truly civilizing.

Those powers which are dangerous to liberty are directly and specially granted to the General Government of the United States. All admit that the power of levying taxes, of raising armies, of equipping navies, and of carrying on war, are specifically granted the General Government.

The purse and the sword are the only instruments that are wanted or can ever be employed for the accomplishment of any ambitious purpose. These having been abandoned to the discretion of the General Government, with what propriety can we apprehend danger from the power to construct a sub-treasury, lay out a canal or road, build a bridge, or improve and join our coasts?

Some one has said: "This would be about as unreasonable as if a lady, who had granted to one of her admirers the name and essential privileges of a husband, should afterwards consider it hazardous on the score of delicacy to accompany him on a journey, or take his arm in a promenade."

Did Caesar, Cromwell or Bonaparte subvert the institutions of their respective countries by laying out a road or canal in the interest of the people? Did they subvert the institutions of their countries by building up its commerce or by causing general and individual prosperity?

It has been reserved for a people living under the form of a free Government to witness almost the subversion of their institutions by a power vastly more dangerous to liberty than that of Caesar or of Cromwell, because it is more insidious and least understood, and more relentless in its grasp upon the people; because it is unrestrained by either the law or the press. Corporate power is fast becoming the law; corporate power is fast becoming the press.

The Government of the United States is one ordained for the 'general welfare.' It is not established for the building up of powerful private corporations to accomplish the destruction of the people of the United States. I confess that in this undertaking, and in all others, I wish to see the people of the United States go forward from achievement to achievement, from height to height, and from glory to glory."

THE woman who distrusts man in the abstract, can always be taken in by man in the concrete.—*Brick.*

NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS, meets second Friday of each month at 408 California street
SETH BABSON, Pres. GEO. W. PERCY, Vice-Pres.
OLIVER EVERETT, Sec. JOHN M. CURTIS, Treas.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at Academy of Sciences Building.
C. E. GRUNSKY, Pres. GEO. W. DICKIE, Vice-Pres.
OTTO VON GELDERN, Sec. W. C. RALSTON, Treas.

CALIFORNIA ELECTRICAL SOCIETY, meets the first and third Monday evenings of each month at the Academy of Sciences Building.
GEO. P. LOW, Pres. C. O. POOLE, Vice-Pres.
MAX CASPARI, Sec. H. T. BESTOR, Treas.

SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

THE regular monthly meeting of the San Francisco Chapter of the American Institute of Architects was held on March 9th, President Babson in the Chair.

Mr. Reid reported progress in the matter of housing the



COTTAGE AT ROSS VALLEY, J. CATHER NEWSOM, ARCHITECT.

chapter library, binding periodicals, etc. No action was taken in the matter of the appointment of an inspector of electrical work, the subject being postponed to a future meeting.

Mr. Edgar Marx Lazarus, architect, of the firm of Ellicott & Lazarus, Portland, Oregon, was elected a fellow member of the Chapter.

The committee appointed at the previous meeting to draft a resolution in regard to the method of designing Federal Buildings presented the following, which was adopted as an expression of the views of the Chapter:

The San Francisco Chapter of the American Institute of Architects, having had its attention called to the letter of January 9, 1894, from the officers and directors of the American Institute of Architects to the Honorable Secretary of the Treasury, in reference to the designing of public buildings erected under the supervision of the Treasury Department, desires to endorse the protest contained in the above mentioned letter in so far as it applies to the erection of public buildings in general. The case in point simply serves as an example and nearly all the past offices and custom house buildings in the United States add to the weight of their ill designed appearance to the feeling of protest that is steadily growing among Architects and people of

taste generally to the fact that our public buildings are a standing reflection on the architectural ability of American Architects.

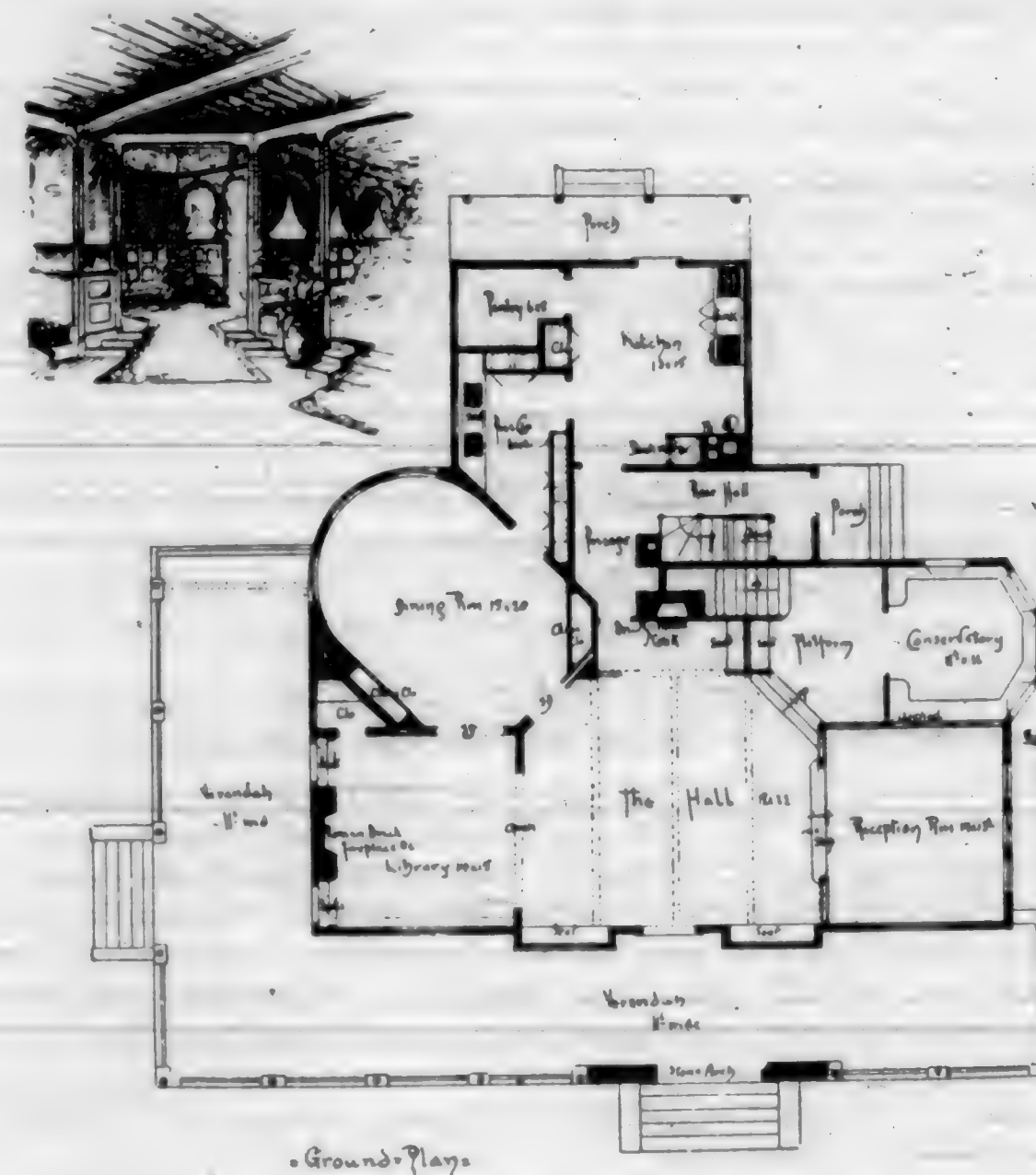
The San Francisco Chapter of the American Institute of Architects in meeting assembled, respectfully urge the Honorable Secretary of the Treasury to consider the following suggestions:

FIRST—That whereas the employment of a supervising architect of the Treasury Department is totally inadequate to the proper designing of so many buildings of the importance that he is called upon to build, and that

WHEREAS—The concentration of so much work in the hands of an individual is detrimental to the highest excellence in architectural design, that this Chapter adds its voice to that of the Chapters in recommending a change from the existing practice

And whereas according to a law recently enacted the Secretary of the Treasury has the power to call for competitive designs, that this Chapter recommends that all designing for Public Buildings should be adopted in accordance with the terms of said law, and the Competitive Code of the American Institute of Architects, subject to the approval of the Secretary of the Treasury, upon the recommendation of a committee of professional experts, consisting of architects of eminent standing in their profession, to be appointed for that purpose by the Treasury Department.

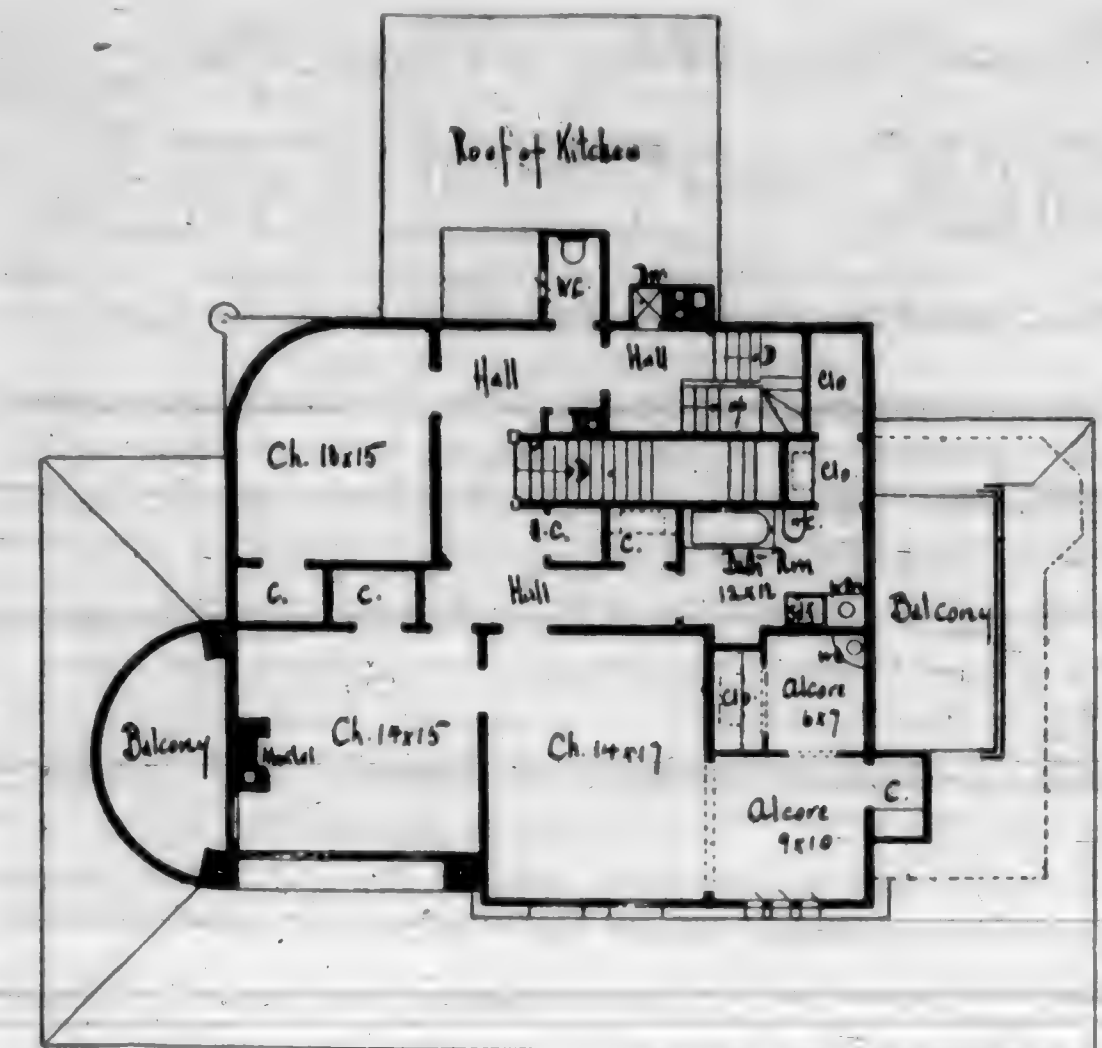
Messrs. Polk, Reid and Sanders were appointed a committee to consider the advisability of holding an annual exhibition of drawings, the offering of prizes to students, etc.



LEGAL DECISIONS.

From a large number of Legal Decisions of the higher Court, of the different States of the Union, we select and publish in this column, such as appear applicable to this section of the country.

CANCELLATION OF DEED FOR FRAUD.—A contract for the sale of a certain building and lot contained a covenant that the westerly wall was an independent wall, an attorney employed by both parties drew the deed, omitting any reference to such wall. He also attended to recording it. One of the purchasers, who transacted the business, could not read, and relied on the seller's representations concerning such wall, and on the attorney to correctly draw



the deed. The seller knew that it was not an independent wall. Some time after taking possession the purchasers discovered the fact, tendered a reconveyance, and demanded a return of the purchase money. A judgment setting aside the conveyance and directing a repayment of the purchase money was proper.

Keller vs. Feldman, Supreme Court of N. Y. 24 N. Y. Supp. 179 120.

WHEN MATERIALS NOT USED ARE NOT SUBJECT TO MECHANIC'S LIEN.—Subcontractors who furnish materials specially designed and made for a building, and necessary for its completion, are not entitled to a lien therefore where such materials were not used because the contractor suspended work or for other reason.

Mechanic's Mill & Lumber Co. v. Deeny Hotel Co. of Seattle, Supreme Court of Washington, 34 Pac. Rep. 774. 48.

RIGHT TO REMOVE PARTY WALL.—A joint owner in a division wall may remove it, and erect a new one, if the work is done in a reasonable time, and the co-owner is reimbursed for necessary expense in protecting his property during the change.

Putzell v. Drovers' & Mechanics' Nat. Bank, Court of Appeals of Maryland, 28 At. Rep. 276. 44.

ACTION TO RECOVER FOR BILL OF LUMBER.—In an action for the price of lumber furnished for the construction of a house, where the issue is whether the lumber was furnished to the owner or to his contractor, it is not a reversible error to exclude evidence to the effect that the contractor carried away the pieces of lumber not used in the house. It having been shown that the contractor gave the lumber dealer an order on the owner for the amount due for the lumber, it is proper to allow him to show by parcel that the order was given for the lumber charged to the owner.

Hartshorn v. Burne, Supreme Court of Illinois, 35 N. E. Rep. 622. 107.

MATERIAL LIEN MUST TAKE NOTICE OF TITLE TO PROPERTY.—The mechanic's lien law requires that a contract for materials, labor, etc., for the improvement of real property shall be made with the owner thereof, or his agent. A tenant, as such, has no power to contract for labor or materials so as to affect with a mechanic's lien the real property leased to him. A person furnishing material for an improvement must take notice of the interest and title of the premises of the person with whom he contracted as shown by the public record, as his lien for labor and materials, aside from the improvement itself, attaches only to such interest.

Waterman v. Stout, Supreme Court of Neb. 56 N. W. Rep. 987. 105.

LIQUIDATED DAMAGES FOR DELAY ON CONTRACT.—Under contract for the construction of a house, to be completed at a certain time, providing that the contractor shall forfeit ten dollars per day thereafter until completed, the presumption is that such sum is intended as liquidated damages; and the contractor, contending that it is a penalty, has the burden of proof.

De Graff, Vrieling & Co. v. Wickham, Supreme Court of Iowa, 57 N. W. Rep. 420. 59.

EFFECT OF BUILDING RESTRICTIONS AS TO SUBSEQUENT GRANTEES.—A contract between the owners of property that no building shall be erected within a certain distance from the streets may be made by parol, and grantees of the land, who take with notice of the extent and nature of the restriction, are bound by it.

Hayward Homestead Tract Ass'n. v. Miller, Supreme Court, Special Term, Monroe County, 26 N. Y. Supp. 1091. 54.

BOOKS AND PERIODICALS.

We have received from Mr. Guy Kirkham, Springfield, Mass., a copy of a little volume called *THE BEST SECURITY*. This little work is well worth the careful study of both the architect and those about to build. It may be called a succession of hints or suggestions, by giving some of the subjects treated of a good idea of the scope of the work may be obtained, "Convenience and Beauty, not a Matter of Cost," "Oneness of Exterior and Interior," "Plotting the Plan," "Living Room and Dining Room" and so on to the end, the authors remarks are full of good sense, expressed in a modest manly way.

INDUSTRY.—Devoted to science, engineering and mechanic arts. The March number comes to hand full of articles of interest, among others "The Red Point Drift Gravel Mine" with a detail of the cost of various portions of the work that cannot fail to be of great interest to mining men, and also give the general public an idea of how small a quantity of gold per ton will pay for extracting, under favorable circumstances, combined with economical and prudent management.

We have not the space required to call attention to the other articles of interest, but would advise persons interested to get the journal and examine its merits at leisure.

THE HISTORY OF A LEAD PENCIL by Walton Day, price ten cents, published by the Joseph Dixon Crucible Co., Jersey City, N. J. This little volume if carefully read will convince the general reader that it contains more information about pencils and how they are made, why, some are bad, and some good, than they would have thought it possible for any one to know.

LIPPINCOTT'S MONTHLY MAGAZINE for March, contains for its complete novel "A Desert Claim" and certainly a charming story. The description of the cowboy and the cows are certainly very life like, ending in a pretty love story or more properly speaking commencing with a love story. The table of contents is unusually good and will well repay a careful reading.

SMITHSONIAN INSTITUTION.—We have received the Annual Report of the Board of Regents of the Smithsonian Institution. As usual it contains a vast amount of interest to collaborators and correspondents of the institution, teachers and others engaged in the promotion of knowledge; among others, an article on the Scientific Work of George Ohm being an address delivered at the public meeting of the Royal Bavarian Academy of Science of Munich, March 28th, 1889, it is well worthy the careful study of the electrical student.

The account of the Corbin Game Park by John R. Spears, although already published, cannot fail to be of great interest to the hunter as well as the general public. When we find a private gentleman investing not less than \$400,000 in park of 22,000 acres and a collection of animals that with-

out some such protection would in a few years become extinct—deer, buffalo, the elk and antelope, appear to have been Mr. Corbin's particular pets, though moose and reindeer have not been neglected. Our space will not allow of more than calling attention to this interesting report of Mr. Corbin's efforts in this line.

It is hard where so many matters are presented to our attention, to say which is the most interesting; undoubtedly this was the founder's intention when he planned this noble institution for the spread of knowledge, that every class in search of information should come to the fountain head and find something in his line.

THE CALIFORNIA SCHOOL OF MECHANICAL ARTS.

WE are pleased to note in the daily press, that "The California School of Mechanical Arts," has at last a fair chance of becoming a reality.

James Lick, in his will, made provision for establishing and conducting this school; and the Trustees of his bequest are now, after many years of litigation, in a position to carry out the philanthropic motive of the millionaire.

The following clipping from the *Examiner* of March 10th, will be interesting reading, for those who will reap the benefit of Mr. Lick's intentions.

The trustees of the Lick bequest for "The California School of Mechanical Arts" met yesterday and decided to go to work at once on the erection of suitable buildings at the Potrero. The Chairman, Horace Davis, was authorized to take an architect to the site of the school at the Potrero and bring in a rough draft of plans at the next meeting. It is expected to complete the buildings within six months.

Mr. Davis was interviewed yesterday on the status of their funds and the feasibility of forming a union with the recent Wilmerding bequest for an industrial school.

"We have been tied up," said Mr. Davis, "by the courts for years and years and we are now for the first time free so that we can use the \$540,000 bequeathed for the school."

"This is not enough for us to do what we would like to, and the Court has most absurdly, to my mind, maintained that the revenues derived from these funds cannot be used by us until the building is erected and the school founded."

"This leaves but one thing to do. We have a block 200x400 feet in the Potrero. We must now erect a building. We would like to put up a handsome edifice as a monument to James Lick, but this cannot be or the school itself will have to suffer. Our building must be of the simplest, plainest kind and on a very moderate scale."

"We have \$540,000. Allowing \$140,000 for buildings, we have \$400,000, which at five per cent yields \$20,000. We must lay aside several thousand per year for a reserve or an emergency sum, and insurance, taxes, repairs and incidentals will bring down our annual revenue to \$15,000."

"What can be done with that sum in running a great school? We have been anxiously waiting and hoping that some one would give us a building. Cogswell offered us his building at a most moderate rental, and had the courts allowed us the revenues to which we believe we are justly entitled, we would begin the 'California School of Industrial Arts,' there immediately."

"It would indeed be a fine thing if the Wilmerding bequest could be united with ours. Neither is large enough to produce the results which are so highly desirable. There may be some way in which this may be brought about within the law, but I do not now see how."

"We could hardly design in favor of the Regents, even if we so desired. Again, the two funds might be worked with the greatest harmony by the two boards of trustees, each supplementing the other. The difficulty is that this harmonious relationship could not be guaranteed for all time."

"There is some difference, I think, in the two trusts, so far as I can interpret them as to the particular kinds of schools. The Wilmerding School of Industrial Arts is to teach boys trades, fitting them to make a living with their

hands, with little study and plenty of work. On the other hand, the Lick bequest reads as follows: 'To found and endow at a cost of \$540,000 an institution to be called 'The California School of Mechanical Arts,' the object and purpose of which shall be to educate males and females in the practical arts of life, such as working in wood, iron and stone, or any of the metals, and in whatever industry intelligent mechanical skill now is or can hereafter be applied, such institution to be open to all youths born in California.' 'I admit that Lick's bequest was made in the most bungling language, and although it plainly reads that only native Californians can attend the school, I believe he did not mean that.'

"In other respects it is broader than the Wilmerding be-

quest. We could establish a technical manual training or trade school of any kind, but the board has unofficially decided on a manual training school after the type of the Cogswell Institute. We want to so train the hands of the boy that he can become either a journeyman artisan or a master mechanic in any particular vocation he may take up.

"However, I consider the differences in the trust to be of not so vital a character as to prevent consolidation, and if it can be done within the law it would be a desirable result."

A. S. Hallidie, another member of the Lick Trustees, said that he believed "the Lick school should not be of so high a grade as Cogswell's; that is, it should teach boys to be good journeymen and not master workmen. This is the kind of school that is needed now."

BUSINESS MOSAICS.

Browell's Patent Chimney's. These chimneys have not only the endorsement of the Board of Supervisors but are recommended for general use by the Fire Wardens, insurance agents and architects. Orders for Vitrified iron, stone sewer pipes, traps and connections, terra cotta chimney tops and flue linings filled at short notice by Mr. J. Browell, contractor and builder, 727 Montgomery St., San Francisco.

"When a man makes a large fortune, what do people say?" asked the teacher. "That he is fortunate," replied the bright boy. "That's right. Now when a man fails in business what do they say?" "That he didn't advertise."—*New York Recorder.*

Those about to build and who wish to avail themselves of sanitary appliances that will assure them fresh air with freedom of bad odors, cannot do better than consult Mr. Joseph Budde, the manufacturer of the popular Golden Gate Patent Water Closets. This well known establishment can surely fill your wants in the plumbing line—a visit to Mr. Budde's headquarters, 575 Mission street, will convince you that you have found the right place to have your wants in his line well supplied and all work furnished by him in first class.

"Who is that?" asked Brown, indicating McCork's typewriter and secretary. "That is my recording angel."—*West Shore.*

The San Francisco Lumber Co. are still on hand to supply lumber both wholesale and retail. This company under the able management of J. N. Curtis who will be found at the principal office of the company, NW. cor. Pine and Montgomery streets, have yards in various parts of the city as will be seen by reference to their advertisement in this paper. If the improvement in business continues as spring opens and building is once more commenced in old time style, they may expect a busy season for which they are well prepared.

Ferry—"Wrattle didn't speak to Bangs for twenty years until last week." **TRAIN**—"How did he come to speak then." **FERRY**—"Bangs started to paint his house and Wrattle had to tell him how."—*Puck.*

If you want anything in the way of Parquetry Floors, Wood Carpet, fine Fretwork and Grills, go to Kenney & Wells, 422 Sutter street, San Francisco, or 1110 Broadway street, Oakland. While you are about it it would be a good idea to furnish one's pet room with mirrors, frames and pictures ordered from them and live to regret you had not furnished the rest of the house in the same way.

"How beautifully soft it is," he murmured laying his hand on her glorious white arm. "How less beautiful, but oh, so much softer," she tenderly replied, laying her jeweled hand on the top of his head.—*News Letter.*

Optical Exhibit of Dr. Robt. Thompson representing V. Vernard, Paris, to be found in the French Section, Manufactures Building, Midwinter Fair, is worth a call even if your eyes do not need attention.

Western Iron Works, 123 and 125 Beale street. This well known firm are still in the field for business in their line, contractors for wrought iron and steel building work; also beams, girders, anchors, stirrups, vaults, railings, etc. As the coming season bids fair to see the erection of some large buildings of the class requiring this kind of work, their works promise to have a busy time in the next few months.

He—"I have \$3,000 a year. You could certainly live on that?" **She**—"Yes; but I should not like to see you starve."—*News Letter.*

The Lord knew what was best for man's peace of mind when he failed to put eyes in the back of his head.—*Atchison Globe.*

George Goodman—Patentee and manufacturer of Artificial Stone, has this advantage, that whoever walks over their sidewalks becomes an advocate of the extension of such walks. He hardly needs to have a notice calling attention to his advertisement as those that walk can read under their feet "Schillinger's Patent," and this when constructed under the skillful eye of Mr. Goodman is a sufficient warrant that speaks for itself.

CITY BUILDING NEWS.

Capp near 23d. Grading, brick, carpentering and plastering work; owner, M. A. Warren; contractor, Richard Sears; signed, March 3; filed, March 3; cost \$2300.

Castro and 17th. Two-story frame; owner, H. Hetherington; architect, H. D. Mitchell; contractor, L. N. Fletcher; signed, March 7; filed, March 7; cost \$3915.

Clay near Baker. To build; owner, F. M. Stevens; contractors, White Bros.; signed, March 2; filed, March 5; cost \$6275.

City Hall, lot 46. Alterations and additions; owner, California Title and Trust Co.; contractors, Jas. and J. A. McDonald; signed, March 3; filed, March 6; cost \$3941.

Dougllass near Alvarado. To build; owner, John A. Keogh; architect, T. J. Welsh; contractor, John P. Dunn; signed, Feb. 27; filed, March 3; cost \$1417.

Ellis and Larkin. Alterations and additions; owner, Edward Connolly; architects, Shea & Shea; contractor, James Cochran; signed, Feb. 9; filed, Feb. 13; cost \$4100.

Ellis and Larkin. Painting; owner, Ed. Connolly; architects, Shea & Shea; contractor, Jas. Rainfield; cost \$567.

Ellis and Larkin. Plumbing; owner, Ed. Connolly; architects, Shea & Shea; contractor, John P. Culley; cost \$900.

Ellis and Mason. Stair work; owner, Y. M. C. A.; architect, A. Page Brown; contractors, Mahoney Bros.; signed, Feb. 13; filed, Feb. 15; cost \$3,500.

Eleventh Ave. near J. To build; owner, Emil F. Tahler; contractor, Casper Zwierlein; signed, Feb. 20; filed, March 5; cost \$1000.

Fell near Masonic Ave. To build; owner, Edward May; architect, Julius E. Kraft; contractors, Wm. W. Ackerson and Wm. Peterson; signed, Feb. 12; filed, Feb. 14; cost \$6114.

Fell bet. Broderick and Baker. A flat made out of a rough basement; owner, Herman Puckhaber; contractor, Peter Johnson; cost \$1035.

Fillmore No. 206. Alterations; owner, Mrs. Louisa Hagmaier; contractor, G. G. Gillispie; signed, Feb. 16; filed, Feb. 20; cost \$2375.

Folsom and 21st. To build; owner, Ed. Connolly; contractor, Henry P. Conrady; signed, Feb. 14; filed, Feb. 14; cost \$9063.

Fulton near Devilsadero. To build; owner, Mary A. Gaynor; architects, Shea & Shea; contractors, James E. Mooney; filed, March 3; signed, March 8; cost \$3777.

Fillmore near Haight. Grading, brick and carpenter work, plastering, painting, graining, glass, etc.; two too story buildings; owner, John A. Sandell; architect, Edward J. Vogel; contractor, Robert Currier; signed, Feb. 13; filed, Feb. 14; cost \$4950.

Fillmore near Haight. Plumbing, ga-fitting, etc.; owner, John A. Sandell; contractor, Newmark & Mills; signed, Feb. 12; filed, Feb. 14; cost \$898.

Golden Gate Ave. near Lyon. Three-story frame; owner, John T. Hayes; cost \$6000.

Harrison and 10th. To build; owner, Geo. I. Roychester; contractor, M. McCracken; signed, March 8; filed, March 8; cost \$1900.

Hayes near Scott. To build; owner, Christian Jaun; contractor, Jacob Schuler; signed, March 5; filed, March 5; cost \$3940.

Hayes bet. Lott and Lyon. To build; owner, W. H. Kinread; cost \$4500.

Henry near Sanchez. To build; owner, Wm. Von Voss; contractors, Koenig Bros.; signed, Feb. 12; filed, Feb. 13; cost \$3995.

Howard near 23d. To build; owner, Adolph Schulze; architects, Kenitzer & Barth; contractor, Anderson Bros.; signed, March 11; filed, March 11; cost \$6980.

Jackson and Gough. All cabinet work; owner, S. Swabacher; architects, Percy & Hamilton; contractors, Fink & Schindler; signed, Jan. 11; filed, Jan. 11; cost \$2520.

Jackson near Laguna. To build; owners, Walter Speyer and wife; architect, B. McDougall & Son; contractor, J. H. McKay; signed, March 6; filed, March 6; cost \$14,737.

Jackson and Scott. Stable building all work except concrete; owner, Wm. H. Talbot; contractor, Peter Chrichton; signed, March 7; filed, March 7; cost \$7720.

Leavenworth near Eddy. Four frame buildings and basements; owner, Harriet McCarthy; architects, Shea & Shea; contractor, W. H. Leahy; filed, Feb. 24; cost \$10,780.

McAlister near Jones. Passenger elevator with electric motor; owner, Katherine Adam and Eliza Kibbe; architect, Julius E. Kraft; contractors, A. J. Nicoll & Co.; signed, Feb. 12; filed, Feb. 13; cost \$3100.

Page and Lyon. To build; owners, Rountree Bros.; architect, E. R. Swain; contractors, Rountree Bros.; cost \$7000.

Post and Powell. Plumbing and sewerage; owner, Mrs. A. M. Parrott; architects, Pissis & Moore; contractor, R. A. Vance; signed, Feb. 15; filed, Feb. 20; cost \$11,742.

Post and Powell. Sheet plate glass, etc.; owner, Mrs. A. M. Parrott; architects, Pissis & Moore; contractors, K. N. Woods & Co.; filed, Feb. 24; cost \$3975.

Post and Leavenworth. Electric light works; owners, S. S. Verein Assn.; architects, Salfeld & Kohlberg; contractors, Edison Electric Light Co.; signed, Feb. 12; filed, March 1; cost \$1710.

Post and Leavenworth. Marble work; owner, S. F. Verein Assn.; architects, Salfeld & Kohlberg; contractors, Ruffino & Bianchi; signed, Feb. 12; filed, March 1; cost \$2085.

Post and Montgomery. Safe and vault work; owner, Union Trust Co.; contractors, Diebold Safe and Trust Co.; filed, Jan. 2; cost \$29,067.

Sanchez near 18th. To build; owners, Emery and Minnie La Vallie; contractor, Thos. Elam; cost \$3780.

Scott and Green. Two too-story buildings; owner, E. Avery McCarthy; contractor, Louis Landier; architect, J. C. Newsom; filed, March 5; cost \$13,250.

Sixth near Point Lobos Ave. To build; owner, Felix M. Hugh; contractor, Bernard Duffy; signed, March 9; filed, March 10; cost \$1600.

Sutter and Mason. Stair work on Bohemian Club; owner, S. Wenban; architects, Pissis & Moore; contractor, H. W. Frick & O. A. Crasmer; signed, Feb. 14; filed, Feb. 15; cost \$5174.

Sutter and Mason. Plastering; owner, S. Wenban; architect, Pissis & Moore; contractor, C. Dunlap; signed, Feb. 7; filed, Feb. 15; cost \$3247.

Taylor near Filbert. Two too-story and basement; owner, Ida M. Stringer; architect, Chas. R. Wilson; contractor, Timothy Sullivan; signed, Feb. 10; filed, Feb. 14; cost \$4170.

Twelfth Ave. near H. To build; owner, Jos. Morrissey; architect, W. H. Lillie; contractor, T. T. Pottinger; signed, Feb. 26; filed, Feb. 27; cost \$1627.

Thirty-first Ave. near Point Lobos Ave.; To grade; owner, W. R. P. Adamson; contractors, W. N. Stanley & E. F. Dennison; signed, Aug. 20; filed, March 6.

Twenty-third near Sanchez. To building; owner, Edward Brugge; architect, Robert Frost; contractors, R. Erost & Fred Antree; cost \$2,150.

University Mound, block 37. To build; owner, J. and G. Giannini; contractor, Wm. I. B. Warner; filed, March 8; cost \$1650.

Van Ness and Myrtle Ave. Steam heating; owner, Dr. C. F. Buckley; architect, M. J. Lyon; contractors, Ford Bros.; signed, Feb. 24; filed, March 16; cost \$2000.

Waller and Frederick. To build; owner, J. N. Riedout; architects, Townsend & Wyneken; contractor, Thomas Riedout; signed, Feb. 21; filed, Feb. 24; cost \$9400.

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THE HONORABLE SECRETARY OF THE TREASURY who apparently knows more law than the lawyers, more finance than the financiers and more architecture than the architects, probably knows more of the creation than the Creator; for he has wisely and properly squelched Daniel H. Burnham who had the temerity to suggest that the American Institute of Architects, a National Organization, was entirely disinterested in its efforts to correct the errors that mark the designing of our public buildings. Mr. Burnham, to whom belongs the proud distinction of having directed the construction of the most harmonious and beautiful group of buildings ever erected in the history of the world, with the natural egotism begot of great success, had the presumption to think that his personal opinion, expressed in approval of the joint wisdom of the American Architects, would add weight to that of the Institute in bringing influence to bear on the high authority vested in the Treasury Department of our great Democratic Government. Mr. Burnham was mistaken and the advancement of Architecture has been checked. But we need not despair, for the natural destiny of a great country is excellence in the Fine Arts.

The marvelous development attending the building of the Chicago Fair buildings is too strong an evidence of the healthy growth that the architecture of this country is experiencing, and the protests that are being entered against the designs of our public buildings are but a small intimation of more that will follow unless there is a revolution in

the methods of the Treasury Departments which intrusts the designing of so many important buildings to an official whose salary is equalled by the remuneration received by the assistants to architects of but modern practice.

Perhaps Mr. Carlisle has been too busy to properly interpret the designs of the times, but this is a subject that will refuse to be ignored, and is one calculated to command the most distinguished consideration, if not from Mr. Carlisle perhaps from his successor.

UNTIL this recent affair with the American Institute of Architects, *Life* had supposed Secretary Carlisle to be a reasonably patriotic person. There are few intelligent boys in this country over seven years of age who would have had the courage to come out so fearlessly for what all the rest of the world knows to be the wrong thing.

Educated architects are not looking to this gentleman from Kentucky for professional instruction. If his skin is so thin and his sense of his own dignity so lofty that it unfits him for the purposes for which he is drawing a salary, he would do well to borrow an elastic hat and return to the blue pastures of his own State for a period of reflection.

Mr. Carlisle's ideas of his own dignity are of far less importance to the people of this country than the services the American Institute of Architects can render our national architecture.—*Life.*

[Our bright little cotemporary *Life* is edited by a gentleman of considerable architectural taste and its comments quoted above are calculated to command the respect of even so mighty an authority as the Secretary of the Treasury. EDITOR CALIFORNIA ARCHITECT AND BUILDING NEWS.]

THE FIRST ANNUAL EXHIBITION OF THE SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.



IN the eastern cities Architectural Exhibitions having so long been regular events it is gratifying to note a beginning in that direction in San Francisco.

The Chapter of Architects deserves much credit for inaugurating the scheme, and to the Art Association is due the thanks of the profession for its kindness in putting its magnificent room at the disposal of the Chapter.

A visitor to the spring exhibition of the Art Association

and sections of the Hopkins House. These drawings made sixteen years ago should be of considerable interest to draftsmen of to-day. They are excellent examples of carefully rendered wash drawings, besides being illustrations on paper, the work of Wright & Sanders, the architects of the building in which the drawings hang.

Number 10 is a pen and ink drawing of the Hibernia Bank by D. A. Gregg. This drawing will command the attention of all draftsmen as much as the building has compelled the admiration of all architects. Messrs. Pissis & Moore have been congratulated so often on this building that any praise would be an old story and any criticism would be out of place.

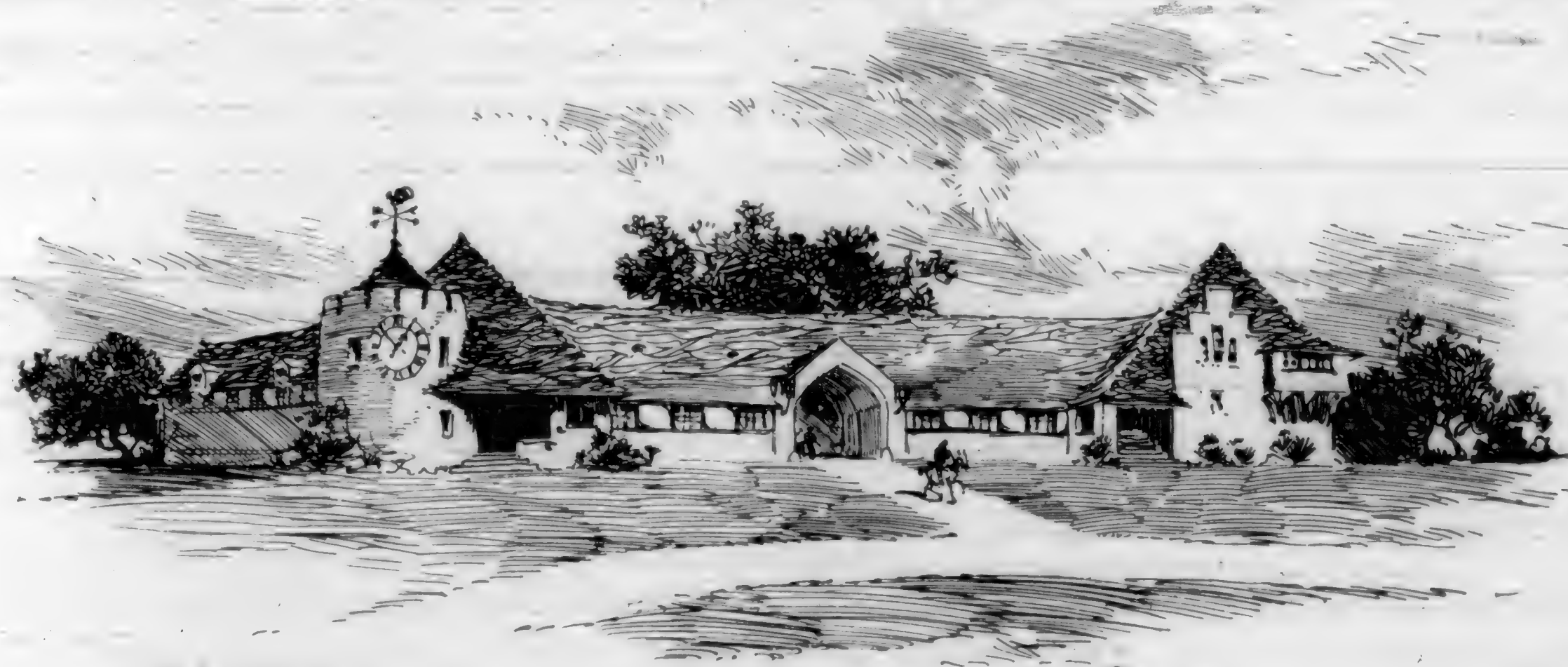
Moretti's water color drawing, number 11, of Pissis &



RESIDENCE OF V. J. A. REY, POLK & POLK, ARCHITECTS.

at the Hopkins Institute of Art cannot fail to be interested in the collection of architectural drawings and designs. Numbers 1, 2 and 3 in the catalogue are the elevations

Moore's Bohemian Club building is not as good a drawing as Moretti generally does. It is anything but clear in color, being heavy and cloudy and reflecting but little credit on



Architect

BURLINGAME COUNTY CLUB STABLES, A. PAGE BROWN, ARCHITECT.

the building it represents. This building which is now nearly finished is an ornament to the city and another one of which its architects should be proud.

Number 13 is an excellent water color drawing by Ernest Coxhead of his St. John's Church, humorously dubbed

by Clinton Day, but a careful search of the rooms fails to reveal the drawing. Possibly Mr. Day intends to repair this omission.

Numbers 19 to 26 are a series of clever drawings of work by A. Page Brown.



HOTEL NEAR MONTALVO, CALIFORNIA, A. C. SCHWEINFURTH, ARCHITECT.

"St. Roofus" by the clergy on account of the enormity of its roof. The drawing however is as good an example of an architectural water color as there is in the exhibition.

Number 29 is a stunning pen and ink drawing by Ernest Peixotto of a design by Willis Polk for a Market street building.

Number 14 is a pretty little pen and ink, by R. M. Turner.

Perhaps the best pen and ink sketch in the show is of the

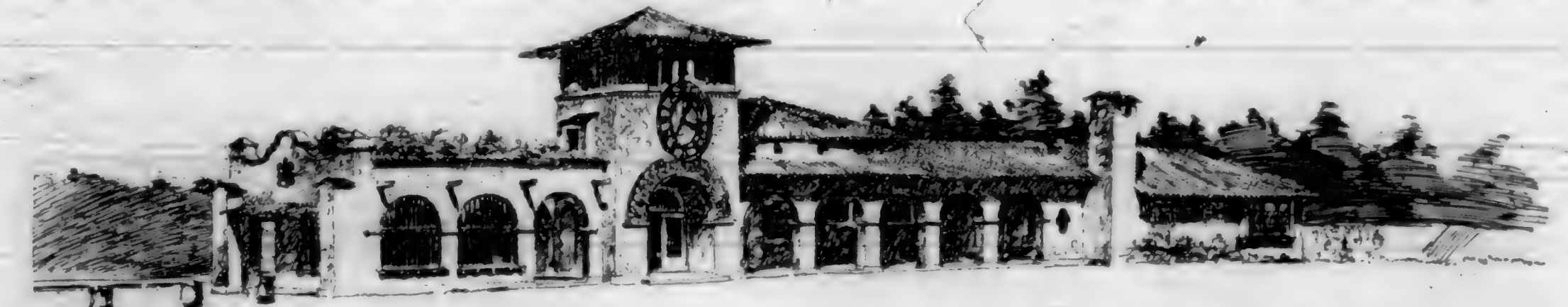


EPISCOPAL CHAPEL, CORONADA BEACH, REID BROS., ARCHITECTS.

of a Chapel at Coronado by Reid Bros. This is the only contribution that Reid Bros. have made to the collection.

Palace Contarini, No. 9, by Dan Polk.

Messrs. Mathisen & Howard have a large series of



BURLINGAME RAILWAY STATION, MATHISEN & HOWARD, ARCHITECTS.

A matter to be regretted and which it is hoped they will remedy before the exhibition closes.

attractive sketches that are well worth careful inspection. It is hard to say which of these gentlemen do the most interesting work.

Number 18 the catalogue says is the Union Trust building

Coxhead & Coxhead have four or five charming pencil sketches. They should have sent more.

Three drawings by Anderson of some work of Ellicott & Lazarus of Portland, Oregon, are examples of Anderson's

Interior of St. Mark's Church, Philadelphia, is splendidly done in sepia.

Number 54, The Hobart Mausoleum, by Percy & Hamilton is an excellent design with the drawing rendered in good



RESIDENCE OF GEORGE WHITTELL, COXHEAD & COXHEAD, ARCHITECTS.

well known coloring with which local drawings will compare favorably.

Of decided interest are six little sketches, numbers 63, 64, 65, 66 and 68 by W. M. Ellicott of Portland, number 65 an

style.

Number 74, A Winter Residence at Santa Barbara by A. C. Schweinfurth is a splendid water color of a most interesting design. This is in line with a style of architecture



MONTGOMERY MEMORIAL CHAPEL, WRIGHT & SANDERS, ARCHITECTS.

thoroughly characteristic of California and something of which we should see more.

Number 67, the residence at Belvedere of V. J. A. Rey, by Polk & Polk, is in line with it and illustrates the adaptability of the style to a very difficult site.

he has not selected by sample. When an architect makes such a selection he should try to get the kind of brick he wants, and let the terra-cotta manufacturer do the matching. The principal reason for this is that in brickmaking clay must be mixed to produce the desired color when burned.



A BIT OF VENICE, FROM A SKETCH BY DAN POLK.

Among the photographs the residence of O. D. Baldwin, number 98, by Samuel Newsom, is a pleasing variation of the architect's usual style.

Number 100 is Mr. Oothout's residence at Fresno, by A. Page Brown.

COLOR IN BRICK AND TERRA-COTTA.

THE matter of color in brick and terra-cotta is now so well in control that an architect willing to give a little attention to experimental work can count upon getting from any one of the large manufacturers exactly what he wants. It is often the case that he selects one or the other from some sample at hand, and requires a match in the material which

while in a piece of terra-cotta the exact color can be obtained by "slipping." The slip is a coating applied by a machine on the principle of the atomizer. A creamy paste of the slip clay is mixed and placed in a receptacle, through the top of which projects a tub running down into the paste. Across the open top of this tube a jet of steam is forced, which draws out the paste and sprays it over the piece of green terra-cotta. When this is done the terra-cotta has a secure coating of the kind of clay necessary to give the right color when burned. This process renders it comparatively easy for the terra-cotta manufacturers to produce the exact shade desired by the architect, so that if it comes to a question of matching one with the other, as is now being done to a greater extent than formerly, let it be the brick that is first selected.—*The Brickbuilder.*

CORRESPONDENCE

To the Editor of The California Architect and Building News:

In a recent issue of one of our local building papers and copied by an eastern cotemporary, has appeared a severe article deprecating the construction of Portland Cement Walls for foundations and basement walls of buildings, so much in practice at the present time, as being unreliable; due to gradual waste, and also wanting as a fire-proof construction; which is so at variance with those of experience in application, and the numerous authorities who have given it long and patient scientific study and investigation, that it seems novel at this late day. If such is the writers experience, it must have been due either to the use of comparatively valueless quick setting cheap Portland cements of which the market is flooded and manipulated in the hands of workmen heedless as to the requirement to be worked quickly; this probably alone, or together with improverishment due to the small quantity of Portland cement compared to the other ingredients to cheapen the mixture, in the hands of unreliable contractors has most likely been the writer's experience and has soured him on Portland cement concrete.

In support of this statement I revert to the introductory notes on concrete and works of concrete, by John Newman, which is one of our valuable standard works on Portland cement concrete, which reads as follows:

"Portland Cement Concrete has become one of the most important materials in construction, and can be used with absolute confidence that the work will be of a hardness and strength, and will not deteriorate, provided the necessary care is taken in selection, proportions, mixing and deposition, which long and varied experience has proved to be indispensably requisite.

By judicious application, many works can now be erected, more especially submerged structures, that by reason of their great cost, it was impossible to construct, but now Portland cement walls of average thickness for engineering purposes, can be built for one-half, or one-third the expense of masonry or brick work.

The valuableness of Portland cement, is its power of firmly uniting other substances, its cohesiveness, durability, and adaptability to be moulded into any form with a rapidity of execution unattainable with brickwork and masonry.

Apart from the cement, the nature of the other ingredients is of great importance, the mode of mixing, depositing, etc., for practical value of cement may be destroyed without due attention to these details."

As Mr. Newman says, which is known to every practical experienced worker in Portland cement, that its practical value may be destroyed without due attention to the mode of mixing and depositing.

Suffice to say, Portland cement and its concretes, has not only held its own, but advanced in usefulness, and far outstripped other cementing materials, that it stands head and foremost, and ranks as one of the great inventions, deserving rank with applied electricity; and it seems to me to berate its effectiveness rather belittles he who does attempt it.

As to the fire-proof or fire resisting qualities I would refer to the following, taken from Thaddeus Hyatt's valuable work, entitled "Portland Cement Concrete Combined with Iron as a Building Material." This work may be found in many of our public libraries.

ADAPTABILITY OF PORTLAND CEMENT CONCRETE AND IMBEDDED IRON OR STEEL TO FIRE-PROOF CONSTRUCTION.

"To ascertain the limits of expansion and contraction of Portland cement within definite ranges of temperature, trial sticks of cement were made and heated, the expansion of the same being ascertained by placing the tests between two fixed points, space being allowed between the variations in which were ascertained by means of tapered pieces, which were then measured by Holtzapffel's thousand gauge. The result was found to be a lineal expansion of .00137 for 180 degrees of heat as compared with .00140 for wrought iron, a result so near that the expansion may be considered the same; but in order to prove the result practically; blocks of cement concrete, fourteen inches long and four inches deep by three inches wide were made, in which bars of iron were imbedded, the bars varying in size 2x1-32 of an inch to 2x2 inches and 12 inches long.

"On testing these by fire no difference in effect was found to be produced on the concrete by the different masses of metal contained within them.

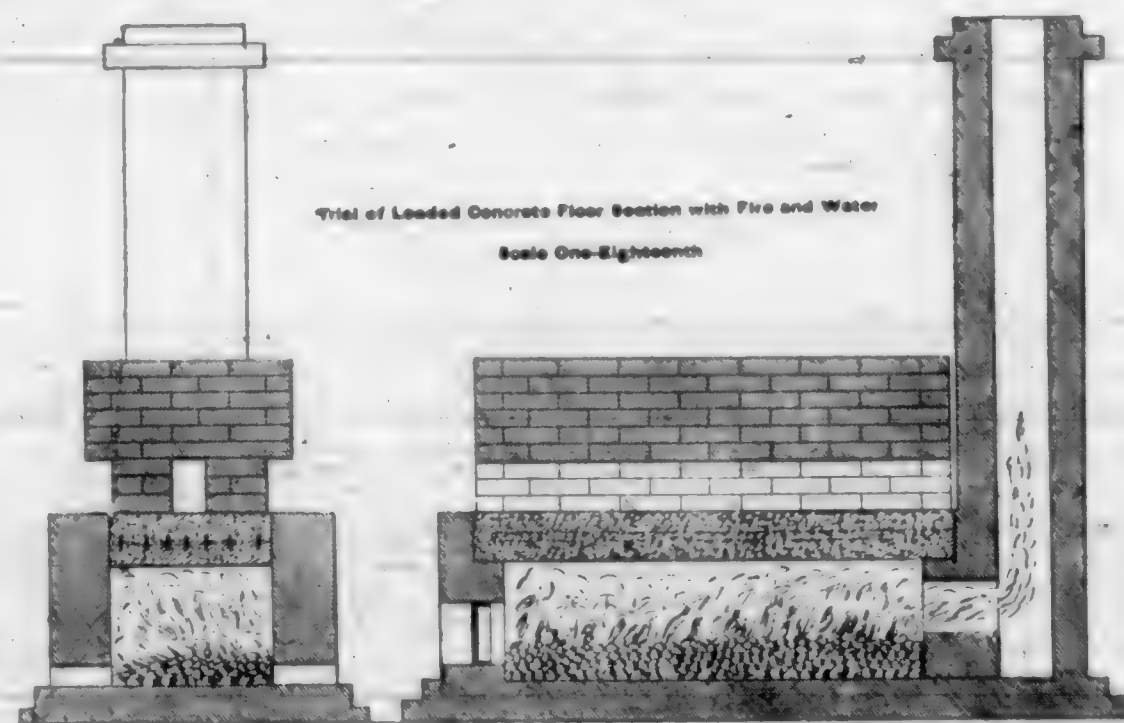
"As a final test, bars of iron two feet long by one-half inch thick were imbedded in blocks of concrete; these blocks on being exposed to the red heat of a furnace for six hours, were found to be entirely sound and good when taken out; the synchronism existing between the expansion of the two materials, whatever the size of the metal, was thus placed beyond question, and in respect to this combining concrete with iron for building purposes the two materials may be regarded as practically homogeneous.

"These results as may be supposed, were in the highest degree satisfactory and assuring.

"In order to test the effect of fire and water to a real floor of the concrete construction, combined with iron, a section of one sufficiently large to leave no doubt as to the result of fire and water to a real floor in actual use. Accordingly a furnace was built as represented in the following plate, the top being a slab or floor section six feet long by two feet wide, and seven and one half inches thick.

"The tie-metal in gridiron form was placed at the middle of the thickness, three inches of concrete being above and three inches below the metal.

"The furnace was made with a range of air holes on either side, to insure perfect combustion and intense heat.



"Loose bricks were piled upon the furnace top until a load was obtained of 300 pounds per square foot over the whole surface, the deflection being with this load 1-32 of an inch in a span of five feet.

"The fuel was arranged to form an incandescent bed six inches at twelve inches below the under face of the concrete slab.

"The fire was kindled at six o'clock in the morning, had by eleven become an intense heat perfectly uniform over the entire surface, and the bottom of the concret was also at a glowing red heat all over.

"At this intensity the fire was kept up until 4 P. M., a period of ten hours from the lighting of it. During this time the slab had deflected three-eighths of an inch.

"A stream of cold water was now thrown forcibly against



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