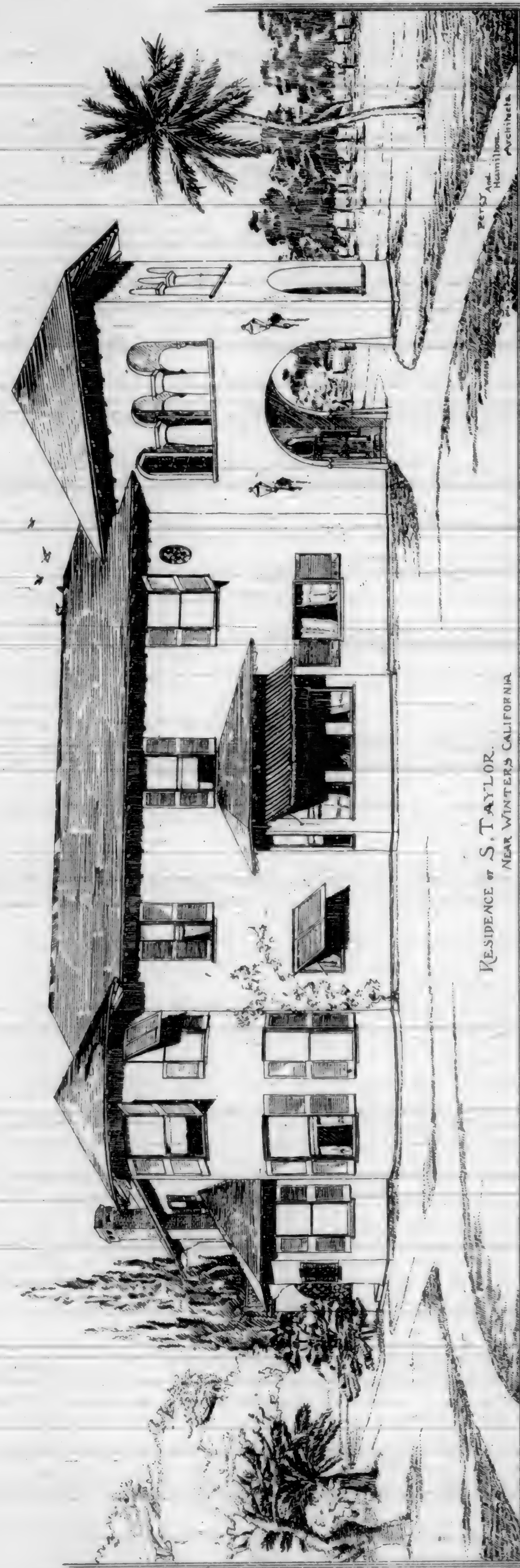
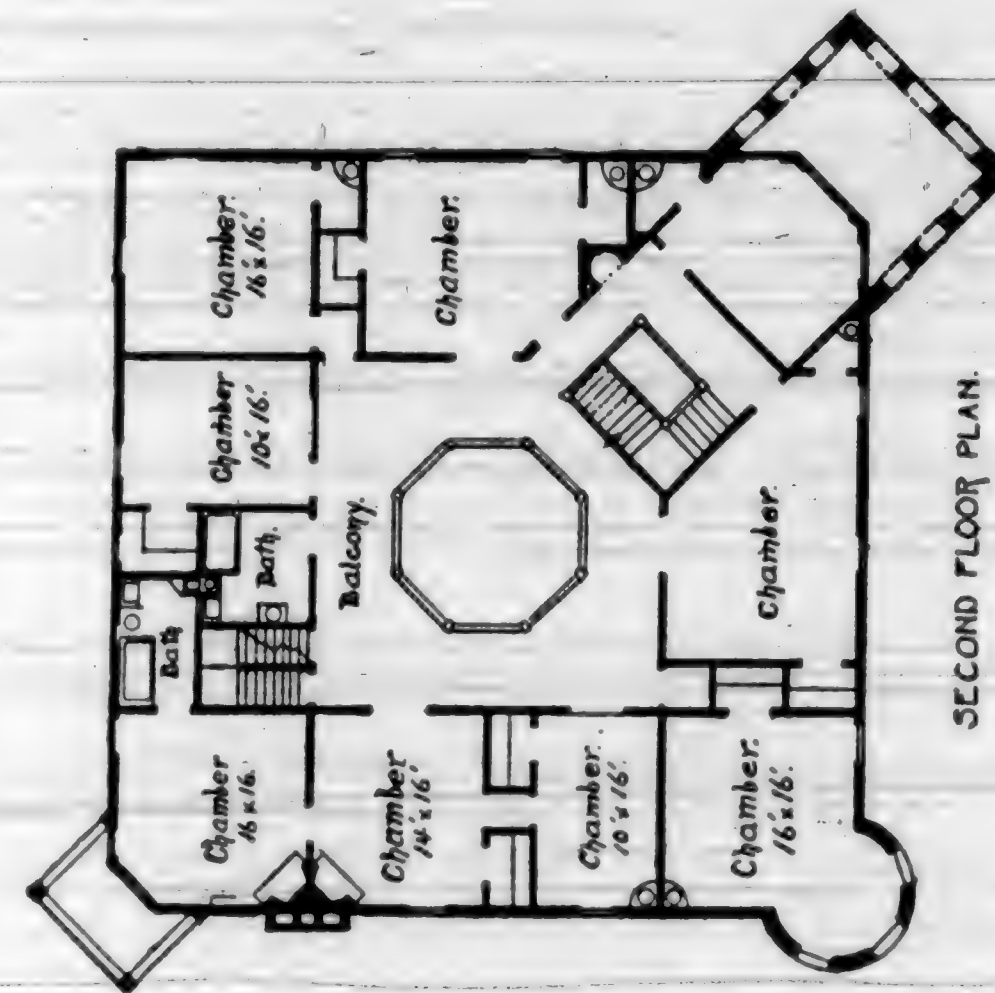
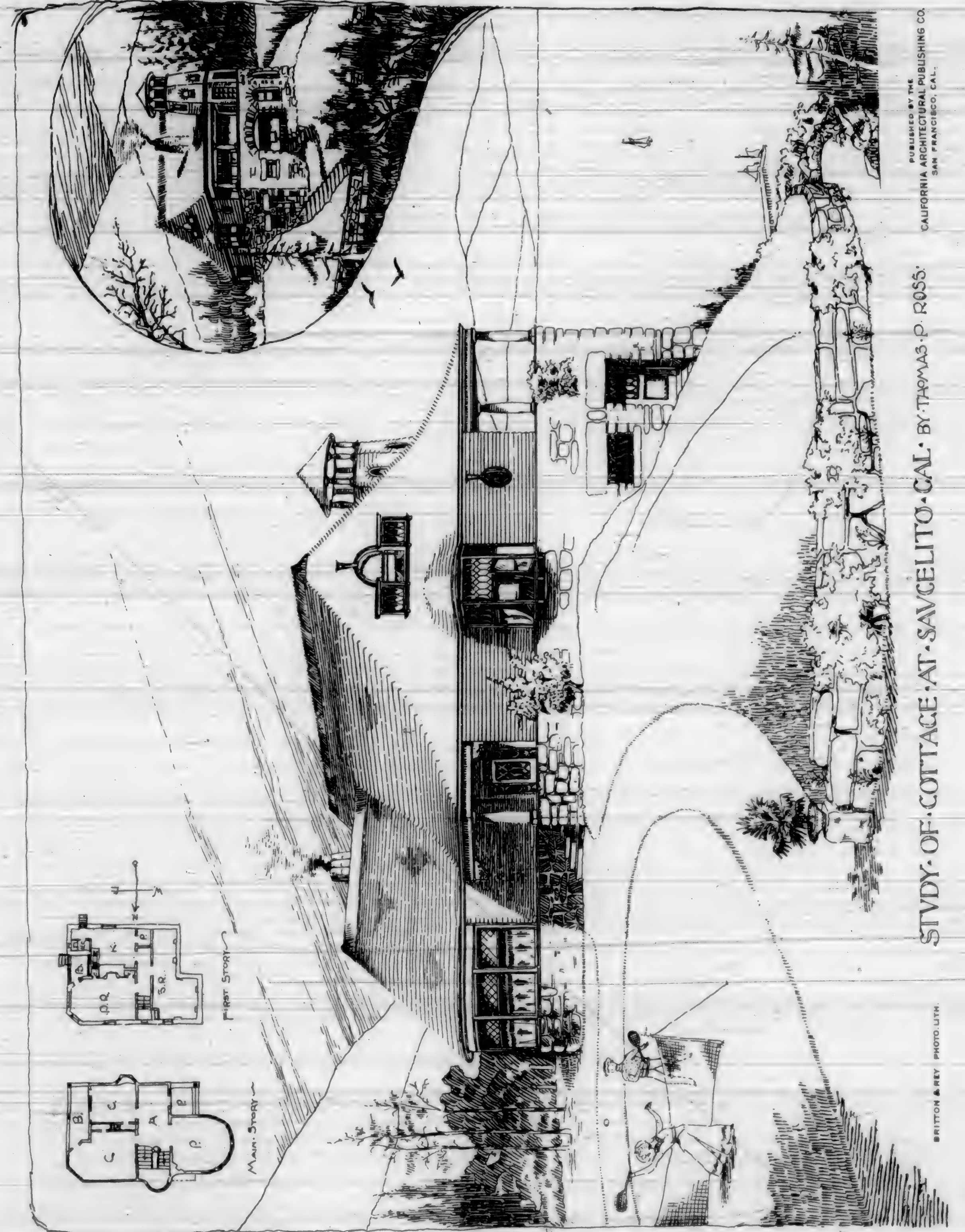




BRITTON & REY PHOTO LITH.

RESIDENCE OF S. TAYLOR.
NEAR WINTER'S CALIFORNIA

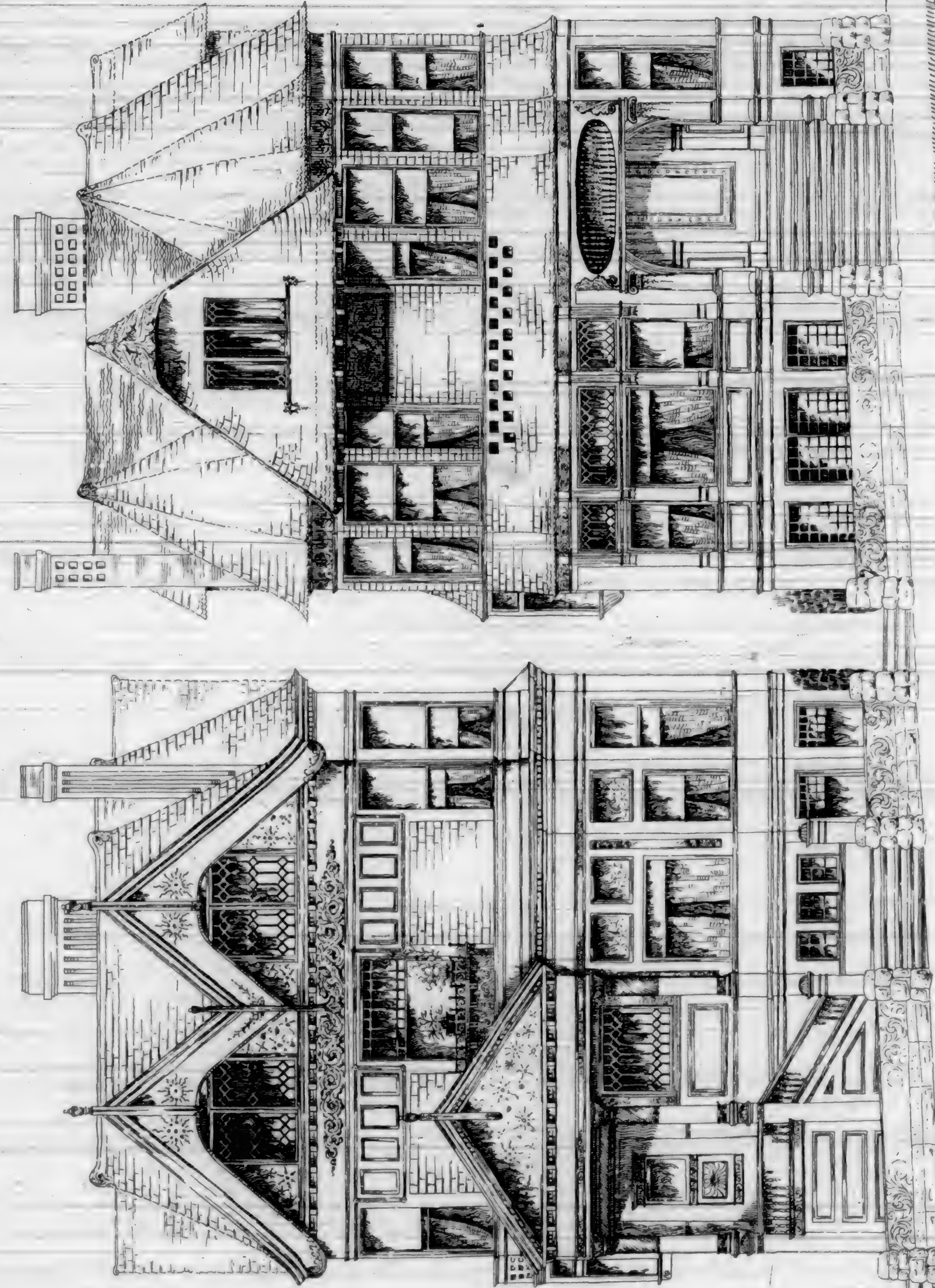
PUBLISHED BY THE
CALIFORNIA ARCHITECTURAL PUBLISHING CO.
SAN FRANCISCO, CAL.



BRITTON & REY PHOTO LITH.

STUDY OF COTTAGE AT SAUCELITO, CAL. BY THOMAS P. ROSS.

PUBLISHED BY THE
CALIFORNIA ARCHITECTURAL PUBLISHING CO.
SAN FRANCISCO, CAL.



FRONT ELEVATION.

W. H. LILLIE, ARCHITECT
23.29. ST. ANNE'S BULDG.

PUBLISHED BY THE
CALIFORNIA ARCHITECTURAL PUBLISHING CO.
SAN FRANCISCO, CAL.

BRITTON & REY PHOTO LITH.



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

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

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

THE illustration shows the new residence of Mr. Samuel Taylor, and is to be erected on the site of the old Wolfskill home near Winters, California. The rooms are arranged around an open court 30x30 feet, in which will be a fountain and palm trees. On the level of the second story there will be a balcony seven feet in width, leaving an octagonal opening sixteen feet across. This opening is arranged so that it may be closed with glass in the winter to admit its being warmed.

The exterior is in form nearly a square of sixty-two feet and is designed in simple Spanish Style and the walls are coated with rough cement work on iron laths, giving it somewhat the appearance of an adobe house.

The rooms are spacious and well lighted from two sides. The billiard room and dining room are to be finished with black walnut grown on the place. All other parts will be finished in natural red wood.

The plumbing is to be most complete, with modern fixtures, and the entire house will be lighted, and the heating done by means of hot water. Electric bells and other conveniences will be provided.

Messrs. Percy & Hamilton, of this city are the Architects

THE Study of Cottage at Saucelito, California, is from designs by Mr. T. P. Ross, of this city, Architect.

THE *Wohnhaus des Baumeister* is from the Architectural *Skizzenbuch*, 1874.

THE two detached residences shown in the illustration, are in course of erection on the corner of Broadway and Gough streets for Mr. Walker and are from designs by Mr. W. H. Lillie, Architect, of this city.

The architects of the world are to be invited to a congress at Chicago during the World's Fair to discuss architectural subjects and the interests of the profession.

NOTICE OF MEETINGS.

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

GEO. H. SANDERS, Pres.	OLIVER EVERETT, Vice-Pres.
H. T. BESTOR, Sec.	JOHN M. CURTIS, Tres.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at Academy of Sciences Building.

JOHN RICHARDS, Pres.	L. WAGONER, 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.
W. I. CROSETT, Sec.	O. BROOKS, Treas.

MASTER PAINTERS' ASSOCIATION OF THE PACIFIC COAST.

E. M. GALLAGHER, Pres.	H. G. JARMAN, Sec.
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LEGAL DECISIONS.

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

LIEN OF ARCHITECT.—An architect is within the protection of the Alabama Code, as a person who has done "work or labor upon * * * a building or improvement on land." But, the description of a building upon which a mechanic's lien is sought to be enforced must be sufficient for a person familiar with the locality to identify it.

Hughes v. Torgerson, Supreme Court of Alabama, 11 South. Rep. 298, 57.

DAMAGES FOR NON-PERFORMANCE OF CONTRACTS.—It is the rule that, in cases of contracts wholly unperformed, such damages as naturally result from the breach of the contract are presumed to have accrued to the injured party and may be recovered, and the measure of such damages in such cases should be the difference between the contract price and the reasonable cost of the work or thing, at the usual and ordinary price.

Richter v. Meyer, Appellate Court of Indiana, 31 N. E. Rep. 582, 73.

DAMAGE FROM DROPPING OF MORTAR.—Where a person sustains damage by the dropping of mortar and bricks during the erection of a wall next to the premises occupied by her, the party for whom the wall was being erected, is not liable for such damage, but the contractor would be, if any one, if it was not a necessary result of the building of the wall, but was caused by the negligence of the contractor or of his servants. The injury caused by dust arising from the dumping of loads of brick near a person's residence might be so trifling as not to be actionable, or there might be evidence of such excessive and long-continued annoyance therefrom as to warrant the submission of the question of damage caused thereby to the jury.

Pye v. Faxon, Supreme Judicial Court of Massachusetts, 31 N. E. Rep. 640, 138.

EXTRAS UNDER CONTRACT.—A written building contract provided that the contractor should, to the satisfaction of the architects, perform and finish "all work included in the entire completion" of the building for a named sum, and that he should make no claim for additional work unless the same should be done pursuant to a written order from the architects, and that written notice of all claims should be given the architects within three days of the beginning of such work. Under this contract in the absence of an agreement modifying it, the builder was not liable for extra

work unless it was done on a written order; and the contractor could recover for extra work if it was done "at the request, or with the knowledge and consent, express or implied," of the builder, "or his agent," without a waiver by the builder of a written order, or of his independent promise to pay for the work.

Wortman v. Kleinschmidt, Supreme Court of Montana, 30 Pac. Rep., 260, 153.

EFFECT OF CHANGES IN BUILDING ON BOND FOR PERFORMANCE OF CONTRACT.—In an action upon the bond of a contractor given for the faithful performance of a contract, for the construction of a building where the contract contained a clause by which the owner retained the right to alter or modify the original design, and to add to or diminish from the contract price, and the owner or the architect were at liberty to make any alteration in the plan, form, construction or detail, described in the drawings and specifications, without making void the contract, and it is found by the referee trying the case, that a change was made in the plan of the building by moving the wall out two inches, and the specifications were changed by substituting walnut, cherry and poplar, instead of pine, in certain portions of the building; these changes and modifications were provided in the contract, and the bondsmen were not released by reason of such changes; and when it is found that the original specifications exhibited to the bondsmen with numerous alterations noted therein, were taken by the architect to be copied, and it does not appear that the additions made upon the copy are material, and the original is inadvertently destroyed in the architect's office, the destruction of the original specification will not avoid the contract or release the bondsmen.

McLennan v. Wellington, Supreme Court of Kansas, 30 Pac. Rep. 183, 229.

BUSINESS MOSAICS.

An architect's level is an instrument of a new form for general use by architects, builders, graders, sewer workers, ditchers and all other workers who desire a convenient instrument.

The telescope has an adjustable focus and the bubble of the level is in view when looking through the tube. The telescope moves through a vertical arc with vernier scale for observing vertical lines and heights, and is also provided with a three inch compass for setting off angles, and can be readily set and adjusted for horizontal or vertical lines.

The price of the instrument complete with tripod is \$33.00, and without tripod but made to set on a frame, \$28.00.

This low-priced instrument for this kind of work takes the place of a \$200.00 one. This as well as all other scientific instruments are to be had of the A. Lietz Co., No. 422 Sacramento street, this city.

The Roche Harbor Lime Co. have made a new departure in the shipment of lime. The cooperage of their barrels is such that there is no waste. Instead of sixteen staves they make but two. Out of a shipment of 5,000 barrels there was not a barrel broken.

One of the features of the California exhibit at the Exposition will be a pampas palace, twenty feet square, which will be erected in the state building. The palace is the contribution of Mrs. Harriet W. R. Strong, of Whittier, Cal., who is a large grower of pampas plumes.

TENDERS TO BE RECEIVED.

Treasury Department, Office Supervising Architect, Washington, D. C., September 6th, 1892. Sealed Proposals will be received at this office until 2 o'clock p. m. on the 4th day of October, 1892, and opened immediately thereafter, for all the labor and materials required for the erection and completion (except plumbing and heating apparatus) of the extension to the U. S. Court House, Post Office, etc., building at Dallas, Texas, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent at Dallas, Texas.

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 and all bids, or to waive any defect or informality in any bid, if it be deemed in the interest of the Government to do so. All proposals received after the time stated will be returned to the bidder. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for the erection and completion (except plumbing and heating apparatus) of the extension to the U. S. Court House, Post Office, etc., building at Dallas, Texas," and addressed to,

W. J. EDBROOKE,
Supervising Architect.

SANITARY PRECAUTIONS AGAINST CHOLERA.

It is a well known fact that the germs of Cholera thrive most in damp cellars, decaying wood, and in all places where decomposition of any kind has set in, but Carbolineum Avenarius still sells at the same price, even with the increased demands for it, and it is well known that as a disinfectant, a wood preservative, a preventative of dampness in places where dampness is liable to take place, Carbolineum has no equal. Property owners will save money both from a monetary and sanitary point. It prevents dampness, dry rot, and fungus in wood, and drives out moisture. People having damp cellars should paint them with Carbolineum, thereby making them dry, and from a sanitary point, a preventative against Cholera.

The most eminent authorities agree that impure water is a source of danger that should always be guarded against, and more especially at times when epidemics prevail.

The most efficacious apparatus for the purification of water is the Rapid Safety Filter, as supplied by the company at 1209 Market street. Try one and you will find that you cannot do without it.

THE J. L. MOTT IRON WORKS' "SUNRAY" HOT WATER HEATER.

A hot water heater of new construction has been placed upon the market by the J. L. Mott Iron Works, of New York and Chicago, a complete view of which is illustrated in Fig. 1 of the accompanying cuts. The heaters are made in twelve sizes, to heat from 350 to 5,000 feet of radiators, and are arranged in batteries to supply heat for 50,000 feet of radiation. Each section is bolted on the one immediately above it so that any one section can be taken out and replaced without interfering with the others, and it is claimed that these separate bolts have the advantage of making a stronger joint and one that will always remain tight under

any change of temperature. The flanges that form the joints between the sections are milled by a machine specially designed for the purpose which makes the surfaces so true that a leak is impossible. Each tier of flues in the upper sections is accessible by separate clean-out doors, so that each set may be cleaned without exposing the others.

The heaters are furnished with a new pattern of rocking grate which is claimed will clear the fire of all clinker and ashes without waste of fuel. It is claimed that the arrangement of fire-pot, the spaces above the fire-pot and the combustion chambers in the top of the heater are new features. It will be noticed in the sectional cut, Fig. 2, that the water spaces are directly over each other; this construction enables all the gases generated by the burning fuel to pass freely to the combustion chamber at the top of the heater, where they are consumed before escaping to the chimney. It is claimed for this method of construction that a higher temperature



FIG. 1. COMPLETE VIEW OF HEATER.

can be maintained at the top of the heater than in the fire-pot, and that the whole of the heater surface is as hot as the fire-box.

The return flues shown in Fig. 3 prevent the escape of the heated gases till the heat has been extracted by coming into contact with the water spaces.

It is claimed by the makers of this heater that the top of any water heater should be the hottest part of it, as the return water enters at the bottom and gets hotter and hotter till it reaches the top, where it escapes up the flow pipes to the radiators. The makers assert that this heater has a positive circulation, that all the water entering at the bottom of the heater is passed directly over all parts of the fire and yet no friction is allowed to prevent the water escaping freely up the flow pipes as soon as it has received all the heat it

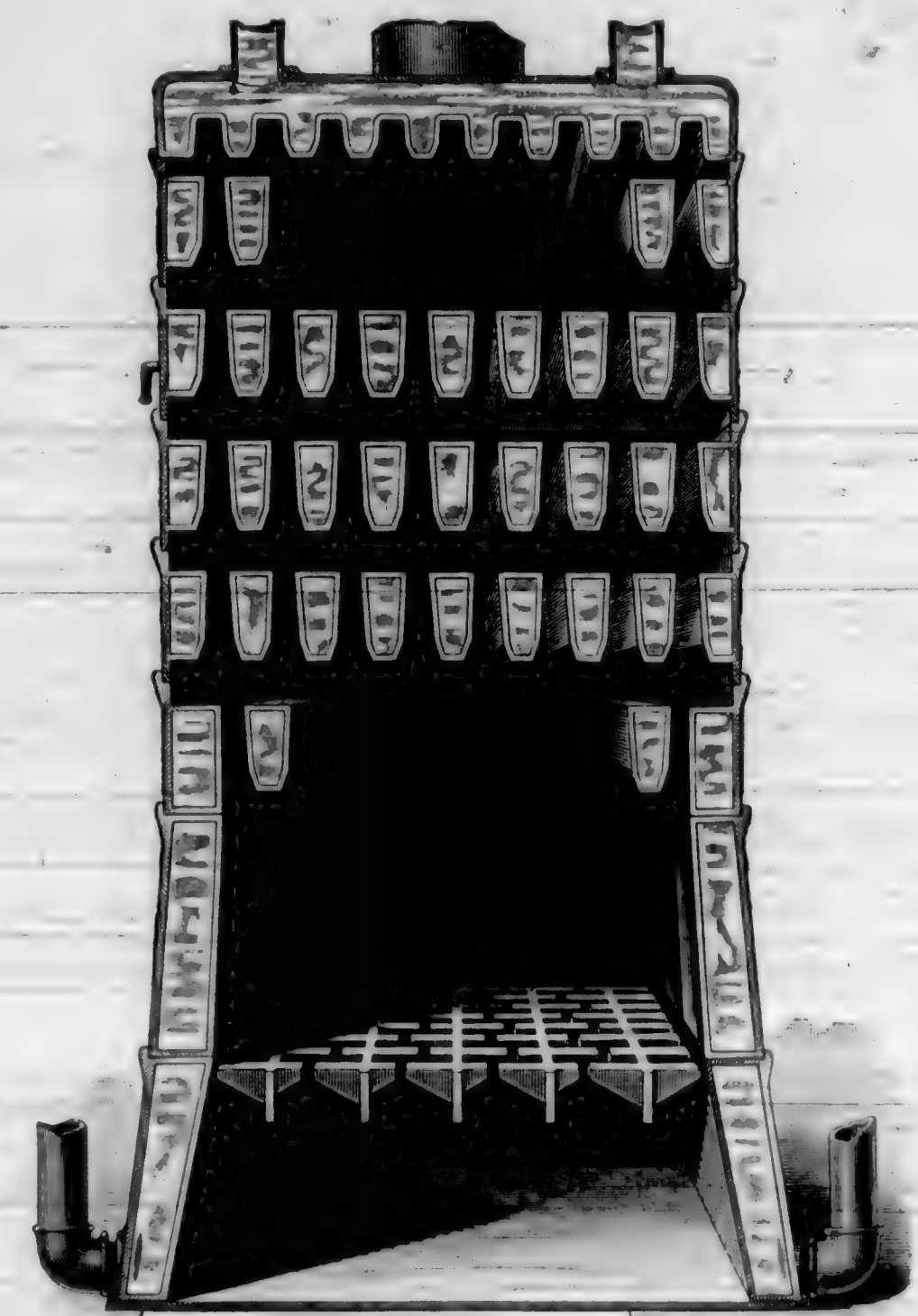


FIG. 2. SECTIONAL VIEW SHOWING WATER SPACES.

can carry. The manufacturers further state the "Sunray" heater has been thoroughly tested to prove its economy, and has exceeded the expectations of the inventors. The heater can be quickly erected and can be taken into any building by an ordinary door. See advertisement on page v.

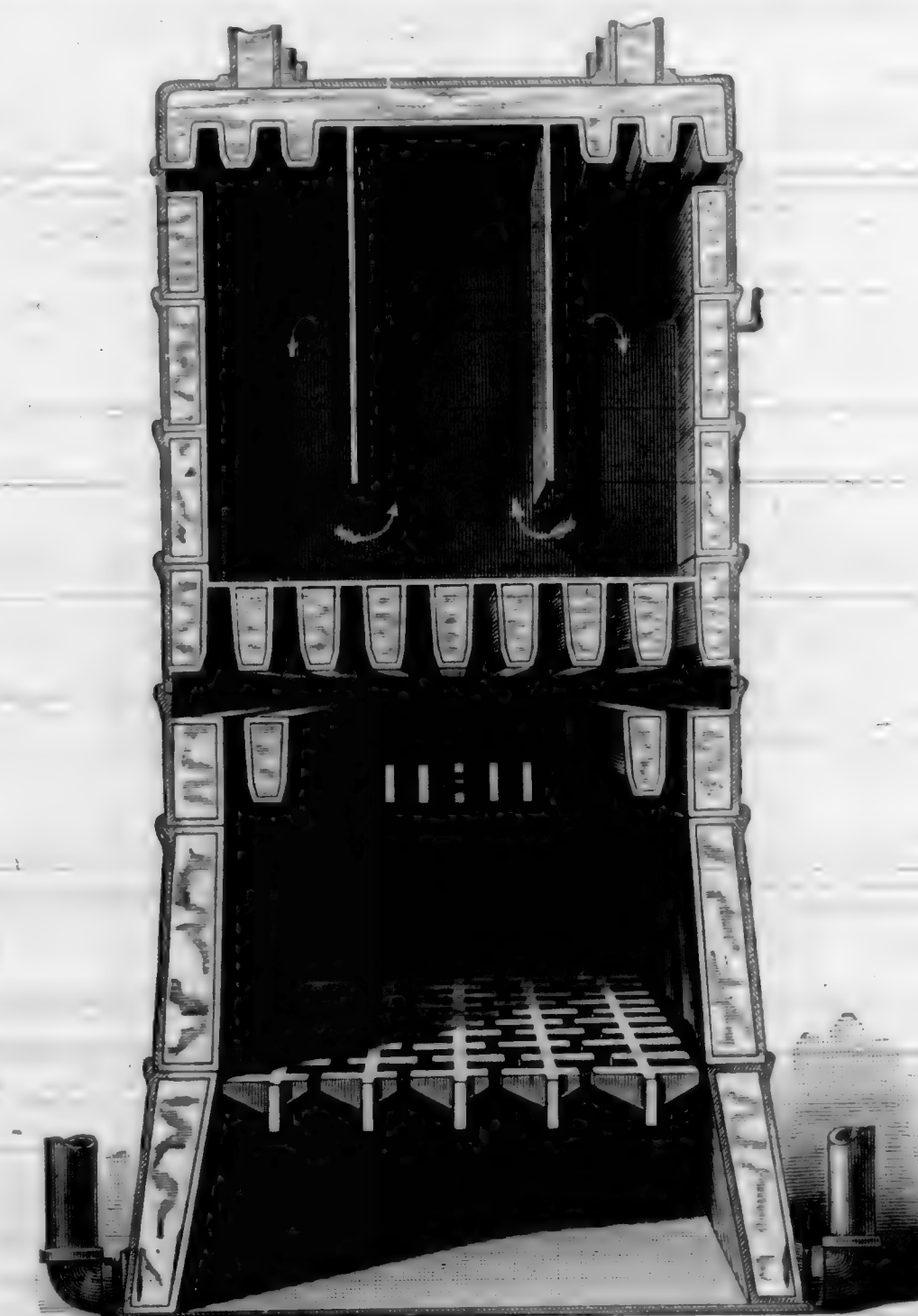


FIG. 3. SECTIONAL VIEW SHOWING RETURN FLUES.

Barthol near 23rd. Moving two-story frame owner, Estate of C. Mangel; architect, H. Gellfuss; contractor, P. G. Martin; cost, \$2,254; signed, Aug. 18; filed, Aug. 19; payments, 1st and 15th days of each month 75 per cent. as work progresses; balance 35 days.

Broadway near Franklin. To build; owner, J. W. Van Bergen; architect, H. Gellfuss; contractor, F. W. Kern; cost, \$10,813; signed, Aug. 2; filed, Aug. 4; payments, \$2,027, frame up; \$2,027, floors laid and partitions set; \$2,027, inside standing finish on; \$2,027, completed; \$2,705, 35 days.

Broadway near Franklin. Painting, graining, etc.; owner, J. W. Van Bergen; architect, H. Gellfuss; contractor, Chas. Mechem; cost, \$1,952; signed, Aug. 2; filed, Aug. 3; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance 35 days.

Broadway near Franklin. Plumbing, gas-fitting, etc.; owner, J. W. Van Bergen; architect, H. Gellfuss; contractor, Chas. Mechem; cost, \$1,952; signed, Aug. 2; filed, Aug. 3; payments, 1st and 15th days of each month 75 per cent. as work progresses; balance 35 days.

Broderick and Park Hill Road. Two-story and basement frame; owner, Edmund E. Hill; architects, Shea & Shea; contractor, James McConahy; cost, \$6,500; signed, Aug. 16; filed, Aug. 17; payments, \$1,218, frame up; \$1,219, brown mortar on; \$1,219, hard finished; \$1,219, completed; \$1,625, 35 days.

Bush near Powell. Eight flats and alterations or rear building; owner, Mrs. L. M. Bigelow; architect, J. Cather Newsum; contractors, Belyea & Rogers; cost, \$17,350; signed, Aug. 26; filed, Aug. 29; payments, \$1,500, excavation completed and foundations in; \$1,500, frame of both buildings up; \$1,500, rafters up, roof boards on and rough plumbing in; \$1,500, enclosed, interiors ready for lathing; \$1,500, brown mortar on and outside primed; \$1,500, plastered, and interior finished; \$4,000, completed; \$4,350, 35 days.

California near Battery. Addition to 4th story; owner, Robt. Sherwood; architect, Clinton Day; contractor, J. T. Grant; cost, \$12,881; signed, Aug. 16; filed, Aug. 16; payments, \$3,750, brick work completed; \$3,000, framing and standing ready for plaster, roof lined and exterior sashes hung; \$2,910, completed; \$3,221, 35 days.

California near Gough. Painting; owner, Jos. Hyman; architects, Salfeld & Kohlberg; contractor, J. F. Sullivan; cost, \$780; signed, July 28; filed, July 29; payments, \$250, primed; \$300, completed; \$230, 35 days.

California near Hyde. Two-story frame; owner, Mrs. C. Comerford; architects, Shea & Shea; contractor, J. F. Klenck; cost, \$1,500; signed, July 25; filed, July 26; payments, \$500, frame up and rafters on; \$500, brown mortar on; \$500, plastered; \$500, completed; \$1,148, 35 days.

California near Montgomery. Steel fixtures for vaults; owners, German Savings and Loan Society; architects, Krutizer & Kollofrath; contractors, Specialty Manufacturing Co.; cost, \$1,477.50; signed, Aug. 6; filed, Aug. 15; payments, \$1,108, completed; \$369.70, 35 days.

California and Webb. Alterations and additions; owners, San Francisco Savings Union; architect, Wm. Curlett; contractors, Smith Bros.; cost, \$33,200; signed, July 12; filed, Aug. 2; payments, at the end of each month, 75 per cent. of value as work progresses; balance 35 days.

Caselli Ave. Cottage and basement; owner, Constantine Holular; contractor, George Luck; cost, \$1,500; signed, Aug. 6; filed, Aug. 11; payments, \$400, studding up; \$400, brown mortar on; \$400, completed; \$360, 35 days.

Castro near Henry. To build; owner, John Frawley; architects, Shea & Shea; contractor, Alfred Hawkins; cost, \$3,750; signed, Aug. 17; filed, Aug. 18; payments, \$703, frame up and rafters on; \$703, brown mortar on; \$703, hard finished; \$703, completed; \$908, 35 days.

Cayton near Page. One-story frame; owner, R. Poehlman; architects, Mitrans & Coffey; contractor, H. R. Schmuckert; cost, \$2,650; filed, Aug. 27; payments, \$200, frame up and enclosed; \$500, plastered; \$350, completed; \$315, 35 days.

Chestnut near Dupont. Three-story frame; owner, Gustave Quadt; architect, S. A. Cooper; contractors, H. Behrens & Co.; cost, \$1,000; signed, Aug. 18; filed, Aug. 19; payments, \$1,000, frame up; \$1,000, brown mortar on; \$1,000, completed; \$1,000, 35 days.

Clay near Mason. Two-story frame; owner, Robt. Westfield; architect, R. H. White; contractor, J. A. Adams; cost, \$1,100; signed, Aug. 23; filed, Aug. 23; payments, \$100, brown mortar on; \$300, completed; \$200, 35 days; \$200, 40 days after last payment.

Collingwood near 19th. To build; owner, Mrs. M. J. Katz; contractors, Marcuse & Remmel; cost, \$1,800; signed, July 25; filed, Aug. 5; payments, \$450, frame up; \$450, brown mortar on; \$450, completed; \$450, 35 days.

Connecticut near Napa. One-story frame; owner, T. Connors; architect, M. J. Welsh; contractor, J. Gacken; cost, \$1,100; filed, July 27; payments, \$412.50, brown mortar on; \$412.50, completed; \$275, 35 days.

Connecticut near Napa. One-story frame and rough basement; owner, F. O. Sellman; architect, Samuel Hatfield; contractor, John Sandover; cost, \$1,253; signed, Aug. 11; filed, Aug. 11; payments, \$340, foundation completed, frame up, rough boards on and rustic on basement; \$341, brown mortar and 1st coat paint on; \$550, completed; \$314, 35 days.

Day near Church. One-story frame; owner, Philip Fraher; architect, M. J. Welsh; contractor, Ivory Wells; cost, \$2,200; signed, Aug. 26; filed, Aug. 26; payments, \$550, frame up; \$550, brown mortar on; \$550, completed; \$550, 35 days.

De Long Ave. and Frederick. Two-story frame; owner, G. D. Clark; architect, Oliver Everett; contractor, D. H. Matheson; cost, \$3,400; signed, Aug. 10; filed, Aug. 15; payments, \$982.50, roof on and frame braced; \$982.50, brown mortar on; \$982.50, completed; \$982.50, 35 days.

Eleventh near Market. Settling in nave of church; owners, Church of the Advent; architects, Coxhead & Coxhead; contractor, Hugh Williamson; cost, \$1,300; signed, July 14; filed, July 18; payments, 1st day of each month 75 per cent. as work progresses; balance 35 days.

Elgin Park, No. 28. Alterations and additions; owner, E. T. Jones; contractor, H. R. Schmuckert; cost, \$1,050; signed, Aug. 20; filed, Aug. 22; payments, \$300, frame up; \$300, brown mortar on; \$288, completed; \$282, 35 days.

Ellis St. No. 324 and 326. Alterations and additions; owner, Wm. Green; architect, C. A. Lutgens; contractor, W. J. Field; cost, \$3,343; signed, Aug. 23; filed, Aug. 25; payments, \$664, frame up and rustic on; \$664, brown mortar on; \$664.25, plastered and exterior primed; \$665 completed; \$665.75, 35 days.

Fair Oaks and 21st. Two-story frame; owner, Mrs. E. L. Cowie; architects, Percy & Hamilton; contractor, C. E. Dunshie; cost, \$5,016; signed, Aug. 23; filed, Sep. 1; payments, 1st Saturday of each month 75 per cent. as work progresses; balance 35 days.

Fell near Devisadero. One-story frame and basement; owners, F. G. Rider and wife; architect, W. H. Lillie; contractor, Jos. Kennedy; cost, \$2,057; signed, Aug. 23; filed, Aug. 24; payments, \$320.25, frame up; \$300, enclosed and inside partitions set; \$300, brown mortar on; \$300, standing finish on; \$300, completed; \$511.75, 35 days.

Fifth and Bluxome. Two-story brick; owner, John Furness; architect, C. I. Havens; contractor, H. H. Larsen; cost, \$5,000; signed, Aug. 15; filed, Aug. 17; payments, 1st and 15th days of each month 75 per cent. as work progresses; balance 35 days.

Fillmore and Wildly. To build; owner, D. J. Creedon; architect, T. J. Welsh; contractors, Currie & Loomer; cost, \$5,975; signed, Aug. 19; filed, Aug. 20; payments, \$1,300, frame up; \$1,400, brown mortar on; \$1,275, plastered; \$1,225, completed; \$1,775, 35 days.

Fillmore and Grove. Two-story frame; owner, Mrs. E. L. Lowe; architects, Henriksen & Mahoney; contractor, Geo. Lack; cost, \$5,380; signed, Aug. 3; filed, Aug. 6; payments, \$1,010, rustic on and roof covered; \$1,010, brown mortar and outside on; \$1,010, plastered and sashes glazed and hung; \$1,012, completed; \$1,348, 35 days.

Fourteenth near Mina. Three-story frame; owner, L. Concannon; architect, C. J. I. Devlin; contractor, R. Fahy; cost, \$4,300; signed, Aug. 12; filed, Aug. 13; payments, \$500, frame up; \$500, enclosed and roof on; \$1,000, exterior mill work completed; \$1,000, woodwork ready for painting; \$250, completed; \$1,050, 35 days.

Fourteenth near Howard. Seven flats; owner, Mary A. Williams; architect, H. G. Clinton; contractors, Greenwood Contracting Co.; cost, \$10,000; signed, Aug. 6; filed, Aug. 6; payments, \$2,100, when brown mortar is on design B; \$1,850, brown mortar on all; \$1,850, completed; \$4,500, 35 days.

Frederick and De Long Ave. Two-story frame; owner, G. D. Clark; architect, Oliver Everett; contractor, D. H. Matheson; cost, \$3,400; signed, Aug. 8; filed, Aug. 9; payments, \$982.50, walls sheathed and roof and frame permanently braced; \$982.50, brown mortar on; \$982.50, completed; \$982.50, 35 days.

Fulton near Broderick. Plumbing and gas-fitting; owners, Cranston & Keenan; architect, Edward Burns; contractor, H. Williamson; cost, \$2,097; signed, Aug. 11; filed, Aug. 12; payments, \$1,018.50, rough plumbing and cast iron sewers in; \$524.25, completed; \$544.25, 35 days.

Fulton near Lott. One-story and basement frame; owner, Erlend Drysellus; contractor, J. Bucher; cost, \$2,200; signed, July 30; filed, Aug. 1; payments, \$550, enclosed; \$550, brown mortar on; \$550, completed; \$550, 35 days.

Gough near Willow Ave. Two-story frame; owner, Wm. John; architects, John & Balozynski; contractors, Wm. Plume; cost, \$10,470; signed, Aug. 26; filed, Aug. 26; payments, \$2,000, frame up; \$1,500, enclosed, floors laid and partitions set; \$2,000, sand finished and plastered; \$2,300, completed; \$2,670, 35 days.

Green near Kearny. Alterations and additions; owner, Francesco Biondi; contractors, Picasso & Barlan; cost, \$3,250; signed, Aug. 4; filed, Aug. 4; payments, \$610.50, house raised, concrete work done and 1st floor joists in; \$600, enclosed and roof ready for tinning; \$600, brown mortar on; \$600, completed; \$812.50, 35 days.

Hampshire near 21st. One-story frame and part of basement; owner, Henry Kasch; contractor, Henry Burns; cost, \$1,850; signed, Aug. 3; filed, Aug. 8; payments, \$450, frame up; \$450, brown mortar on; \$450, completed; \$500, 35 days.

Harrison near 21st. Flats and basement; owner, Roger Fitzpatrick; contractor, R. K. Albertson; cost, \$2,925; filed, Aug. 15; payments, \$425, 1st floor joists on; \$1,000, brown mortar on; \$1,000, plastered; \$500, completed.

Harrison near 23rd. Two-story frame with brick basement; owner, D. F. Keefe; architect, M. J. Welsh; contractors, Brennan Bros.; cost, \$3,677; signed, Aug. 11; filed, Aug. 11; payments, \$918, frame up; \$918, brown mortar on; \$918, completed; \$920, 35 days.

Hawthorne near 2d. Three-story frame; owner, Martin Fahaney; contractor, T. C. Cochran; cost, \$5,625; signed, Sept. 1; filed, Sept. 1; payments, \$1,073, frame up; \$1,073, brown mortar on and outside mill work completed; \$1,073, plastered; \$1,074.75, completed; \$1,431.25, 35 days.

Hayes near Baker. Two-story frame; owner, F. W. Keuerleber; architect, H. Gellfuss; contractor, F. L. Hanson; cost, \$4,000; signed, Sept. 1; filed, Sept. 1; payments, \$600, frame up; \$600, roof on, floors laid and partitions set; \$600, brown mortar on and basement completed; \$600, inside standing finish on; \$600, completed; \$1,010, 35 days.

Hayes and Fillmore. Plumbing, gas-fitting, etc.; owner, Mary D. Armer; architect, C. J. Devlin; contractor, W. F. Wilson; cost, \$3,571; signed, Aug. 26; filed, Aug. 27; payments, \$1,300, all water, waste, gas and sewer pipes in; \$1,300, completed; \$671, 35 days.

Hayes and Fillmore. Hydraulic ram hoist and dumbwaiter; owner, Mary D. Armer; architect, C. J. Devlin; contractors, Cahill & Hall Elevator Co.; cost, \$1,700; signed, Aug. 24; filed, Aug. 27; payments, 75 per cent. as work progresses; balance 35 days.

Hayes and Fillmore. Lathing, plastering, cementing; owner, Mary D. Armer; architect, C. J. Devlin; contractor, J. J. Moorehouse; cost, \$3,250; signed, Aug. 25; filed, Aug. 27; payments, 75 per cent. as work progresses; balance 35 days.

Hayes and Fillmore. Painting, graining, varnishing, etc.; owner, Mary D. Armer; architect, C. J. Devlin; contractor, J. F. Sullivan; cost, \$5,125; signed, Aug. 23; filed, Aug. 27; payments, 75 per cent. as work progresses; balance 35 days.

Hayes and Fillmore. Tin, galvanized iron and slating; owner, Mary D. Armer; architect, C. J. Devlin; contractors, Forrester Cornea Works; cost, \$1,690; signed, Aug. 23; filed, Aug. 27; payments, 75 per cent. as work progresses; balance 35 days.

Hayes and Fillmore. Hot water heating system; owner, Mary D. Armer; architect, C. J. Devlin; contractors, W. W. Montague & Co.; cost, \$2,480; signed, Aug. 26; filed, Aug. 27; payments, 75 per cent. as work progresses; balance 35 days.

Hayes and Fillmore. Excavation, brickwork, etc.; owner, Mary D. Armer; architect, C. J. Devlin; contractor, Fitzsimon & Ambrose; cost, \$8,540; signed, Aug. 22; filed, Aug. 27; payments, 75 per cent. as work progresses; balance 35 days.

Hayes and Fillmore. Carpenters' and joiners' work, etc.; owner, Mary D. Armer; architect, C. J. Devlin; contractor, John Massey; cost, \$23,145; signed, Aug. 20; filed, Aug. 27; payments, 75 per cent. as work progresses; balance 35 days.

Hayes and Octavia. To build; owners, C. & L. Gurdotti; architect, C. M. Rousseau; contractor, Leonard B. Schmid; cost, \$3,000; signed, Aug. 12; filed, Aug. 13; payments, \$650, roof on; \$750, brown mortar on; \$750, completed; \$850, 35 days.

Henry and Castro. Five, two-story cottages; owner, C. F. McDermott; architect, John Gash; contractor, J. Morris; cost, \$4,000; signed, Aug. 17; filed, Aug. 18; payments, \$750, rustic on and roof shingled; \$750, brown mortar on; \$750, plastered, sashes in place and glazed; \$750, completed; \$1,000, 35 days.

Hill near Castro. One-story cottage and basement; owners, E. J. Bridges; contractors, Currie & Loomer; cost, \$1,700; signed, Aug. 12; filed, Aug. 12; payments, \$425, frame up and enclosed; \$125, brown mortar on; \$125, completed; \$425, 35 days.

Howard and 1st. Steel, iron work, anchors, etc.; owners, Selby Smelting and Lead Co.; contractors, Bigelow & Little; cost, \$2,287; signed, Aug. 24; filed, Aug. 30; payments, 1st day of each month 75 per cent. as work progresses; balance 35 days.

Howard and 1st. Brickwork, excavation, etc.; owners, Selby Smelting and Lead Co.; contractor, Adam Beck; cost, \$6,150; signed, Aug. 23; filed, Aug. 30; payments, 1st day of each month 75 per cent. as work progresses; balance 35 days.

Howard and 1st. Woodwork, tin roofing, painting, etc.; owners, Selby Smelting and Lead Co.; contractor, J. T. Grant; cost, \$1,500; signed, Aug. 24; filed, Aug. 30; payments, 1st day of each month 75 per cent. as work progresses; balance 35 days.

Howard near 15th. To build; owner, F. W. Runge; architect, H. Gellfuss; contractor, Emil Hoelle; cost, \$7,480; signed, Aug. 15; filed, Aug. 16; payments, \$1,122, frame up; \$1,122, enclosed, roofed, floors laid and partitions set; \$1,122, brown mortar on, yard and porch work finished; \$1,122, inside standing finish on; \$1,122, completed; \$1,379, 35 days.

Howard near 15th. Excavation, brickwork, etc.; owner, Andreas Zihm; architect, H. Gellfuss; contractor, Toni Muller; cost, \$7,150; signed, Aug. 8; filed, Aug. 9; payments, \$1,072, entire frame up; \$1,072, enclosed, roof on and partitions set; \$1,072, brown mortar on, porch and yard work finished; \$1,072, inside standing finish on; \$1,072, completed; \$1,700, 35 days.

Jackson near Central Ave. Two-story frame; owner, Abraham Beerman; architect, W. H. Lillie; contractors, White Bros.; cost, \$6,918; signed, Aug. 20; filed, Aug. 24; payments, \$1,238, frame up; \$1,038, enclosed; \$838, partitions set; \$1,037, standing finish on; \$1,037, completed; \$1,730, 35 days.

Jackson near Steiner. Cottage; owner, Wm. Deazener; architects, Kenitzer & Kollofrath; contractors, Schutt & Krecker; cost, \$2,785; signed, Aug. 18; filed, Aug. 19; payments, \$1,000, brown mortar on; \$900, ready for paint; \$887.50, completed; \$986.25, 35 days.

Kearny and Green. Three-story frame; owner, Agostino Matroni; contractor, P. Antonelli; cost, \$4,975; signed, July 26; filed, July 29; payments, \$1,000, each month, \$1,000 after commencement of work until sum of \$3,731.25 has been paid; \$1,243.75, 35 days.

Kearny near Geary. Iron, steel, brick, concrete work, etc.; owner, J. A. Knadt; contractor, Chas. Wagner; cost, \$1,000; signed, April 25; filed, Aug. 27; payments, \$550, iron and steel work set and arches turned; \$450, completed; \$250, 35 days.

Kearny and Union. Four story frame; owners, F. & J. Lagomarsino; architect, Emil Deperre; contractor, G. B. Cavaglia; cost, \$7,250; signed, Aug. 25; filed, Aug. 26; payments, \$1,400, grading completed and 1st story joists set; \$1,400, roof on and building enclosed; \$1,400, brown mortar on; \$1,312, completed; \$1,338, 35 days.

Kingston near Mission. One-story frame; owner, Chas. A. Roessler; contractors, Wm. & H. Plant; cost, \$1,000; signed, Aug. 26; filed, Aug. 29; payments, \$400, enclosed and brown mortar on; \$300, completed; \$258, 35 days.

Lake View, Lot 4, blk. 19. Five-room cottage; owner, Thos. Douglass; contractor, George Lack; cost, \$1,525; signed, July 26; filed, July 29; payments, \$380, studding up; \$380, brown mortar on; \$385, 35 days.

Larkin near Bush. Three-story frame and brick; owners, Thomas and Jane Daley; architect, C. J. Devlin; contractor, F. Klatt; cost, \$4,380; signed, Aug. 18; filed, Aug. 22; payments, \$500, frame up; \$1,000, ready for lathing; \$750, mill work completed; \$750, wood work finished and ready to paint; \$230, completed; \$1,100, 35 days.

Leont near Sacramento. One-story cottage; owner, Lottie Kern; architect, W. J. Mathews; contractor, Wm. G. Jones; cost, \$2,200; signed, Aug. 28; filed, Aug. 27; payments, \$572.50, 1/4 work done; \$572.50, 1/4 work done; \$572.50, completed; \$572.50, 35 days.

Lyon near Grove. Two-story frame, moving, alterations and putting store under one-story cottage; owner, Fannie Bronson; architects, J. J. & T. D. Newsum; contractor, A. B. Larnar; cost, \$4,240; signed, Aug. 18; filed, Aug. 23; payments, \$800, cottage moved, raised, chimneys built in store and foundation of new building in; \$800, store enclosed, floors laid and frame of new building up; \$800, new building enclosed, rough plumbing done in store, chimneys built in new building, and brown mortar on store; \$800, brown mortar on flats, store plastered and outside primed; \$807, completed, \$1,085, 35 days.

Market, bet. 5th and 6th. Alterations and additions; owner, Arthur Legallet; architect, Emil Deperre; contractor, M. Fennell & Son; cost, \$3,125; signed, July 30; filed, July 30; payments, \$900, brick work of main house completed and retaining walls of sidewalk done; \$900, grading completed, arches of sidewalk in place and iron work in place; \$740, completed; \$785, 35 days.

Market near Powell. Glazing; owner, Annie Donahue; architect, Chas. I. Havens; contractor, A. R. Kelley; cost, \$3,648; signed, Aug. 24; filed, Aug. 28; payments, 1st day of each month 75 per cent. as work progresses; balance 35 days.

Mission St. wharf, Pier No. 2. Two-story office; owners, John Rosenfeld's Sons; architect, J. W. Kinsman; contractors, Bradt & Baleman; cost, \$1,100; signed, Aug. 13; filed, Aug. 16; payments, \$300, enclosed and tin roof on; \$425, completed; \$75, 35 days.

Moss St. No. 32, 34, 34 1/2. Alterations and additions; owner, David Ross; architect, Emil Deperre; contractor, Dennis Chesney; cost, \$2,570; signed, July 28; filed, July 28; payments, \$650, building raised, underpinned and enclosed; \$650, plastered, sashes hung and glazed; \$650, completed; \$650, 35 days.

Moulton Ave. near Detroit. One-story building; owners, Pratt & Connors; contractor, T. R. Goto; cost, \$1,200; signed, Aug. 17; filed, Aug. 19; payments, \$400, enclosed and ready for plaster; \$400, plastered; \$400, completed.

Nineteenth near Noe. One-story frame; owner, Alex. Brown; contractor, Ralph Carey; cost, \$1,660; signed, Aug. 8; filed, Aug. 19; payments, \$415, rustic on and roof sheathed; \$415, brown mortar on; \$415, completed; \$415, 35 days.

Noe and 2nd. Frame dwelling; owner, Mary Wulffing; architect, Edward Burns; contractor, John Foster; cost, \$4,650; signed, Aug. 2; filed, Aug. 2; payments, \$900, building enclosed and roofed; \$1,100, brown mortar on; \$1,100, completed; \$1,550, 35 days.

Orazaba and Broad Ave. To build; owner, Palmers Parent; contractors, Morrison & Cook; cost, \$1,025; signed, Aug. 12; filed, Aug. 13; payments, \$400, frame up; \$325, plastered; \$300, 35 days.

Oregon near Davis. One-story brick; owner, F. S. Spring; architect, H. C. Macy; contractor, J. J. O'Brien; cost, \$2,350; signed, July 27; filed, July 30; payments, \$400, foundation complete; \$900, brick work ready to receive ceilings; \$57.50, completed; \$957.50, 35 days.

Pacific Ave. near Broderick. Frame school house of eight rooms; owners, Board of Education; architect, C. I. Havens; contractor, David Perry; cost, \$17,528; signed, Aug. 17; filed, Aug. 22; payments, \$3,200, frame up; \$3,200, gas and water pipes in and building plastered; \$3,200, standing finish on and outside primed; \$3,200, completed; \$4,382, 35 days.

Park Road and Park Hill Ave. Excavation, brickwork, etc.; owner, Sister M. Otilia; architects, Shea & Shea; contractor, B. J. Brennan; cost, \$1,330; signed, Aug. 1; filed, Aug. 3; payments, \$2,000, basement, joists in and grading complete; \$900, chimneys complete above roof line; \$789, completed; \$1,132, 35 days.

Park Road near Park Hill Ave. Three-story frame; owner, Sister M. Otilia; architects, Shea & Shea; contractor, Hugh Foster; cost, \$32,580; signed, Aug. 16; filed, Aug. 22; payments, \$4,073, 2d story joists set; \$4,073, roof boarded and rough plumbing in; \$4,073, shingled and primed; \$4,073, brown mortar on; \$4,073, plastered; \$1,073.25, completed; \$8,147.75, 35 days.

Powell near Bush. Excavating, brickwork, etc.; owner, Anna Jung; architects, Salfeld & Kohlberg; contractor, Fred Rouffice; cost, \$3,000; signed, Aug. 10; filed, Aug. 11; payments, \$1,200, frame up; \$1,000, enclosed, roof on, floors laid and partitions set; \$1,000, brown mortar on; \$1,000, completed; \$1,400, 35 days.

Post near Powell. Galvanized iron, tin work and skylights; owner, A. Aronson; architects, C. R. & J. M. Wilson; contractor, W. Cronin; cost, \$1,600; filed, July 30; payments, \$500, roof on and skylights in place; \$500, completed; \$400, 35 days.

Post near Powell. Lathing and plastering; owner, A. Aronson; architects, C. R. & J. M. Wilson; contractor, Chas. Danlap; cost, \$2,000; filed, July 30; payments, \$700, brown mortar on; \$700, completed; \$15, accepted; \$515, 35 days.

Post near Powell. Plumbing, etc.; owner, A. Aronson; architects, C. R. & J. M. Wilson; contractor, R. A. Vance; cost, \$2,420; filed, July 30; payments, \$250, rough work in; \$895, completed; \$665, 35 days.

Second Ave. near Clement. Cottage; owner, Wm. Brophy; contractor, John Foster; cost, \$1,100; signed, July 23; filed, July 29; payments, \$112.50, frame up, enclosed, floors laid and partitions set; \$112.50, completed; \$275, 35 days.

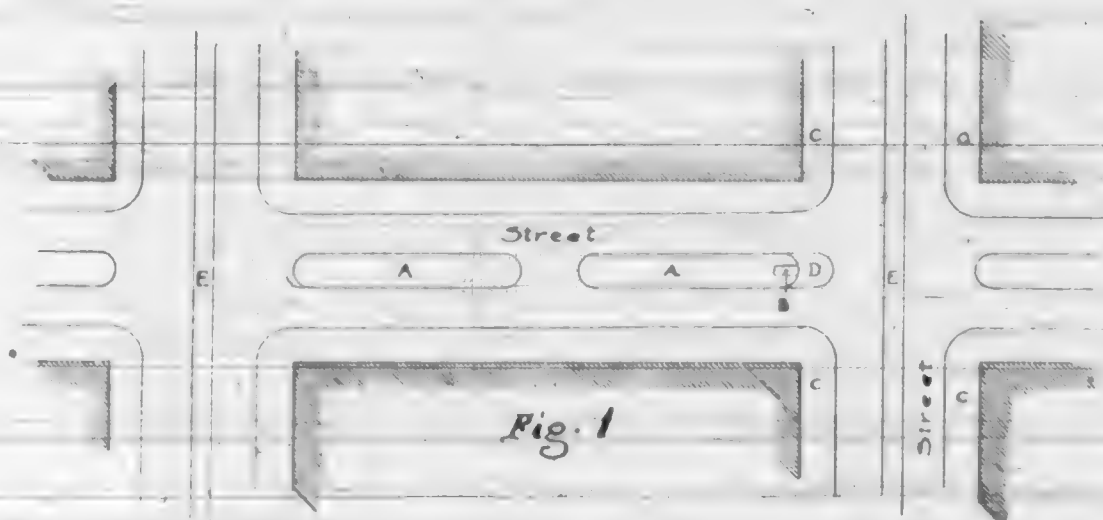
Scott and Sacramento. Plumbing, gas-fitting and drains; owner, W. E. Lane; architect, J. C. Newsum; contractors, Newman & Gordon; cost, \$1,200; signed, July 25; filed, Aug. 4; payments, \$400, rough plumbing in; \$400, completed; \$400, 35 days.

Shotwell near 15th

URBAN SCIENCE.

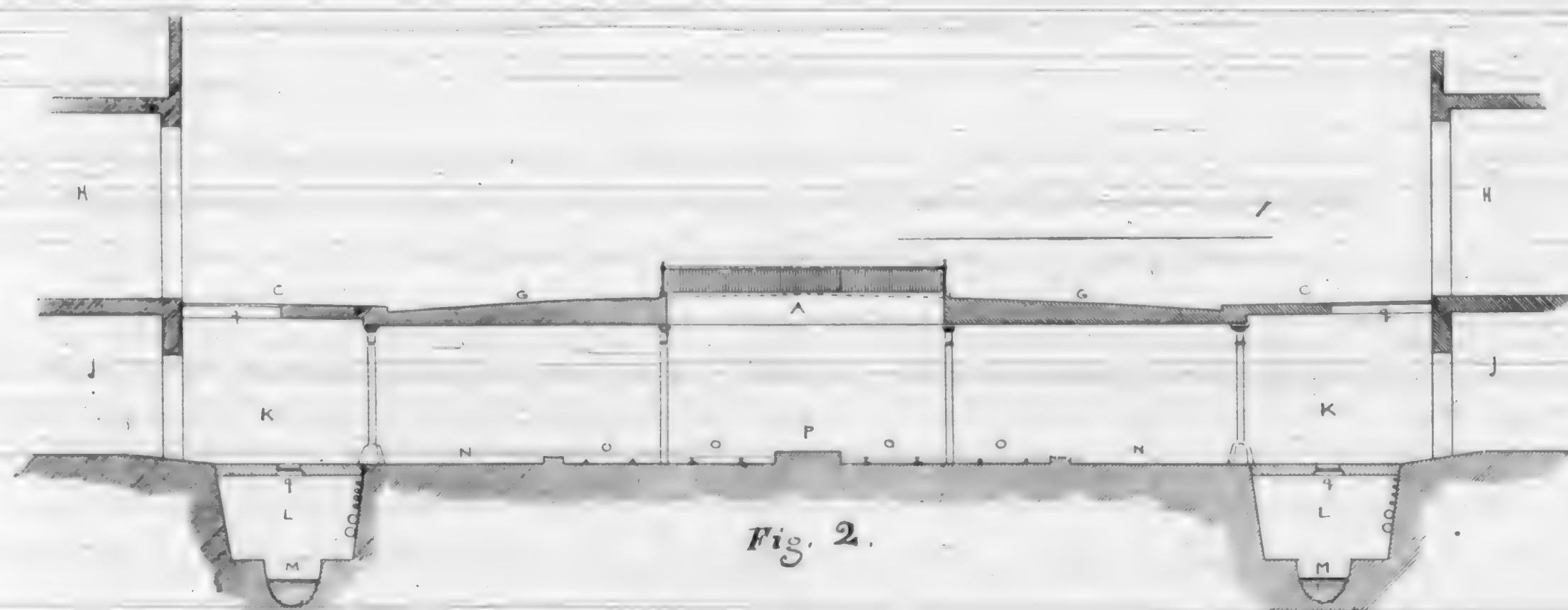
To the Editor of the California Architect:

IN taking my usual strolls abroad, sundry practical difficulties presented to the proper continuity of my perambulations brought the following thoughts into my head which I have grouped under the title of Urban Science:



this letter being confined however, to one part of that Science, viz.: the laying out streets in relation to Sanitariness and to their adaptability for rapid and unobstructed transit and leisurely and safe pedestrianism.

Urban Science I should define as proper conduct of a city, and its chief branch is Sanitary Science, or the Science of Health as applied to Society. Sanitary appliances in matter of detail have reached a high point of perfection, but the



H—Well in center of roadway for light and ventilation to lower regions. C—Side-walks. D—Island for reception of passengers, via, elevator. E—High level street car tracks for residence streets. F—Railing enclosing well. G—Roadway for light vehicles, equestrians, etc. H—2d story of buildings used as showrooms and display. I—1st story used for storage. J—Space for backing up drays and wagons; will be finally needless as freight cars running on a railway will supersede them. K—Sub-way containing gas and water and electric pipes. L—Sewer. M—Tramway for drays or freight cars. N—Motor railroad cars; one set for rapid transit, the other for local travel. O—Platform for passengers and pedestrians. P—Glass Lights.

arrangement of these appliances to the best advantage in dealing with large masses of individuals such as we find in a city is not nearly so perfect.

It is surprising to see an enterprising people as we are, or claim to be, still submitting to have our traffic stopped and all manner of inconveniences put up with by the continual tearing up of our roads and excavating of basements.

It seems to me that the reason of this is that no really good remedy has thus far been offered. It may therefore be in order to lay before your readers a system of streets and basement building which will go far to make away with these troubles.

In the first place, a little reflection will immediately show to one the utter absurdity of digging down into the earth for

our basements when we have the whole space above into which to carry our buildings.

It would be very interesting to investigate the origin of the idea, but we have no time nor space now to enter into this part of the subject; enough it is that the citizen of the latter end of the 19th century persists at a large expense in digging down under the earth to form a dark, damp cellar, often times necessitating constant expense in pumping out the water therefrom while he has the whole space above the earth to build up into. We find him also burrowing into the street and occupying the space under the sidewalks of it. This must arise from what Darwin calls a persistence of the type when our ancestors were moles, as other marks indicate the time when they were pigs.

To remedy this I would propose to make the streets two story and the sidewalks three story.

The lowest story under the sidewalk would contain the sewers, water and gas pipes, electric wires, steam pipes and all the other carrying apparatus for fluids which are now necessary for our life. On the middle or main story, which would be on the same level as the ground, would run under the upper roadway the several motors carrying trains for rapid transit and local passenger traffic and the central space for the pedestrians and for passengers, and on the sides under the walks above would be tramways and railways for trucks and other heavy teaming and for freight cars. All these communicate directly with the basements of the stores on their same level. The top story would be carried on steel

beams and arches. The roadway being used for light traffic and pleasure vehicles, while the stores at this level would be the retail stores and the sidewalks would be used by pedestrians for looking into the same and for perambulating. The sidewalks would be partly of glass, thus giving light to the lower street. Large openings would also be left in the center of the upper street for light and ventilation to the lower one. At the crossing of every block would be public elevators, running continuously and automatically, for carrying the passengers from the street cars to the upper level where they debouch onto the sidewalks.

This is a slight sketch of what could be done to make our streets pleasant, clean and safe.

STROLLER.

OBITUARY.

WHERE died in this city on October first, an honored member of the Architectural profession, and a civil engineer of acknowledged capacity; one who in the forty years practice of his professions in this city and on this coast, won the esteem and friendship of all who appreciate the noble qualities of an honest man.

Prosper L. E. Huerne was born at Pontgouin, near Chartres, France, on the 26th of November, 1820. He was educated as a civil engineer in the government school of Arts et Metiers, at Chalons, and upon graduating entered the service of the French government as *Ingenieur Conducteur* in the *Corps des Ponts et Chaussées*, and was rapidly promoted till he became assistant chief engineer; in this capacity he built the great bridge over the River Loire. It was at this time, during the inundation of the river in 1846, that, at the risk of his own, he saved the lives of many persons, and displayed such bravery and good judgment in the perilous task of rescuing the inhabitants of the inundated country from the swift and treacherous currents of the overflowing river, that the government rewarded his services in the cause of humanity, by presenting him with a medal of honor, of which he was justly proud.

In 1850 he came to this country, landing in San Francisco in June, and till his retirement from business cares two years ago, was an active and enterprising citizen.

As engineer, he built the North Point docks in 1854, and his project for the San Francisco seawall was ranked second among the thirty-three designs submitted in competition. He contracted extensively with the Panama Canal Company for the erection of buildings on the Isthmus, and for dredging several miles of the canal on the Atlantic side, and the energy and skill displayed in the execution of these works, were highly appreciated by the officers of the Canal Company, as a perusal of their letters to him show. He had many correspondents among the members of his profession in Europe, and furnished them with much interesting information concerning the industrial progress of this country, stimulating their interest in the rapid advances made by the newer civilization of the western world.

As architect, he erected the first sugar refinery built in this city by Claus Spreckels, and with a generosity rare in any age, freely donated his services for the erection of the French Hospital in 1857. To mention a fraction of the work designed and executed under his supervision would fill pages.

He acquired skill and experience in mines and mining, and at the day of his death was director in one mining com-

pany that had retained his continuous services for over fifteen years.

He was a member of the San Francisco Chapter of the American Institute of Architects, of the California Academy of Sciences, of the Territorial Pioneers of California, of the Exempt Fire Company, of the French National League and other societies.

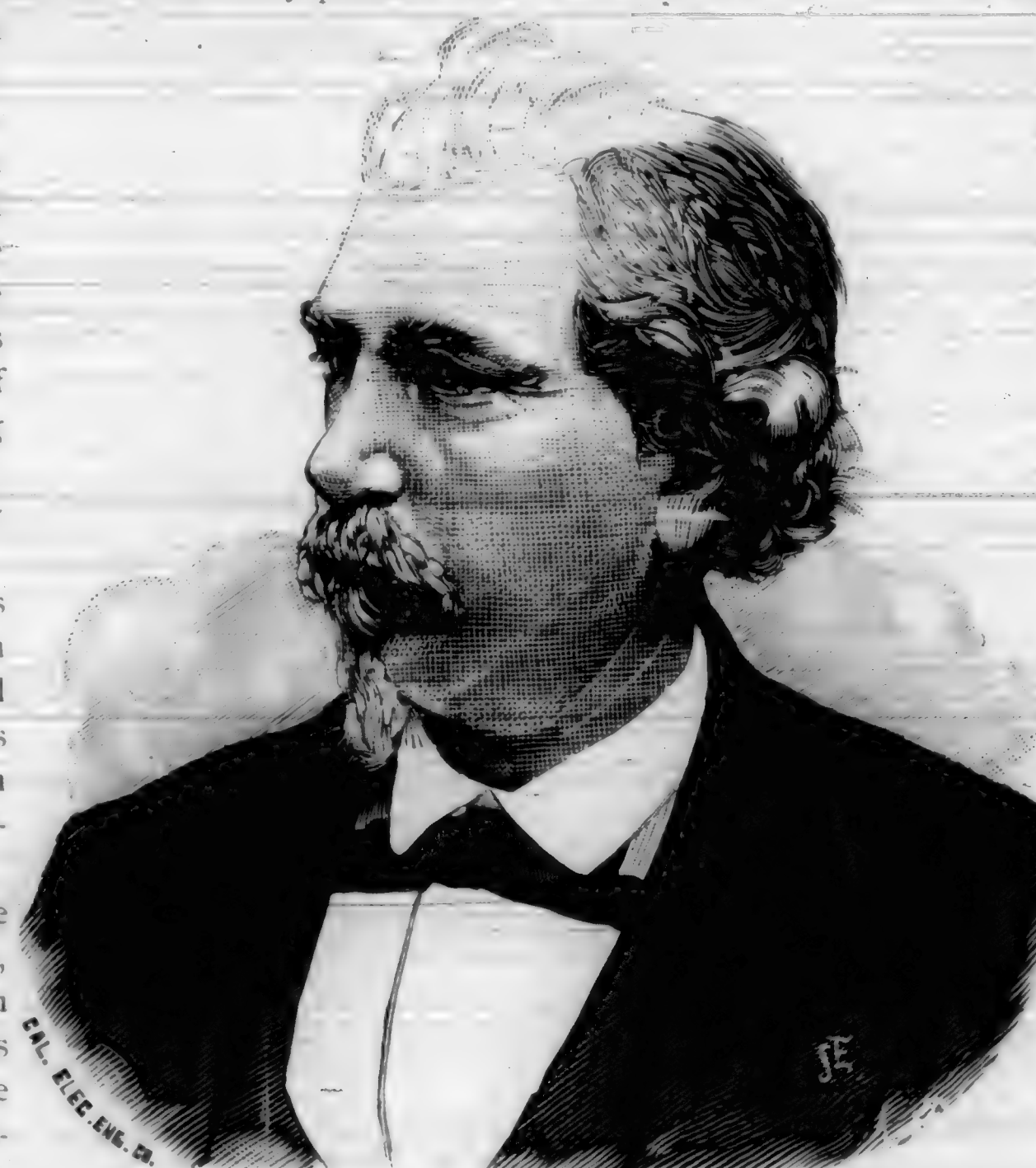
He enjoyed the blessings conferred by the companionship of a devoted wife, who has the sympathy of numerous friends, yet whose grief can only be assuaged by the faith that he is waiting for her on the other shore.

WORLD'S COLUMBIAN EXPOSITION.

DEPARTMENT OF ART.

To the Architects of All Countries.—The World's Congress Auxiliary is an organization maintained by the World's Columbian Exposition, and approved by the Government of the United States, and has for its object the proper presentation, in a series of Congresses, of the moral and intellectual progress of the world, in connection with the World's Columbian Exposition, to be held at Chicago in 1893.

The World's Congress work is organized in appropriate Departments and General Divisions in which Congress are to be held. The Department of Art includes the general divisions Architecture, Painting, Sculpture, Decorative Art, Photographic Art, Illustrative Art and Art-Literature. The undersigned Committee has been appointed to arrange and conduct a Congress of Architects, under the auspices of the World's Congress Auxiliary, as one of the series mentioned. This Congress will probably be held in the month of August, 1893. This Committee will be assisted by an Advisory Council consisting of the Presidents of Architectural Associations



PROSPER L. E. HUERNE.

and other eminent Architects selected from the various countries of the world.

The practical objects of this Congress will be to bring the leading Architects of the world into fraternal relations for mutual acquaintance, and the promotion of their mutual interests; to review the progress of Architecture in different countries, and by a comparison of results attained promote the general advancement of the profession of Architecture throughout the world; and to consider the principles of Architectural Art, and the relations of Architecture to the other Arts, Sciences and Industries.

The themes to be selected from those which may be suggested for presentation in the proposed Congress, will be chosen with a view to the most complete summary of architectural progress to the date of the Congress, and the most clear and comprehensive statement of the practical problems with which Architects are confronted at the present time. Inquiries, suggestions and recommendations, in relation to the proposed Congress, may be addressed to the undersigned Secretary of the Committee.

DANIEL H. BURNHAM, Chairman; WILLIAM LE BARON JENNEY, Vice-Chairman. ROBERT CRAIK MCLEAN, Secretary, 19 Tribune Building, World's Congress Headquarters.

THE GOVERNMENT TIMBER TESTS.

By B. E. FERNOW, CHIEF OF FORESTRY DIVISION,
U. S. DEPARTMENT OF AGRICULTURE.

LABORATORY WORK WRITTEN BY J. B. JOHNSON.

(Continued from page 87.)

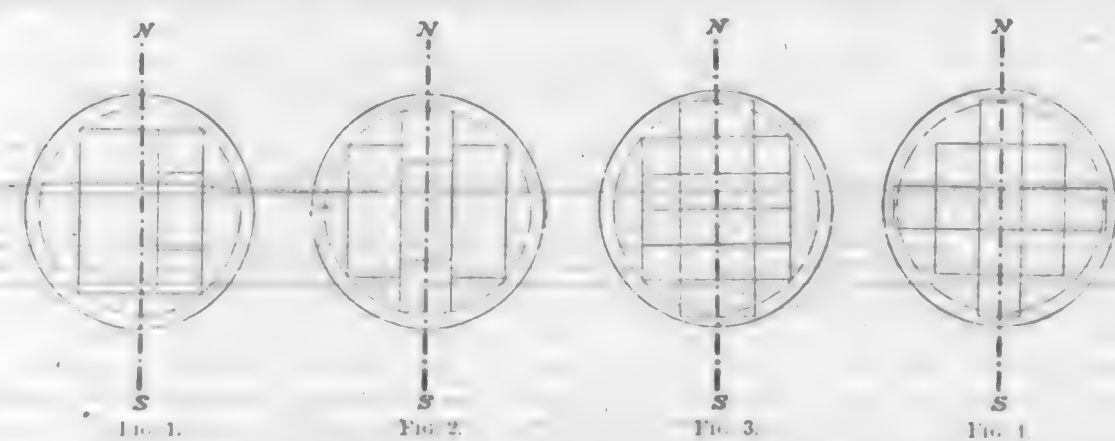
SAWING, STORING AND SEASONING.

ON arrival of the logs in St. Louis they are sent to a saw-mill and cut into sticks, as shown in Figs. 1 to 4.

In all cases the arrangements shown in Figs. 1 and 2 are used, except when a detailed study of the timber in all parts of the cross-section of the log is intended. A few of the most perfect logs of each species are cut up into small sticks, as shown in Figs. 3 and 4. The logs tested for determining the effects of extracting the turpentine from the Southern pitch pines were cut into small sticks.

In all cases a "small stick" is nominally 4 inches square, but when dressed down for testing may be as small as $3\frac{1}{2}$ inches square. The "large sticks" vary from 6 by 12 to 8 by 16 inches in cross-section.

All logs vary from 12 to 18 feet in length. They all have a north and south diametral line, together with the number



The stenciled lines for sawing are adjusted to this north and south line, as shown in the figures.

of the tree and of the log plainly marked on their larger or lower ends.

The stenciled lines for sawing are adjusted to this north and south line, as shown in the figures.

The methods of sawing shown in Figs. 2 and 4 are called "boxing the heart"; that is, all the heart portion is thrown into one small stick, which in practice may be thrown away or put into a lower grade without serious loss. In important bridge, floor, or roof timbers, the heart should always be either excluded or "boxed" in this way, since its presence leads to checking and impairs the strength of the stick.

After sawing, the timbers are stored in the laboratory until they are tested. The "green tests" are made usually within two months after sawing, while the "dry tests" are made at various subsequent times. One end (60 inches) of each stick is tested green, and the other end reserved and tested after seasoning. The seasoning is hastened in some cases by means of a drying box. The temperature of the inflowing air in this drying box is kept at about 100° F., with suitable precaution against checking of the wood, and the air is exhausted by means of a fan. The air is, therefore, somewhat rarefied in the box. The temperature is at all times under control. It operates when the fan is running, and this is only during working hours.

The apparatus pertinent to the timber tests consists of a 1,000,000-pound column-testing machine; one 100,000-pound beam-testing machine; one 100,000-pound universal testing machine, of Riehle's "Harvard" pattern; one small portable beam machine, one 6-horse power Brayton coal-oil engine, one 4-horse power steam engine, one planer and one lathe, for iron work; one planer, one band saw and one cutting-off saw, for shaping and dressing wood specimens; suitable scales, drying ovens, etc., for the moisture and specific gravity tests; the drying box with its steam coils and ex-

haust fan, and all the necessary appliances, benches, tools, desks, etc., including a Thatcher's slide rule for making the computations.

THE CROSS-BREAKING TESTS.

LARGE BEAMS.—The large beams are tested on the large beam-testing machine. The base of this machine consists of two long-leaf pine sticks (*Pinus palustris*), 6 inches by 18 inches by 24 feet long, with a steel plate three-fourths of an inch by 18 inches by 20 feet long, all bolted up as one beam. The power is applied by hydraulic pressure upon a plunger below, to the crosshead of which are attached the two side screws, on which the upper crosshead is moved by sleeve nuts and spur gearing. The beam to be tested rests on pivots at the ends, placed on top of the base beam, and the upper crosshead is moved down by means of the gearing until the central pivot attached to it comes in contact with the beam, or rather with the distribution blocks placed on the beam at this point. The test then begins, the power originating in a double-plunger pump, operated by hand or by steam power in another part of the room.

To prevent the pivots or "knife-edges" from crushing into the timber, it is necessary to make the contact at both ends and center, first upon a cast-iron plate, then through longer wooden blocks to the timber. The center block is curved somewhat on the lower side, to allow for a considerable deflection in the beam when nearing its maximum load.

In the tests of all beams, both large and small, the load is put on at the same uniform rate, so as to eliminate the time effect, which is very great in timber tests. The load on the small beams is increased at such a rate as to produce an increase in the deflection of one-eighth inch per minute without any pause until rupture occurs. This causes rupture in from ten to fifteen minutes time. The load is read off when it reaches certain even amounts, and an observer notes the corresponding deflection without stopping the test. The time required for the large beam tests is about the same, the deflection rate being greater when the total deflection is expected to be greater, as is the case with 4 by 8 inch sticks 12 feet long. The deflection of the large beams are observed upon a paper scale, graduated to inches and tenths, glued to a piece of mirror, which is tacked to one side of the stick at the center. A fine thread is stretched, by means of a rubber band, over nails driven into the side of the stick above the end supports on the line of the neutral axis. This string or thread is moved about an inch away from the surface of the timber, and all parallax, or error of reading from an oblique position of the eye, is avoided by keeping the eye where the thread and its image in the mirror coincide and form one and the same line. The readings are taken to inches and hundredths by estimating the tenths of the graduation spaces on the scale.

The loads are weighed on the large universal testing machine in another part of the room. This is done by having both machines connected up to the same pump, blocking the weighing machine so that the load on its plunger is transmitted to the scales and weighing beam, and then pumping into both machines. The plungers are of exactly the same diameter; they have similar leather cup packing, and hence the error of this method is simply the difference in the friction of the two plungers in their packing rings. To test the accuracy of this method, and to determine the error, if any, at any time, a nest of calibrating springs was made and tested first on the Emery machine at the United States Arsenal, at Watertown, Mass. The loads were found which corresponded to given deflections, or in other words the stress diagram of these springs up to a 30,000-pound load, which corresponds to a little more than one inch elastic deflection. By repeating this test on the 100,000-pound universal or weighing machine, and then on the large beam machine, and plotting the stress diagrams obtained from each, not only can these machines be compared with each other, but both can be compared or calibrated with the Emery machine at the Watertown Arsenal.

SMALL BEAMS.—The small beams which are nominally 4 inches square and 60 inches long between supports are tested on the small beam-testing machine. This machine

was designed originally for testing cast-iron beams, the load at one end or one-half the load at the center being weighed on a pair of ordinary platform scales. The deflections are read off to thousandths of an inch upon a micrometer screw held in the top iron crossbeam. By this means a rigid connection is obtained, through parts not under stress, from the end supports to the center bearings. The movement of the center with reference to the ends is therefore obtained, regardless of the absolute movements of the parts. The load is put on by the hand wheel and power screw, and the weighing beam kept in balance by putting on overweights and moving the poise. Three men are required to make this test. One moves the power screw, which has one-fourth inch pitch, so as to make one revolution every two minutes, and he continues this uniform motion till rupture occurs. Another keeps the scales balanced and calls off the even hundreds of pounds. Another keeps the micrometer screw in contact with the head of the power screw, reads it for certain even hundred pound loads called off, and records the time of each such reading to the nearest minute, the load, and the corresponding reading of the micrometer screw. Here also the end and center bearings are protected by iron plates large enough to prevent any appreciable distortion from lateral compression.

After rupture occurs the stick is bored for samples from which to obtain the moisture tests, and the uninjured ends sawed off and used for the remaining tests, as described below.

THE MOISTURE TEST.

The borings are taken from two holes, 20 inches from each end, and at about one-third the width of the stick, from either side. These borings are first weighed on a delicate balance then placed in a drying oven, at a temperature of 212° F. until they have reached a nearly constant weight, when they are reweighed. The dry weight is taken as the basis on which to compute the percentage of moisture. Thus, if the original weight is twice the final weight, then there was as much water as woody fiber in the stick, or one-half or 50 per cent of the original weight was water. But when computed on the basis of the dry weight there would be 100 per cent. of water. The advantage of computing the percentage on the dry weight is that it furnishes a constant basis of comparison, whereas if computed on the actual or wet weight the basis on which the percentage would be computed would vary with every change in the amount of moisture.

THE SPECIFIC GRAVITY.

The specific gravity is found by taking one of the end pieces, usually 4 by 4 by 8 inches, measuring carefully its lateral dimensions by calipering them at the middle points of the sides at the central section, measuring the length in a similar manner, and taking the product of these three dimensions as the volume. From the total volume and the actual total weight, the weight per unit volume or per cubic foot is found, and from this the specific gravity, which is the weight per cubic foot divided by the weight of a cubic foot of distilled water. It must be understood that all the small (4 by 4 inch) beams are planed up true and rectangular before testing and that all the crosscuts are made by a power saw so adjusted as to cut truly at right angles to the sides. The volume can therefore be very accurately computed from the dimensions as above described.

THE TENSION TEST.

The tension test piece is cut from one end of the broken beam. It is 16 inches long, $2\frac{1}{2}$ inches wide, and $1\frac{1}{2}$ inches thick. Its thickness at the center is reduced by cutting out with a band saw circular segments, leaving a breaking section of some $2\frac{1}{2}$ inches by three-eighths inch. This specimen is then placed between the plane wedge-shaped steel grips, and pulled, the same as a bar of iron, in the Universal Machine. This simple method has been found very satisfactory in practice. For this test care is taken to cut the specimen as nearly parallel to the grain of the wood as possible, so that its failure will occur in a condition of pure tension.

THE ENDWISE COMPRESSION TEST.

Most of these tests are made on sticks 4 inches square by 8 inches long, the ends having been cut perfectly true and

at right angles to the sides. They are tested in the Universal Machine, the compression continuing until the stick has been visibly crushed and has passed its maximum load. The crushing usually manifests itself over a plane section, by crushing down, or bending over all the fibers at this section, which may be either a right or an oblique section. The section of failure, however, is seldom at the very end. The slightest source of weakness may determine its position, as a very small knot for example, for knots are a source of weakness in compression as well as in tension.

Some tests are made on columns 40 inches long by 4 inches square on the large beam machine, but these usually fail the same as the short blocks, and not by bending sidewise.

COMPRESSION ACROSS THE GRAIN.

Specimens 4 inches square and 6 inches long are tested in compression across the grain. An arbitrary limit of distortion, namely 3 per cent of the height, has been chosen as a reasonable maximum allowable distortion in practice. This limit is indicated in the test by the ringing of an electric bell, and the load then on the specimen is called the compressive strength across the grain. The same limit has also been found to be very near the maximum load in lateral compression, which is also determined.

THE SHEARING TESTS.

Since timber fails by shearing, or splitting, oftener than any other way this test becomes a very important one. The specimen is taken 2 inches square and eight inches long, and rectangular holes mortised 1 inch from each end, and at right angles to each other. The specimen is then pulled, in the Universal Machine, by means of suitable stirrups and keys. The ends are kept from spreading or splitting by putting on small clamps with just enough initial stress in them to hold them in place. After one end shears out two auxiliary hoops or stirrups are used to connect the key which sheared out to a pin put through the hole at the center of the specimen as shown. The other end is then sheared, and two results are obtained on planes at right angles to each other. In this way the shearing strength is determined on two planes at right angles to each other.

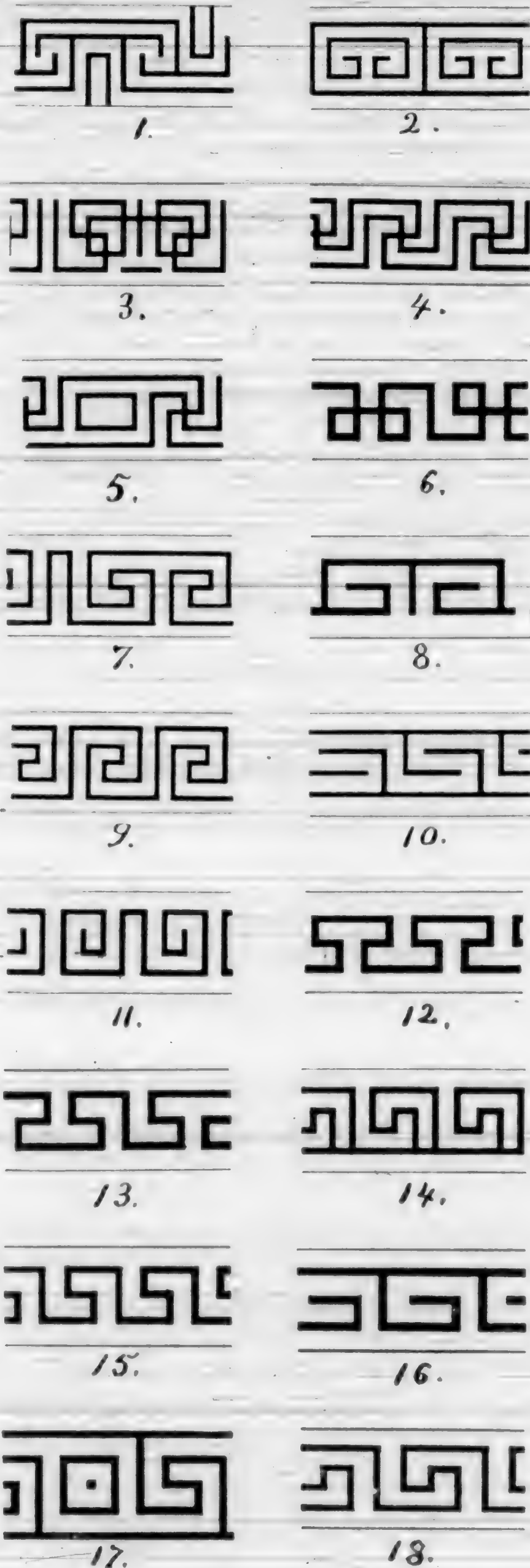
TESTS OF FULL-SIZED COLUMNS.

No set of experimental tests of timber would be complete without numerous tests on full-sized columns. This requires a machine of not less than 1,000,000 pounds capacity, capable of crushing to failure columns from 11 to 14 inches square and at least 30 feet long. Such a machine has been built expressly for this work. It is capable of exerting a compressive force of 1,000,000 pounds on a length of 36 feet or less. The sides or tension members of this machine are made of four long-leaf yellow pine sticks (*Pinus palustris*), from Georgia, each 8 by 12 inches and 45 feet long. The power is applied by the same hydraulic pump which operates both the large beam machine and the 100,000-pound universal machine. The loads are weighed on this latter machine the same as for the beam tests. The plunger in the column machine has just ten times the area of that in the weighing machine, and hence the loads in the column tests are just ten times those indicated on the weighing beam, with a slight correction for the friction differential, which has not yet been determined. The tail block is of cast-iron, resting in a spherical socket, which is carried on a car, and which can be held by struts resting in slots in the timber. The outer ends of these struts are kept from spreading by means of tiebars, and the whole combination can be moved forward or back so as to make the distance between face plates any even number of feet from two to thirty-six. The spherical socket in the tail block will produce an accurate adjustment of the end bearings at the beginning of the test, but after the load is on it is thought that this joint will remain rigid, the same as a solid block, especially if precautions are taken to increase the frictional resistance between these bearing surfaces. This spherical socket is provided to eliminate the effects of unequal shrinkage in the side timbers, or any unequal compression in the bearing sockets, and not to serve as a round-end bearing for the column. When long columns are tested a part of their weight will be supported by means of lines and pulleys, so as to make the test correspond to a vertical load in actual practice.

(To be Continued.)

FRETS have been used as ornament from the earliest period of Architectural history. Their origin appears to have been the reed or bamboo set in broken lines.

The examples shown by the cuts, from 1 to 18, partake of the Grecian character, and figures 6, 8, 10 and 12 may be found in Chinese and Japanese design. In future numbers of this Journal we shall show other examples of frets as illustrated in the architecture of various countries.



TWENTY-THREE BREAKS IN ONE NIGHT.—In one night recently, twenty-three new cracks and fissures were noted in the Chicago government building. The old shell will some day take a tumble and then perhaps the government will see wherein its present policy is what might be politely called foolish. —*Chicago Saturday Blade.*



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

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

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

THE double page illustration shows the celebrated wine cellars of Mr. W. B. Bourn, near St. Helena, at the upper end of the Napa Valley. The building and accessories are of stone from that vicinity, and the cellars have been arranged and constructed with all the improvements pertaining to the making, maturing and storing of wines. The product of this vineyard has already become famous and, with the increased facilities, the output will more fully supply the demand.

Messrs. Percy & Hamilton of San Francisco are the Architects.

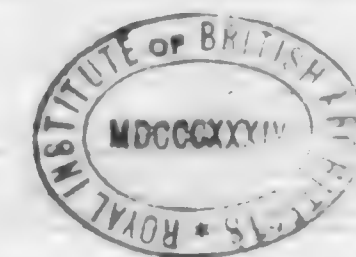
THE Wallace is in course of erection on Sutter street near Jones street in this city. The basement and main story are of buff colored bricks, and the upper three stories are of wood. The building is arranged for a rooming and boarding house and contains one hundred and fifteen rooms.

Mr. R. H. White is the Architect.

THE design for a Casino is taken from the Architectural Illustrations of the "Intime Club" of 1874. This design was submitted in competition by Mr. Claris, Architect, of Paris.

In the basement, are arranged the kitchen, service and attendants' rooms. The main story contains the vestibule, grand saloon and private dining halls, and in the upper story are the family dining rooms.

IN future numbers of the CALIFORNIA ARCHITECT we intend to make some improvements and introduce matters of especial interest to those residing in localities where the facilities for obtaining the requisite finish and ornaments are not easily obtained, and thus assist in the development of a love for healthy and convenient homes. When visiting the rural districts we have been requested to give a series of details for work that could be worked by any ordinary carpenter without the aid of machinery. In this particular line we shall give examples for such work, based upon the experience of those who have passed through this ordeal in years already past.

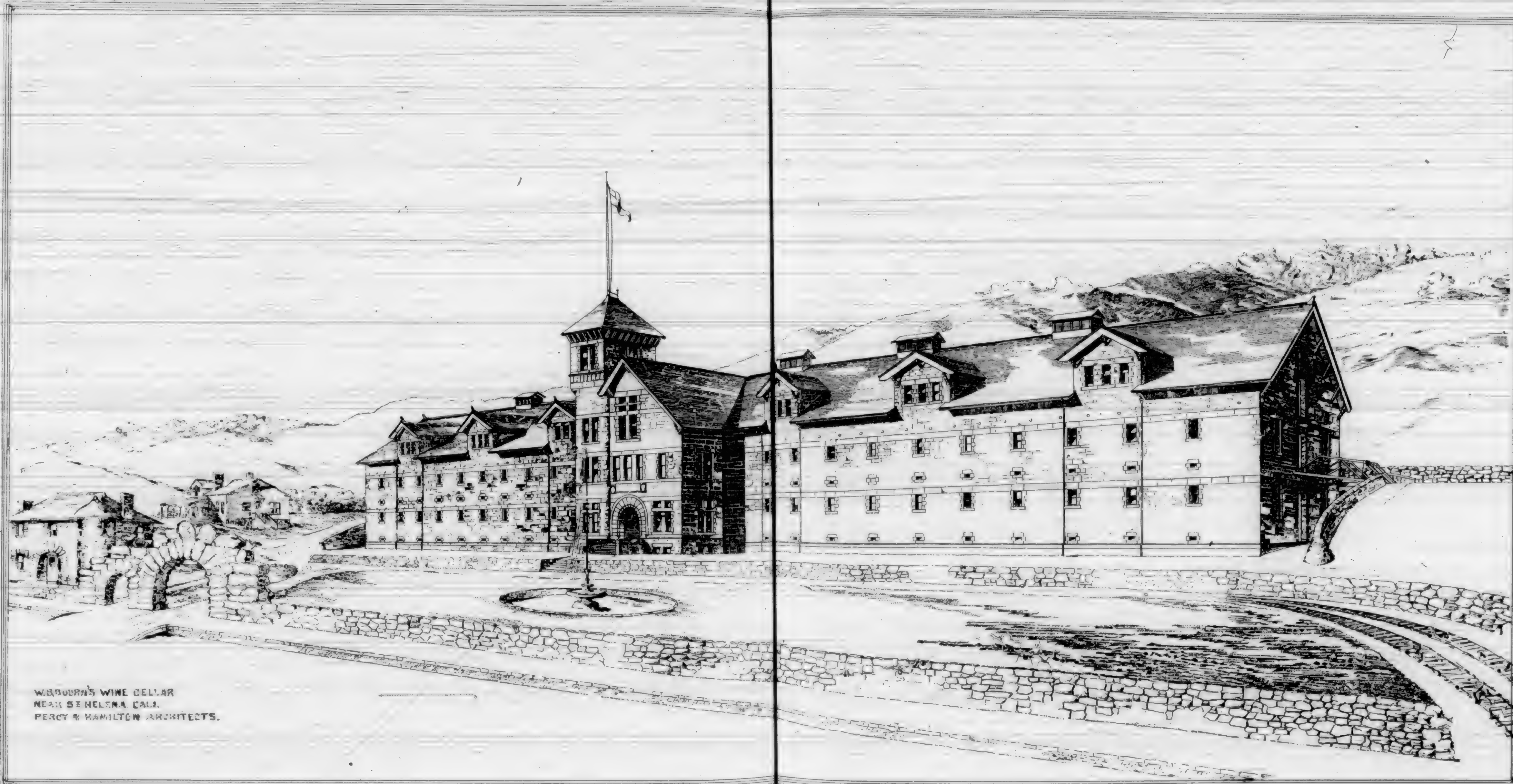




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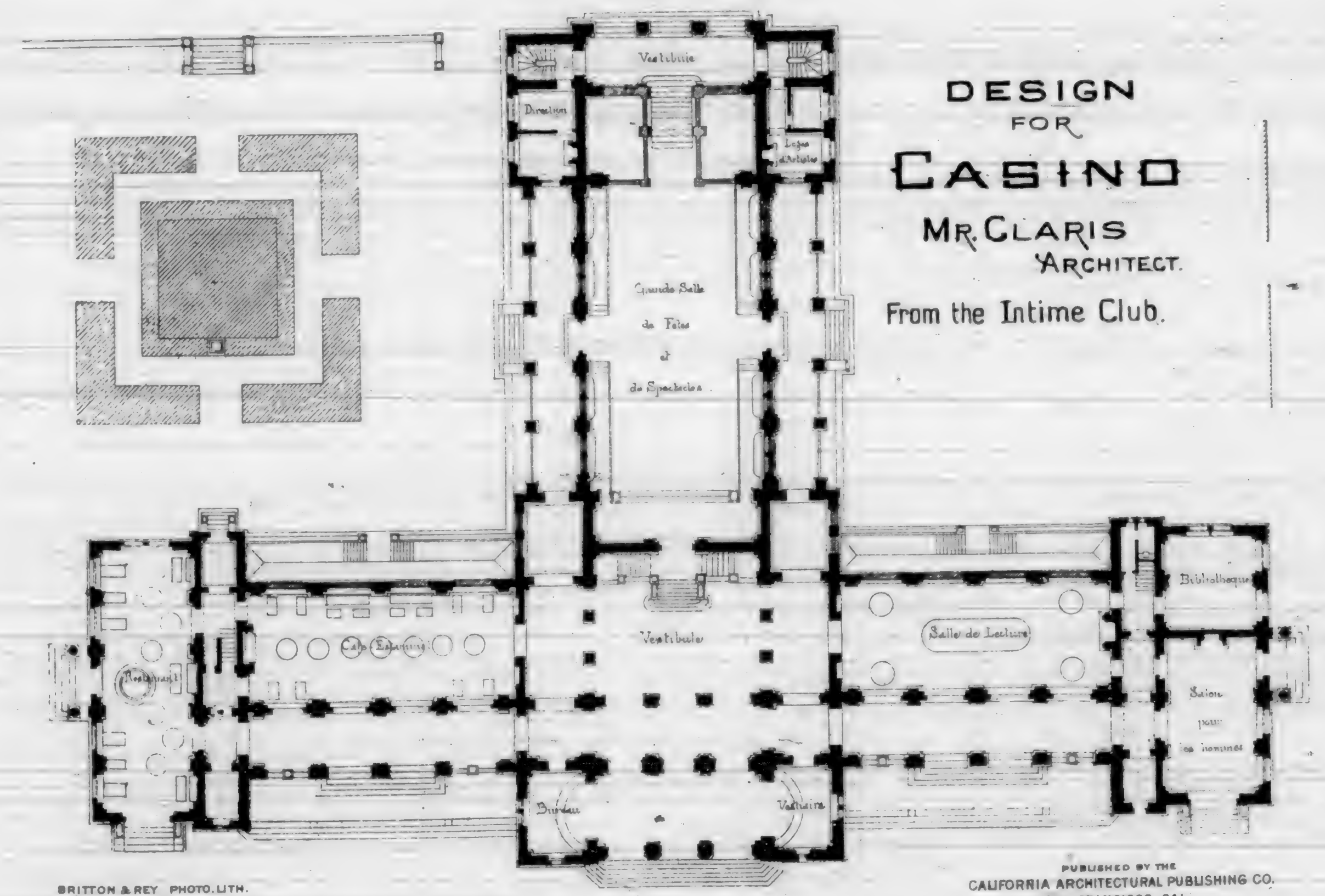
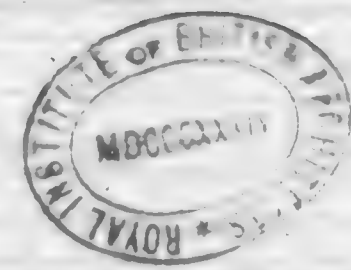
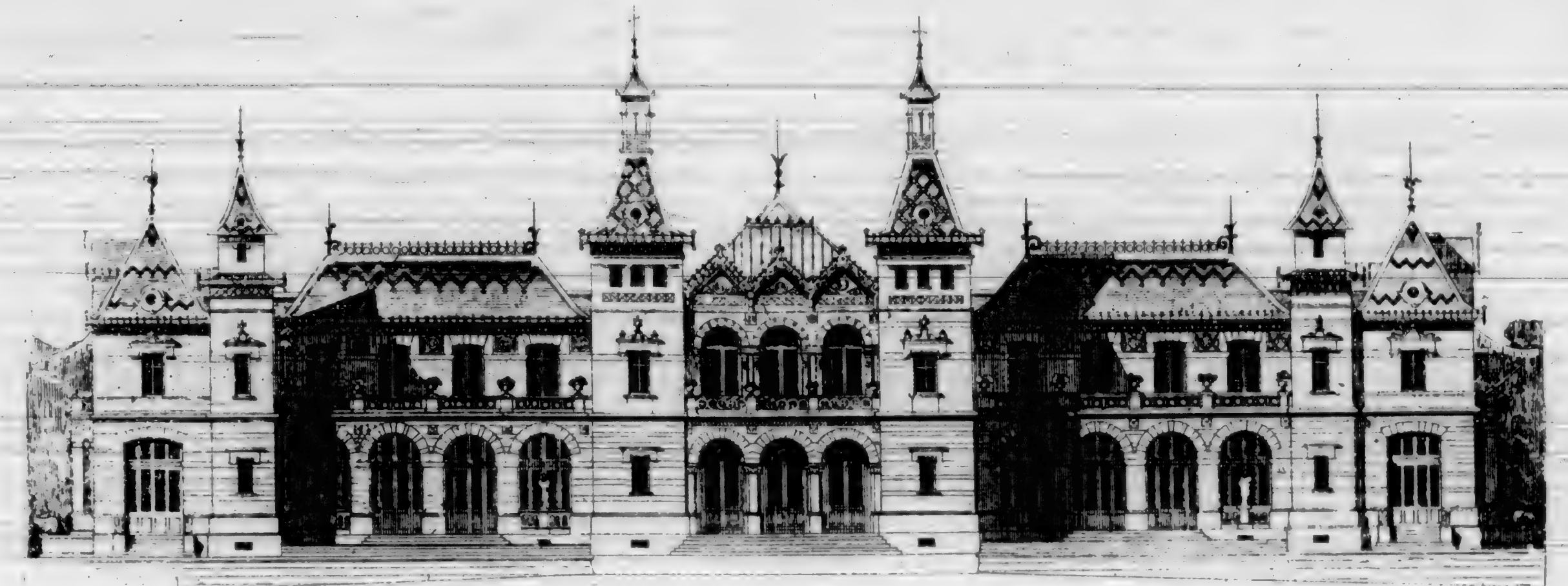




WEBB'S WINE CELLAR
NEAR SEHELENA CAL.
PERCY & HAMILTON ARCHITECTS.

BRITTON & REY PHOTO LITH.

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Advices from Chicago are to the effect that the California Building is about one-third completed. An extra number of men has recently been added to the construction force.

The *Yolo Democrat* says:—The work of laying the sewer pipe of the sewer system of Woodland has been completed. The flush tanks will be placed in position immediately. About seven miles of pipe have been laid since July 6th, and will soon be given a final test.

From the *Sacramento Union* we learn that the people of Sacramento have decided to expend \$100,000 for improving the levees, and to place their city beyond all fear of trouble from freshets. At the present time Sacramento is very prosperous and is likely to remain so if assured of safety from the troubles of the past years.

THE AIR LINE SURVEYORS.—The surveyors for the Salt Lake and San Francisco Air Line railroad are making rapid progress toward the east. After coming up the Feather river they passed through Long Valley to Purdy's switch and then went to the north of Reno about twenty miles, passing between Pyramid City and Pyramid Lake. They will cross the Truckee a few miles below Wadsworth and thence to the southeast through Churchill county.—*Reno Gazette and Stockman*.

Blank applications for space in the Mechanics' Pavilion at San Francisco for the Preliminary World's Fair Exhibit to be held next January, have just been issued, as has also the full premium list. Detailed information can be had on application to the Secretary of the Mechanics' Institute, J. H. Culver, at 31 Post street, or to C. B. Turrill, General Agent, 63 Flood Building, San Francisco. Intending World's Fair exhibitors by displaying their products at this Preliminary Exhibit will in many cases receive enough cash premiums to recompense them for their entire labor and outlay.

California is to be honored by having a section of one of her famous big trees made a prominent feature in the Government building at the World's Columbian Exposition at Chicago. The project, the accomplishment of which is fully assured, is a unique one. The section of the tree will be twenty-three feet in diameter and thirty feet long. This will be divided into three parts and these will be placed in their natural position, one above the other, and so arranged as to form something like a two-story house. The contract for the tree was made by H. A. Taylor of the Department of the Interior with the King's River Lumber Company in the spring of this year, and the company is now at work getting

it out in their forest of sequoia gigantea in the Converse basin on King's river in Fresno county.

The tree selected is one known as the "General Noble." It measures thirty-three feet in diameter near the ground, but as the object was to have the section of the same diameter at both ends, as nearly as possible, a piece is being taken out of the tree at some distance from the ground. To do this and to preserve the section from harm by falling as well as to meet other requirements has proved to be a work of considerable magnitude. The idea is not to send a solid section, but, rather, the rim of the tree hollowed out and cut into segments of suitable size, and all to be numbered so that they can be erected at Chicago, so as to look from the exterior like a solid section of a sequoia thirty feet in height. The three parts into which the section is being cut consist of two parts of fourteen feet each, to be hollowed out, and one, two feet thick, which will serve as a floor between the two stories, as it were.

To get the tree to a point where wagons can reach it required the building of a road two miles long. The tree when erected at Chicago will be surrounded by a glass dome, and will stand directly under the great dome of the Government building.

MYTHOLOGY.

PALLADIUM, a celebrated statue of Pallas. It was about three cubits high, and represented the goddess as sitting and holding a pike in her right hand, and in her left a distaff and a spindle. It fell down from heaven near the tent of Ilus, as that prince was building the citadel of Ilium. Some nevertheless suppose that it fell at Pessinus in Phrygia, or according to others, Dardanus received it as a present from his mother Electra. There are some authors who maintain that the Palladium was made with the bones of Pelops by Abaris; but Apollodorus seems to say, that it was no more than a piece of clock-work, which moved of itself. However discordant the opinions of ancient authors be about this famous statue, it is universally agreed, that on its preservation depended the safety of Troy. This fatality was well known to the Greeks during the Trojan war, and therefore Ulysses and Diomedes were commissioned to steal it away. They effected their purpose; and if we rely upon the authority of some authors, they were directed how to carry it away by Helenus the son of Priam, who proved, in this, unfaithful to his country, because his brother Deiphobus, at the death of Paris, had married Helen, of whom he was enamoured. Minerva was displeased with the violence which was offered to her statue, and according to Virgil, the Palladium itself appeared to have received life and motion, and by the flashes which started from its eyes, and its sudden springs from the earth, it seemed to shew the resentment of the goddess. The true Palladium, as some authors observe, was not carried away from Troy by the Greeks, but only one of the statues of similar size and shape, which were placed near it, to deceive whatever sacrilegious persons attempted to steal it. The Palladium, therefore, as they say, was conveyed safe from Troy to Italy by Æneas, and it was afterwards preserved by the Romans with the greatest secrecy and veneration, in the temple of Vesta, a circumstance which none but the vestal virgins knew.





The FORTNIGHTLY REVIEW for September, has the usual number of original articles.

The COSMOPOLITAN for October, has an article on "Munich as an Art Center," by Charles DeKay.

LIPPINCOTT'S for October, has an article by Edwin Checkley on "Muscle Building," wherein he treats of the "Normal" man or woman as a model.

ENGLISH CATHEDRALS is the title of a new twenty-five dollar work by Mrs. Schuyler Van Rensselaer, illustrated by Joseph Pennell and published by the Century Co., New York.

FIRE AND WATER for September, came out as an elegant "Souvenir Number."

THE BRICKBUILDER for July, gives a number of designs for ornamental brickwork. It is published monthly by the Brickbuilder Publishing Co., 4 Liberty Square, Boston.

The AMERICAN ARCHITECT is publishing a series of valuable papers on Architecture.

NOTICE OF MEETINGS.

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

Geo. H. SANDERS, Pres. OLIVER EVERETT, Vice-Pres.
H. T. BESTOR, Sec. JOHN M. CURTIS, Tres.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at Academy of Sciences Building.

JOHN RICHARDS, Pres. L. WAGONER, 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.
W. I. CROSETT, Sec. O. BROOKS, Treas.

MASTER PAINTERS' ASSOCIATION OF THE PACIFIC COAST.

E. M. GALLAGHER, Pres. H. G. JARMAN, Sec.

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.

PERFORMANCE OF CONTRACT PREVENTED.—Where a person contracts with another to do work and furnish materials, and the latter prevents his completing the work though the contract was entire, he may recover the value of the labor done and materials furnished and used.
Joyce v. White, Supreme Court of California, 30 Pac. Rep. 524, 42.

FAILURE TO RECORD BUILDING CONTRACT.—Where a written contract for furnishing materials and erecting buildings is void for failure to record it, as required by the California Code, the party furnishing such materials and erecting such buildings may maintain an action on an implied contract for the value thereof; the Code providing that nothing in the foregoing statute shall be construed to impair or affect the right of any person to whom any debt may be due for work done or materials furnished, to maintain a personal action to recover such debt against the person liable therefor. Such unrecorded contract is not conclusive evidence of the value of the labor and material.
Rebman v. San Gabriel Val. Land and Water Co., Supreme Court of California, 30 Pac. Rep. 564, 112.

NOTICE OF LIEN FOR MATERIAL USED IN SEVERAL HOUSES.—Where several houses are erected by the same contractor for the same owner, and the materials used in the construction are so used indiscriminately, a notice for mechanic's lien for materials furnished is not defective because it does not specify for which particular house the materials were furnished.
Wheeler v. Ralph, Supreme Court of Washington, 30 Pac. Rep. 709, 57.

WHEN SUBCONTRACTOR'S LIEN ATTACHES.—Where a building is constructed under one entire contract between the owner and the original contractor, the liens of all subcontractors, who furnished material or performed labor for the building at any time during the process of construction, attach by relation, as of the date of the commencement of the work, and are entitled to a preference over a mortgage on the premises, executed by the owner subsequent to that date.
Glass v. Freeberg, Supreme Court of Minnesota, 62 N. W. Rep. 900, 74.

ACTION AGAINST SURETIES ON CONTRACTOR'S BOND.—A landowner entering into a contract with a contractor for the erection of a building by the latter took a bond from the contractor, with sureties, conditioned that it should be void if the contractor should pay all just claims for work and material furnished. The contractor having abandoned the contract, the owner himself completed the building, and sued on the bond to recover for the expenditure made by him in so doing. But the sureties were not liable, the breach assigned not being the same as that for which they became responsible.
Holcombe v. Mattson, Supreme Court of Minnesota, 52 N. W. Rep. 857, 99.

ONE CONTRACTOR KEEPING ANOTHER'S CHECK.—In an action for the conversion of a check drawn by the owner of a building to one contractor, and by him indorsed payable to the order of another contractor, it appeared that the check was intended for the latter contractor for the frame work of the building. The former contractor for excavating the cellars, etc., refused to deliver the check, on the ground that he was kept out of money due him by the latter's failure to put in a tier of beams. There was evidence that the beams were not put in because the first mentioned contractor had not carried up the walls high enough. Under the circumstances judgment was given to the contractor for the framework against the other contractor.
Haas v. Altieri, City Court of New York, 19 N. Y. Sup. 687, 127.

POSSESSION DOES NOT AUTHORIZE BUILDING AND LIEN.—The mere fact that one is in lawful possession and control of land does not give one authority to contract for the construction of buildings thereon, so as to give the contractor a lien. Thus it does not follow because one is a trustee or agent to hold and control property that he is authorized to bind the owner by contract which may become liens upon it. Such power must be expressed, or must be shown to arise within the scope of the agency. An overseer, for instance, is an agent to control a plantation, but he could not bind the real estate by contract, or even the crops, without more authority than arises from his agency.
Miller Hardwood Lumber Co. v. Wilson, Supreme Court of Arkansas, 19 S. W. Rep. 125, 974.

LIENS ON BUILDINGS ERECTED BY ADJACENT LAND OWNERS.—Where the several owners of two contiguous lots unite in a joint contract for the construction of one building, to be situated in part on each, both lots may, for the purpose of mechanics' liens, be treated as one tract, and a single claim for a lien for labor or material performed or furnished, for the construction of the building may be filed against both lots. But the lien claimant may, nevertheless, in enforcing his lien, cover his claim and obtain judgment against each lot separately, provided he proves what part or proportion of such labor or material entered into the construction of the part of the building situated on each, and provided the rights of third parties are not thereby prejudiced.
Miller v. Shepard, Supreme Court of Minnesota, 52 N. W. Rep. 804, 130.

MORTGAGE BY PARTNER.—A mortgage on real estate executed by one only of two partners in the presence of the other, and with his consent, as security for a firm debt, is binding upon the firm.
Greer v. Ferguson, Supreme Court of Arkansas, 19 S. W. Rep. 906, 36.

PREMATURE FILING OF MECHANIC'S LIEN A LIBEL.—Under the Virginia Code providing that a subcontractor shall not be entitled to a lien on the work in hand until its completion, a subcontractor who prematurely files a mechanic's lien on the work in hand is liable in an action for libel for the injury occasioned thereby to the contractor. It is a settled rule of this common law, that every publication of language that naturally and necessarily tends to injure another in his office, trade, or employment, is, if without justification, libelous and actionable in itself. Where, however, the language does not import such defamation as will of course be injurious, and is therefore actionable only because it occasions special damage, that is, damage which, though natural and immediate, is yet not the necessary result of the language used, then the damage done must be proved. So the filing of a mechanic's lien by a subcontractor as above for an alleged indebtedness to him by the general contractor, cannot be taken, as a matter of law, as imputing insolvency or dishonesty to the general contractor, nor as necessarily tending to injure him in his business. The resulting damage must be proved.
Moore v. Rolin, Supreme Court of Appeals of Virginia, 15 S. E. Rep. 520, 207.

BUSINESS MOSAICS.

The J. L. Mott Iron Works show this month the design of one of their vases which may be used for decorative purposes. Their mammoth catalogue of vases contains a great number of beautiful ornaments for the embellishment of buildings and grounds.

Another man hung his sash with the Samson Solid-Braided Sash Cord, and from that time on the windows have caused no trouble. These cords are very strong and so pliable that the sash moves with an ease and quietness unknown when other cords are used. See advertisement on last page of cover.

When your white paint begins to chalk off, get soft, turn yellow and loose color or body, try the Phoenix White Lead.

This paint is compounded on correct scientific principals, and its ingredients are combined in such a manner as to withstand to the greatest degree all the destructive influences found on the Pacific Coast.

The salt fogs from the ocean and the moist haze from the overflowed and tide lands have been found to cause the rapid deterioration of paint as usually prepared, while the Phoenix White Lead, when applied in time, has saved the paint already on and added materially to its life. Phoenix White Lead Paint lasts about twice as long as commonly prepared paint. For further information call at the Phoenix White Lead and Color Works, 713 Sansome St., San Francisco.

The balance of power that will insure peace and comfort to all who dwell in houses. A great deal depends upon the condition of the windows of all buildings for health and comfort. Windows that will not open without the aid of carpenter's tools, or that fly open with a bang and cannot be closed, are among the trivial nuisances that exasperate human nature. To have sash balances constructed on a wrong principle and with cheap cord, which easily breaks, attached to your windows, is to court continual trouble. There are many who are not aware that the Pullman Balance Co. have invented a device that has solved the sash balance problem, and for some time past it has been adopted by the most notable architects in America for the grandest buildings ever erected upon this continent.

There is one essential thing necessary on the part of those who wish to use this sash balance and that is common

sense. The device is known as the Pullman Sash Balance, and is graded into no less than forty-one classes, suitable to the weights of as many sashes, and a man has only to ascertain the weight of his sash in order to procure a balance that is guaranteed to last fifteen years without a single hitch or break. But if a man buys a Pullman Spring Sash Balance suitable for a sash weighing from 4 to 5 lbs. and applies it to a sash weighing about 20 lbs. it will not work, for very good reasons. Sometimes men have done this, and laid all the blame on the device, whereas it all lays upon their own want of common sense. One of the main features in the new invention is the metal tape which replaces the old-fashioned cord, which always broke sooner or later. This metal tape is made of that new, costly and wonderful alloy known as Aluminium bronze which forms a tape that it is almost impossible to break, even by continued hammering when it is doubled up and repeatedly reversed. The new device comprises all the improvements which experience has gleaned in the past, and its simplicity of operation and durability of construction is a marvel of mechanical ingenuity. The frame and face plates are made of cold rolled steel and by locating the brake inside the drum or case, it becomes automatic in operation and applies itself automatically and in proportion to the tension of the spring and there are no screws or bolts to adjust. The face plates being made with oval ends can be fitted with a common auger bit and only require two screws which is a great advantage over the old-fashioned square face plates. The balance is adapted for old as well as new work and can be used in many places where weights and cord cannot. They are easily applied, run noiselessly and have a very attractive appearance. But what is most important next to its durability is the fact that it costs less than any other balance. No slipshod work passes out of the factory. Every article is subjected to severe tests and all material that will not stand the severest ordeals as to quality is rejected. Every balance manufactured by the company is fit for a sample.

A complete line of gas burning appliances, such as cooking ranges, close or open heaters, laundry boilers and driers, etc., are on exhibition at the sale rooms of the San Francisco Gas Light Co., No. 16 Post street, S. F.

The American Roofing Plates furnished by Merchant & Co., Philadelphia, seem to have displaced all other brands of tin roofing.

Art glass windows are the most effective mode of decoration. On entering an apartment where the light is admitted through such windows, the result, especially when there is a harmonious combination of colors, is very pleasing.

Great praise is due to Mr. Wm. Schroeder of 39 1/2 Fremont street, for his artistic work in this line.

Mr. Schroeder has been in the business for a number of years, and has done some of the best work to be found in the city. All the art glass work in the Louvre was done by him, and he has just been awarded the medal at the State Fair at Sacramento for excellent samples of his work.

The largest contract of its nature ever awarded on the coast was that for the bending of the glass for the dome over the central court of the Mills building, and this was secured by Mr. Schroeder, and he is now engaged on its completion. Embossing, beveling, staining and bending in all their branches are performed in his factory.

Samuel Cabot of Boston sends to us a number of colored views of dwellings showing the artistic effects that may easily be obtained by the use of the "Creosote stains" and are intended as suggestions for color treatment. Recently we have noticed some beautiful effects of these stains where good judgment is used when applying them to our redwood shingles; in some examples, the colors were blended gradually from one color to another, and from light to dark or *per contra* of the same color.

While their artistic effects are good these stains are preservative in a high degree and at a time like the present when the "health question" is so prominent, their value is enhanced on account of the disinfecting qualities of their components. Moss, fungus and other forms of growth which engender may of the preventable diseases are rendered inactive or destroyed where these stains are used. Thus the useful is made pleasing and at a less cost than by other method.

Ives Sash Locks still hold their own over others in the market. They are strong and serviceable and become favorites whenever used. They can be had at all first-class hardware stores.

TENDERS TO BE RECEIVED.

Treasury Department, Office Supervising Architect, Washington, D. C., October 7th, 1892. Sealed proposals will be received at this office until 2 o'clock P. M. on the 1st day of November, 1892, and opened immediately thereafter, for all the labor and materials required for the trench excavation, foundations, basement and area walls, basement columns and first floor beams for the U. S. Court House and Post Office Building at Mankato, Minnesota, in accordance with drawings and specification, copies of which may be had on application at this office or the office of the Superintendent at Mankato, Minnesota.

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 Trench Excavation, Foundations, Basement and Area Walls, Basement Columns and First Floor Beams for the U. S. Court House and Post Office Building at Mankato, Minnesota," and addressed to,

W. J. EDBROOKE,
Supervising Architect.

CITY BUILDING NEWS.

Ashbury near Fell. Painting, plumbing, etc.; owner, M. A. Moldenhauer; architect, W. H. Little; contractor, Jos. Kennedy; cost, \$1,475; signed, Sept. 24; filed, Sept. 26; payments, \$21.25 frame on; \$21.25, enclosed; \$21.25, brown mortar on; \$21.25, standing finish on; \$21.25, completed; \$86.75, 35 days.

Ashbury near Frederick. Two-story frame and stable owner, W. J. Robinson; contractor, George Harding; cost, \$3,190; signed, Aug. 3; filed, Aug. 3; payments, \$90, frame up; \$60, brown mortar on; \$60, doors hung; \$60, completed; \$80, 35 days.

Braunton and Norton. Two-story frame; owner, George Miller; contractor, Albert Norton; cost, \$3,375; signed, Sept. 2; filed, Sept. 2; payments, \$43.75, main floor laid and basement finished; \$43.75, roof on; \$43.75, completed; \$83.75, 35 days.

Bryant near Fourth. Three-story frame; owner, Edward Lyons; contractor, M. C. Lynch; cost, \$3,130; signed, Aug. 16; filed, Aug. 16; payments, \$1,285, frame up and enclosed; \$1,200, brown mortar on; \$1,200, completed; \$1,285, 35 days.

California near Battery. Alterations and additions; owner, Robt. Sherwood; architect, Clinton Day; contractor, J. L. Chrichton; cost, \$1,624; signed, Sept. 27; filed, Sept. 28; payments, \$600, brown mortar on; \$625, completed; \$109, 35 days.

California near Buchanan. Alterations and additions; owner, Chas. Knoche; architect, Chas. M. Rousseau; contractors, Miron & Gardner; cost, \$1,000; signed, Sept. 17; filed, Sept. 19; payments, \$250, roof on; \$250, brown mortar on; \$250, completed; \$250, 35 days.

California and Jones. Excavation, concrete, etc.; owner, Geo. Whittell; architects, Foxhead & Coxhead; contractor, Cal. Bridge Co.; cost, \$8,997; signed, Sept. 1; filed, Sept. 2; payments, 1st day of each month, 75 per cent. of work done; balance, 35 days.

California near Montgomery. Alterations and additions to a four-story brick building; owner, Isabella Stevenson; architect, H. Geiffuss; contractor, W. A. Miller; cost, \$2,127; signed, Sept. 14; filed, Sept. 15; payments, 1st and 15th day of each month 75 per cent. of work done; balance, 35 days.

California near Montgomery. Elevator work on a four-story brick building; owner, Isabella Stevenson; architect, H. Geiffuss; contractors, A. J. McNeill & Co.; cost, \$3,650; signed, Sept. 15; filed, Sept. 15; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Cassell Ave. near Douglas. Five-room cottage; owner, Constantin Holubar; contractor, George Lack; cost, \$1,353; signed, Aug. 30; filed, Sept. 6; payments, \$30, frame up; \$30, brown mortar on; \$30, completed; \$33, 35 days.

Church near 27th. Alterations and additions; owner, A. F. Moore; contractor, W. Plant; cost, \$1,210; signed, Sept. 7; filed, Sept. 8; payments, \$600, enclosed; \$300, plastered; \$200, completed; \$210, when bills are presented to owner and receipted.

Clay near Larkin. Two-story frame and basement; owner, Mrs. E. Dwarzake; architect, C. M. Rousseau; contractors, Hodgkins & Kinsley; cost, \$4,100; signed, Sept. 7; filed, Sept. 8; payments, \$1,000, frame up; \$500, brown mortar on; \$500, plastered; \$1,025, completed; \$1,025, 35 days.

Dorland near Church. Two-story frame; owner, Edw. Mitchell; contractor, James McHenry; cost, \$3,040; signed, Sept. 27; filed, Sept. 27; payments, \$725, frame up; \$725, brown mortar on; \$750, completed; \$80, 35 days.

East and Mission. Additions, millwork, etc.; owners, Kistenmacher Bros. architect, F. T. Peterson; contractor, R. Herring; cost, \$900; signed, Aug. 29; filed, Sept. 13; payments, \$50, mill work set up, completed for use; \$250, 35 days.

Eddy and Gough. Painting, varnishing, etc.; owner, St. Paul's Lutheran Church; architect, J. E. Kraft; contractor, J. H. Miller; cost, \$1,428; signed, Sept. 6; filed, Sept. 7; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Fell near Gough. Two-story and basement frame; owner, Bertha Kaempler; architects, John & Balczynski; contractor, Peter Johnson; cost, \$1,300; signed, Sept. 3; filed, Sept. 7; payments, \$600, frame up; \$600, enclosed, floors laid and partitions set; \$900, plastered; \$75, completed; \$825, 35 days.

Fifteenth near Castro. Carpenter work, plumbing, etc.; owner, A. J. Boling; architects, Smith & Freeman; contractor, R. J. Malone; cost, \$1,023; signed, Aug. 31; filed, Sept. 3; payments, \$550, frame up; \$473, completed; \$250, 35 days.

Filbert near Jones. Two-story and basement frame; owner, Jacob Ohlenutz; architects, John & Balczynski; contractors, Behrend & Hyde; cost, \$3,500; signed, Sept. 6; filed, Sept. 7; payments, \$600, frame up; \$600, enclosed, floor laid and partitions set; \$600, plastered; \$75, completed; \$825, 35 days.

Folsom, No. 2402 Mission Block. To build; owner, Margaretta Both; architects, Townsend & Wyneken; contractors, M. Weber & Co.; cost, \$1,081; signed, Sept. 3; filed, Sept. 6; payments, \$200, frame up; \$200, brown mortar on; \$200, plastered and primed; \$211, completed; \$270, 35 days.

Fourteenth and Folsom. Three-story frame, four flats and two stores; owner, Mrs. Anne Green; architect, Julius Kraft; contractor, Chas. Wagner; cost, \$2,125; signed, Sept. 12; payments, \$1,500, frame up; \$1,500, brown mortar on; \$1,500, plastered; \$1,500, completed; \$2,000, 35 days.

Geary and Octavia. Lath, plaster, cement and centers; owner, R. M. Black; architect, Wm. Curlett; contractor, Thos. Bodkin; cost, \$2,800; signed, Aug. 31; filed, Sept. 6; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Geary and Octavia. Gas-fitting and plumbing on seven houses; owner, R. M. Black; architect, Wm. Curlett; contractors, S. Iselheimer & Bros.; cost, \$2,051; signed, Aug. 20; filed, Sept. 18; payments, \$1,475, rough work in; \$737.75, fixtures set up complete; \$737.75, 35 days.

Gough and Eddy. Frame building with brick basement; owner, St. Paul's Lutheran Church; architect, Julius Kraft; contractor, Wm. Plunz; signed, Sept. 3; filed, Sept. 6; payments, \$2,000, doors and window frames in; \$2,000, frames up and sheathed; \$3,000, roof, spires and frame sheathed and ready set; \$3,000, interior boarding and exterior finish on and window frames set; \$3,000, rough floors laid, ceiling sheathed, rough stair work in and partitions ready for lathing; \$2,000, floors laid, shingling and finish of ceiling complete, shingles glazed and ready for stained glass; \$2,000, interior finish on and exterior doors hung; \$2,440, completed; \$6,440, 35 days.

Gough and Eddy. Grading, excavating, brickwork, etc.; owner, St. Paul's Lutheran Church; architect, Julius Kraft; contractor, Chas. Wagner; cost, \$3,200; signed, Sept. 3; filed, Sept. 6; payments, \$1,500, concrete walls built and ready for basement floor joists; \$2,000, wall up ready for main floor joists; \$325, completed; \$1,345, 35 days.

Gough and Eddy. Lathing and plastering; owner, St. Paul's Lutheran Church; architect, Julius Kraft; contractor, Thos. Munnix; cost, \$1,335; signed, Sept. 3; filed, Sept. 6; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Gough and Eddy. Galvanized iron and copper work; owner, St. Paul's Lutheran Church; architect, Julius Kraft; contractors, Forderer & Cornice Works; cost, \$1,889; signed, Sept. 3; filed, Sept. 6; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Gough and Eddy. Plumbing, gas-fitting, etc.; owner, St. Paul's Lutheran Church; architect, Julius Kraft; contractor, H. Williamson; cost, \$1,161; signed, Sept. 6; filed, Sept. 6; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Grave and Van Ness. Alterations and additions; owner, Isaac Harris; contractor, J. J. Morehouse; cost, \$1,470; signed, Sept. 12; filed, Sept. 12; payments, \$85, brown mortar on; \$417.50, completed; \$417.50, 35 days.

Harrison near 21st. Dwelling; owner, Jas. Laughlan; architect, A. Gordon; contractors, Houston Bros.; cost, \$3,085; signed, Sept. 16; filed, Sept. 16; payments, \$771, frame up and rustic on; \$771, brown mortar on; \$771, plastered; \$772, 35 days.

Harrison near 22th. Two-story frame; owner, Patrick Canfield; architect, M. J. Welsh; contractor, C. A. Anderson; cost, \$2,500; signed, Sept. 13; filed, Sept. 13; payments, \$600, frame up; \$1,000, ready for lathing; \$50, exterior mill work completed; \$850, woodwork finished and ready to paint; \$365, completed; \$1,225, 35 days.

Hayes and Octavia. Four-story frame; owner, Robt. Hubbs; architect, J. C. Newsom; contractor, John Furness; cost, \$25,514; signed, Aug. 3; filed, Sept. 10; payments, \$3,000, excavation and brick foundation completed; \$2,000, 2d floor joists in; \$2,000, 3rd floor joists in; \$3,000, roof sheathed; \$3,300, enclosed and ready for lathing; \$2,851.50, outside primed and inside ready for finish; \$5,000, completed; \$6,378.50, 35 days.

Hayes and Octavia. Plastering and stucco work; owner, Robt. Hubbs; architect, J. Cather Newsom; contractor, J. C. McLeod; cost, \$3,066; signed, Aug. 30; filed, Sept. 20; payments, \$1,143.75, brown mortar on; \$1,143.75, plastered; \$766.50, completed.

Hayes and Octavia. Plumbing and gas-fitting; owner, Robt. Hubbs; architect, J. Cather Newsom; contractors, W. Snook & Son; cost, \$2,294; signed, Aug. 30; filed, Sept. 20; payments, \$80.25, rough plumbing in; \$80.25, accepted; \$73.50, 35 days.

Howard near Eagle. To build; owner, Edward H. Gladwin; architect, C. I. Havens; contractor, John Bruce; cost, \$2,360; signed, Sept. 1; filed, Sept. 17; payments, \$500, enclosed; \$500, hard finished and outside primed; \$500, completed; \$500, 35 days.

Howard St., Nos. 1502 and 1501. Alterations and additions; owner, G. Ransch; architects, John & Balczynski; contractor, John Sandeen; cost, \$3,400; signed, Sept. 1; filed, Sept. 3; payments, \$600, porches of former buildings finished; \$50, new frame of 1st story and part of 2d and 3rd stories up; \$550, plastered; \$650, completed; \$550, 35 days.

Howard St., Nos. 1502, 1501 and 1500. Alterations and additions; owner, G. Ransch; architects, John & Balczynski; contractor, J. McQuinn; cost, \$5,500; signed, Sept. 6; filed, Sept. 7; payments, \$300, stairs of rear porches of corner building up; \$400, new frame up; \$550, enclosed and brown mortar on; \$800, plastered and outside finish on; \$755, completed; \$875, 35 days.

Howard near 14th. Alterations and additions; owner, Leonora Krouse; architect, W. C. Dickerson; contractor, August Lund; cost, \$2,165; signed, Sept. 7; filed, Sept. 7; payments, \$340, frame up; \$600, enclosed and brown mortar on; \$545, completed; \$550, 35 days.

Howard near 19th. Two-story frame with cement foundation; owner, F. C. Howard; architect, C. M. Rosseau; contractor, Geo. Ritchey; cost, \$3,300; signed, Sept. 4th; filed, Sept. 15; payments, \$300, excavation and foundation done; \$500, frame up; \$500, brown mortar on; \$500, completed; \$550, 35 days.

Howard near 25th. Alterations and additions; owner, T. M. Bickford; architect, M. J. Welsh; contractor, F. A. Worden; cost, \$2,200; signed, Sept. 20; filed, Sept. 21; payments, \$550, frame up; \$550, brown mortar on; \$550, completed; \$550, 35 days.

Hyde near Post. To build; owner, Alice Moran; contractor, B. K. Albertson; cost, \$3,650; signed, Dec. 22; filed, Sept. 17; payments, \$1,500, enclosed; \$1,000, plastered; \$550, completed.

Joost Ave. near Acadia. One-story and basement frame; owner, John C. Turner; contractor, Jas. Campbell; cost, \$1,225; signed, Sept. 8; filed, Sept. 14; payments, \$381.25, frame up, rustic on and roof sheathed; \$381.25, brown mortar on; \$381.25, completed; \$381.25, 35 days.

Larkin near Bush. Three-story frame and brick basement; owners, Thos. Bailey and wife; architect, Chas. J. L. Havens; contractor, E. Kall; cost, \$4,800; signed, Sept. 13; filed, Sept. 13; payments, \$600, frame up; \$1,000, ready for lathing; \$850, exterior mill work is completed; \$550, wood work and ready to paint; \$365, completed; \$1,225, 35 days.

Larkin near Vallejo. Carpenter, mill, stair work, etc.; owner, J. F. Hinrichs; architects, Martens & Coffey; contractor, J. J. O'Brien; cost, \$3,878; signed, Sept. 2; filed, Sept. 6; payments, \$700, enclosed; \$700, outside finish on, floors laid and partitions set; \$750, plastered; \$750, completed; \$760, 35 days.

Liberty near Valencia. Frame building, brick foundation; owner, Stephen Wing; architect, J. E. Kraft; contractor, Daniel Powers; cost, \$1,330; signed, Sept. 10; filed, Sept. 12; payments, \$1,000, frame up, rustic on and roof sheathed; \$1,245, exterior finish on, brown mortar on; \$1,000, completed; \$1,085, 35 days.

Lot and Grove. To erect a building; owner, Louis Hilbing; contractor, Chas. Sturm; cost, \$2,900; signed, Sept. 2; filed, Sept. 7; payments, \$750, frame up and roof on; \$750, brown mortar on; \$750, inside trimming on and doors hung; \$550, 35 days.

Market near Powell. Electric work; owner, Annie Donahue; architect, C. I. Havens; contractor, Chas. J. L. Havens; cost, \$2,350; signed, June 25; filed, Sept. 12; payments, 1st day of each month 75 per cent. of work done; balance, 35 days.

McAllister, No. 37. Carpenter work, plastering, etc.; owner, M. E. Ulmer; architects, Stone & Munson; contractor, Chas. Condy; cost, \$2,070; signed, Sept. 7; filed, Sept. 7; payments, 75 per cent. as work progresses; balance, 35 days.

Minna near Lafayette. All work except plumbing and gas-fitting; owner, C. S. Laumeister; architect, C. I. Havens; contractor, Jas. McLean; cost, \$1,080; signed, Sept. 3; filed, Sept. 13; payments, \$750, frame up and enclosed; \$500, rough gas and water pipes in and brown mortar on; \$500, plastered and outside mill work up; \$750, completed; \$1,012, 35 days.

Mississippi near Napa. Two-story frame and brick basement; owner, J. P. Wheeler; architect, M. T. Welsh; contractors, Curick & Leonard; cost, \$5,200; signed, Sept. 20; filed, Sept. 20; payments, \$1,300, frame up; \$1,300, brown mortar on; \$1,300, completed; \$1,300, 35 days.

Mission near New Montgomery. Alterations and additions; owners, R. Barron & G. J. Hawn; contractor, Bernard Dreyer; cost, \$5,254; signed, Sept. 10; filed, Sept. 21; payments, \$855, Oct. 1, 1892; \$855, Oct. 15, 1892; Nov. 1, 1892; completed.

Oak near Buchanan. Two-story frame; owner, Wm. T. Cummings; architects, Townsend & Wyneken; contractor, John Foster; cost, \$6,230; signed, Sept. 1; filed, Sept. 20; payments, \$1,300, enclosed; \$1,200, brown mortar on; \$3,730, 35 days.

Park Hill Ave. and Park road. Steam heating, etc.; owner, Sister M. Otilia; architects, Shea & Shea; contractors, A. Baumeister & Co.; cost, \$1,078; signed, Sept. 3; filed, Sept. 10; payments, \$778, when boiler and rough work in place; \$700, completed; \$500, 35 days.

Pierce near McAllister. Two-story frame; owners, J. C. Bothin and wife; contractors, Soule & Howley; cost, \$8,000; signed, Sept. 8; filed, Sept. 10; payments, \$1,125, upon execution of this agreement; \$1,000, frame up; \$2,000, brown mortar on; \$1,875, completed; \$2,000, 35 days.

Pine near Hyde. To build; owner, Peter Jorgensen; architect, W. H. Little; contractor, C. Rogers; cost, \$6,000; signed, Sept. 21; filed, Sept. 21; payments, \$1,500, old building moved, frame set and frame of new building up; \$1,500, frame of stable is up and brown mortar on new building; \$1,500, completed; \$1,500, 35 days.

Pleasant near Jones. Grading, brickwork, etc.; owner, Jane E. Palmer; architect, Fred B. Wood; contractor, L. E. Judkins; cost, \$4,738; signed, Sept. 1; filed, Sept. 13; payments, \$888, 1st floor beams on; \$888, enclosed; \$888, brown mortar on, windows hung and outside finish; \$1,181, 35 days.

Powell and Washington. Alterations and additions; owner, D. L. Fouts; architect, W. M. Arnitage; contractor, J. R. Whalen; cost, \$2,100; signed, Aug. 2; filed, Sept. 3; payments, \$925, underpinned and enclosed; \$525, brown mortar on; \$525, completed; \$525, 35 days.

Ridley and Guerrero. Three-story frame; owner, Mrs. R. C. Winch; contractors, G. J. & A. E. Ulrich; cost, \$3,428; signed, Sept. 20; filed, Sept. 20; payments, \$1,000, frame up and ready to be enclosed; \$1,000, enclosed and brown mortar on; \$1,428, completed and accepted.

Sacramento and Scott. Three-story frame, six flats; owner, W. E. Lane; architect, J. C. Newsom; contractor, Wm. A. D'Arcy; cost, \$1,100; signed, Sept. 12; filed, Sept. 12; payments, \$300, lathing completed; \$300, brown mortar on; \$225, completed; \$275, 35 days.

Sadowsa and Plymouth. Two-story frame and basement; owner, Mrs. L. Rosenthal; contractors, Morrison & Cook; cost, \$1,073; signed, Sept. 16; filed, Sept. 16; payments, \$475, enclosed; \$400, brown mortar on; \$400, completed; \$400, 35 days.

Sadowsa and Plymouth. Two-story frame; owner, Agnes Van Wyl; contractors, Morrison & Cook; cost, \$2,000; signed, Aug. 1; filed, Sept. 16; payments, \$450, enclosed; \$450, brown mortar on; \$450, completed; \$450, 35 days.

San Jose Road near Geneva. Cottage and basement; owner, Frank Furrer; contractor, H. R. Schmuckert; cost, \$1,800; signed, Sept. 26; filed, Sept. 26; payments, \$450, rustic on; \$450, brown mortar on; \$450, completed; \$450, 35 days.

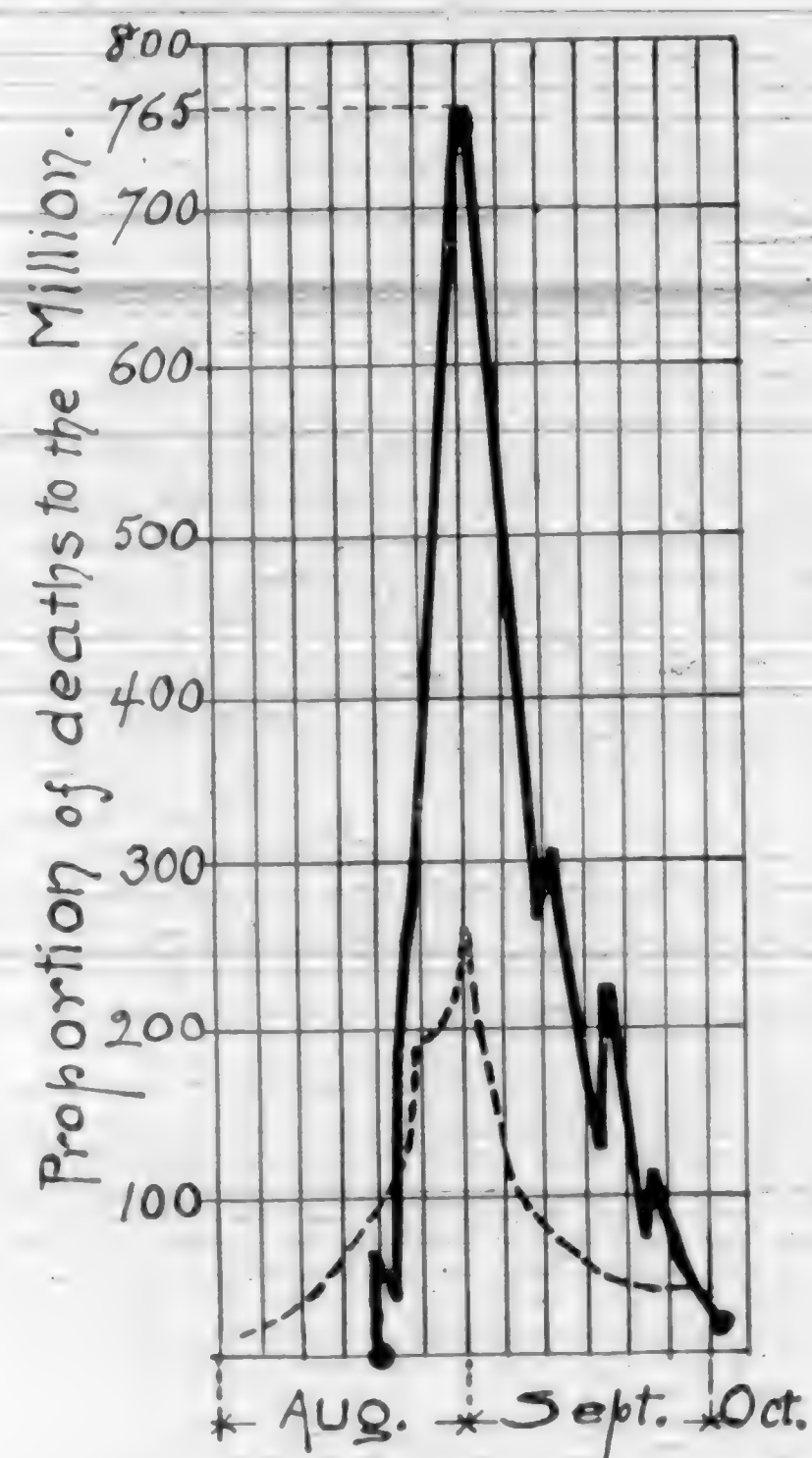
Scott near Turk. One-story frame; owner, Isabel Durney; architect, M. J. Durney; contractor, F. Williams; cost, \$1,650; signed, Sept. 21; filed, Sept. 27; payments, 1st Saturday of each month 75 per cent. of work done; balance, 35 days.

CHOLERA IN EUROPE.

THE United States has so far escaped from the Cholera epidemic which has prevailed so extensively in some of the countries of Europe. It appears that when once the germs of Cholera have been introduced in an insanitary locality it is impossible to say when and with what intensity the epidemic may revive.

The illustration shows the rise and fall of the death rate at Havre and Hamburg. The horizontal lines and figures at the side of the diagram indicate the death rate per one million inhabitants, and the spaces between the vertical lines represent five days each.

In Havre, the first deaths from Cholera occurred July 5th, varying in intensity till August 31st, when it reached the proportion of two hundred and fifty deaths to the million (as



shown by the dotted line) then it dropped to the rate of fifty.

In Hamburg, it commenced on the 19th of August and reached the proportion of seven hundred and sixty-five on September 1st, when it receded to a proportion of ten by the end of September. This is shown by the heavy line in the illustration.

In Rouen the epidemic commenced in the later part of July and fluctuated between five and forty till September 20th and 30th, when it reached fifty and then nearly subsided on October 5th.

In Paris it commenced about June and was nearly ended by October 5th. Owing to the care in the sanitary condition of Paris the death rate did not exceed ten.

In Havre, out of the first fifty patients taken to the hospital, forty eight died. At one of the hospitals twelve cases of Cholera were contracted within the walls of the hospital from the cases admitted, when the Cholera patients were

sent to another hospital where over one thousand cases were treated and not a single case of Cholera occurred within its walls.

This hospital is built on the Tollet system, and consists of isolated pavilions in the shape of the gothic arch, devoid of angles, well ventilated, with light and air on all sides. The rate of mortality was much less in this hospital than the first one mentioned which is built on the block system, several stories in height.

The disinfecting is done by means of stoves, dry heat or steam being used for clothing, bedding, etc. The walls and furniture are sprayed with solution of mercury chloride. The walls are then scraped, scrubbed and whitewashed.

We are indebted to the *Lancet* for the notes for foregoing illustrations and descriptions.

ARCHITECTURAL EXHIBIT.

PAPER read before the San Francisco Chapter A. I. A. by the President, Mr. Geo. H. Sanders.

To the San Francisco Chapter of the A. I. A.

GENTLEMEN:—I beg respectfully to invite your attention to a subject which has already engaged it to a limited extent. I allude to the proposed architectural exhibition in which every branch of art employed in the production of architectural works would be included; and setting forth in practical shape the relationship of architecture thereto as the chief of all the arts.

With this done in an effective way, accompanied by drawings, plans, elevations and sections, and in some cases by details or art on exhibition, it is probable that we, ourselves, would be surprised at the extent and comprehensiveness of the exhibition.

To effect this in a proper manner, would, of course, involve a great deal of careful study, arrangement and expense. Much of the latter should be borne by the exhibitors. It would require a great deal of canvassing to get people to understand the advantage to them, and the bearing their exhibit would have on the whole.

It has occurred to me that if the material (of appropriate architectural character) which will be sent to the World's Fair, could be arranged in one exhibit, with the above in view, supplanted by drawings and other accessories, and such other art works of different kinds as may be procurable, it would seem that the best possible result, at the least possible cost, would be attained.

By judicious advertising a special audience could probably be secured and a series of papers might possibly be prepared and read on several occasions, explanatory of the exhibit, and this would bring out the connection of the exhibits and illustrate the value of architectural style, etc., and the method of its attainment, as well as the necessity existing for the organized effort in the direction of the establishment of art classes or an association which would have for its object the unification of art and the resultant advantages to be thereby attained; also by the organization of a proper school of design under the charge of the Chapter. Such a school would embrace the whole range of architectural design presided over by the professor of architecture attached to the Stanford or California Universities, should such a chair be created in the future. In this way, through the university extension system lately introduced in England, and later in America, and now proposed to be carried out by the University of California, a more or less efficiently conducted system of instruction could be inaugurated leading

to the widely beneficial results. The special classes would be attended by the apprentices and pupils of the different branches of the organization, who would, of course, attend the lectures of the university professor, as well as benefit by the special instruction of the teachers of the school in its subordinate branches. The expense would be partially borne by the pupils themselves, and partly by the contributions of the various departments of the school as a whole.

These would consist of—1st. The Architectural Students. 2d. Students of Decorative Design, Fresco Painters and Furniture, etc. 3rd. Carpenters. 4th. Brick and Terra Cotta Workers. 5th. Metal Workers. 6th. Carvers in Wood and Stone. 7th. Modelers and Plaster Works. 8th. Jewelers, Silver and Goldsmiths, and Engravers. 9th. Lithographers and Wood Cutters. 10th. Sculpture. 11th. Painting. 12th. Engraving, Photographic Work, etc.

In short, of all who would derive benefit, (and who would not) from a knowledge of the true principles of design in architecture.

It might possibly be argued that some of these had better be left to pursue their own course in freedom, evolving their own principles independent of all others and so in a special way working out their own salvation on their own lines, and, independent of all hampering knowledge of architectural taste, developing their own work in their own way.

But it must not be forgotten that Art is one and the one principle obtained in the crystallization of the snow-flake, the growth of the simplest as well as the most complex flower and in the structure of the most highly organized animal as well as in the most complex work of man. All the former, are governed, and the latter should be, by the same law of centralization and subordination of means to ends in the most direct and efficient as well as economical manner, and this, first and last, is Design.

But there is another consideration connected with the above scheme, which, if pursued with energy, might ultimate in the happiest results to architecture. Why could not such an exhibition through the media of the various chapters of the Institute, and by suggestion and example of the Institute itself be brought about at the coming Columbian Exhibition? Important as our own exhibit might be made here as evincing the progress attained in Design in this far-away margin of the Columbian continent, how much nobler a display could be made by a contribution of many such collections from the different states in the Union arranged on similar principles and associated in one great collection in their order of age and development in the greatest exposition of the Arts ever held on Earth?

If one thing more than another would be emphasized, it would be the need of controlling principles in design, and the predominance over all other influences of the Architectural Idea.

This would be seen to be all controlling and universal in everything connected with Art, and it would be at once seen how a beneficial and organized system of instruction and guidance under the above controlling influence would become and how indispensable it is that sooner or later such a system should be introduced.

It seems to me that the right course would have been to have drawn up a memorial to the Institute at its present convention suggesting some such course as is above advocated, even if it involved the construction by the Architects of an architectural exhibition building to receive the exhibits, if space could in no other way be secured.

It would appear from certain notices sent out to the different Chapters and perhaps to individual members of the Institute that in a modified way the above suggestion has already been arranged for, and that an exhibition hall and a

collection of some sort has already been provided for.

It is not probable however, that if it is intended to cover anything like the wide extent of art work suggested above, and will, consequently fail in a corresponding degree to effect the desired result.

GEO. H. SANDERS.

FIRE-PROOF HIGH BUILDINGS.

THE Fire Underwriters' Association of the Northwest held its twenty-third annual meeting in Chicago, Sept. 27th. Valuable papers and suggestions were presented and a full report of same published by the "*Indicator*," a journal devoted to insurance matters, and to which we are indebted for the following paper by D. J. Sweeney, Chief Marshall of the Chicago Fire Department.

HIGH BUILDINGS—THEIR INTERNAL AND EXTERNAL HAZARD FROM FIRE.
BY D. J. SWEENEY, OF CHICAGO.

To the Fire Underwriters' Association of the Northwest:

GENTLEMEN—So much has been said and so many conflicting opinions expressed through the medium of the daily press, both for and against the modern high building, for examples of which this city is pre-eminent and justly proud, that I fear it is impossible for me to say anything in reference to the internal and external fire hazard of such buildings with which you are not already familiar.

The massive appearance and architectural beauty of our high buildings excite the admiration and wonder of the beholder; but the fireman goes a step farther and takes into consideration the probable chances of such a building becoming a prey to the flames, either during construction or when completed.

When we realize that we have buildings in this city that tower to a height of from 150 to 300 feet, and that a fire is liable to occur in the topmost stories of such buildings, we are free to admit that we must depend to a great extent upon the skill and practical experience of the architect to assist the firemen in protecting them from destruction by fires, by designing and causing to be erected what we can reasonably regard as fire-proof structures. Not alone fire-proof within their four walls, but capable of withstanding the intense heat to which they might be subjected if a fire were raging in adjoining buildings.

Taking up first the internal hazard, this will be governed to a great extent by the use to which the building is to be put, whether for offices exclusively, for office and mercantile purposes combined, or exclusively for merchandise. The two last named classes may be disposed of once for all with the statement, that no style of construction and no building material have ever come under my observation which will render fire-proof a building filled with inflammable goods. In a building of the class under discussion, a fire in a room or floor filled with goods might, in a very short time, gain such headway as to seriously imperil the entire structure by the expansion, warping or twisting of the iron or steel framework, and with such a state of facts existing 150 or 300 feet above the ground, it would be next to impossible to do effective work. No building to be used in whole or in part for the storage or sale of merchandise should exceed, in any event, 125 feet in height, and might, with advantage, be much less.

Assuming, then, that our building is to be used solely for offices, I am satisfied that from the point of view we are now discussing, the modern high building is to a reasonable degree fire-proof, where, both in the material used and in the construction, every precaution has been taken into consideration and faithfully carried out to prevent a fire gaining headway in any part of the building.

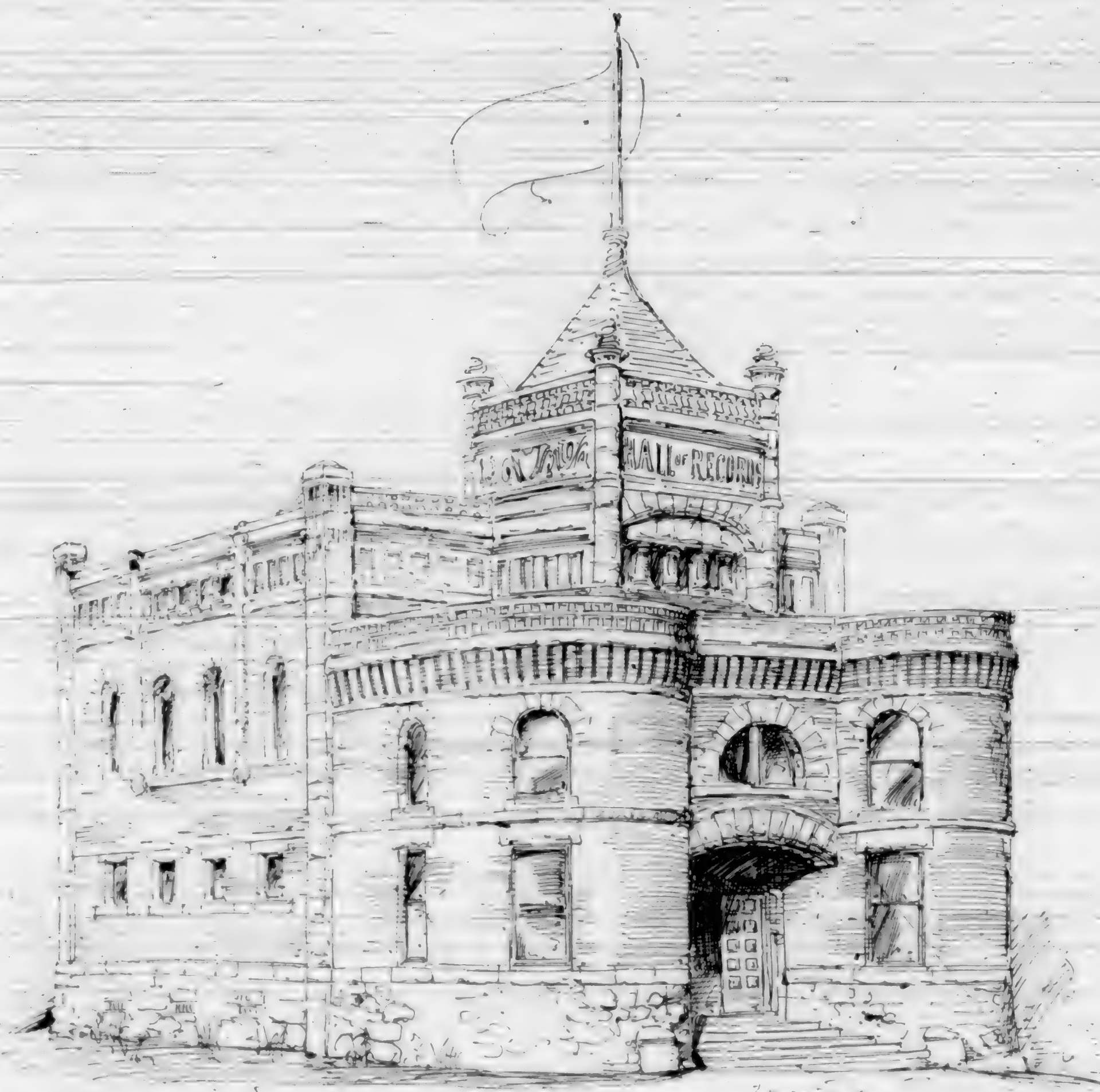
While such is the case, it does not follow that the greatest care and the utmost precaution should not at all times be exercised to prevent fire, and to promptly extinguish it, should one occur. Each additional tenant increases the hazard, for although the time-honored fire-place and stove have been replaced by steam and hot air, and the candle and kerosene

lamp are giving way to the electric light, the careless smoker and the friction match are still with us. The changes mentioned are not always, however, in the line of safety, for the electric wires require the most careful placing and attention to prevent their becoming a source of danger. As an instance of this—wires are frequently conducted from floor to floor through a small shaft lined with wood, the wire being fastened to the sides. The danger of this is apparent when we consider that the insulating material used on electric wires, as well as the wooden lining of the shaft, are highly inflammable, and should a fire occur in a shaft of

sufficient thickness of non-combustible and non-conductive material to prevent the possibility of its bending or expanding to any serious extent.

We may concede then, that buildings of the class under discussion are, so far as internal hazard is concerned, practically fire-proof. Let us now view them from the standpoint of the external hazard or, in other words, the danger from fire to which they may be subjected from the outside.

Many high buildings of the style now being constructed, have the steel columns supporting them encased in but four inches of brick or tile. In some cases, where there are



W. J. CUMBERTSON Architect

SKETCH FOR A HALL OF RECORDS.

this kind, it would be difficult to locate, and afford an excellent avenue for the spread of the flames. To meet this difficulty, I have instructed our inspectors to refuse certificates in all cases where shafts are lined with wood.

The sweepings and waste paper should at once be burned under the boiler or else carried out of the building, and not allowed, under any circumstances, to accumulate. I have in mind two calls on our department from one of the finest high office buildings of the city, and in each case the fire originated in the janitor's waste paper room in the attic.

Before leaving the question of internal hazard, I wish to call attention to the iron and steel universally used in buildings of this class. The iron columns and other metal frame work of the building should be covered at all points with a

adjoining buildings, the party wall is used as far as it goes and the iron work placed directly against this wall. This affords practically no protection in case of a hot fire in an adjoining building, or even across the street or rear alley. Sufficient heat is liable to be generated to pass through the brick shell and cause the columns to expand sufficiently to displace the arches, one after another, and thus bring about a collapse of the building. In case the party wall gives way, the iron work is exposed directly to the flames with a like result.

As an illustration of this I may cite a fire which occurred in this city a year or two ago. A building of this description was being constructed and was up several stories, the iron work being directly against the party wall. The joists

of the adjoining building were fastened to the wall with the old style strap anchor, and a fire in the building caused them to fall, the wall went with them, leaving the iron of the new building exposed. The result was that the new frame was so badly twisted and warped as to be useless.

To quote from a recent article on the subject: "No tall building should be erected that does not make use of its own individual side walls, these walls being so constructed and tied to the beams that no falling beam can break them or cause them to fall. These dividing walls should be an absolute barrier against fire, and should not be made thin and weak."

Architects should remember, that this class of buildings is only assailed by a conflagration, and nothing can withstand a conflagration so well as a standing brick wall. Many architects do not think it necessary to tie the beams to the wall, believing that the weight and friction are enough to hold the walls. This may be all right in ordinary cases, but in extraordinary cases, such as the occurrence of a fire, the walls should be held in position as long as possible.

I fully endorse this and desire in addition to call attention to what I believe a pernicious practice, namely, that of leaving a wall overlooking another building full of openings for windows. In case the lower building is destroyed by fire the heat and flames are almost certain to sweep through these openings into the higher structure with the probable result of destroying it also.

Assuming, then, that the necessity may at any time exist for fighting fire in one of these high buildings, the question presents itself: What preparation should be made on the part of the owners to meet the emergency?

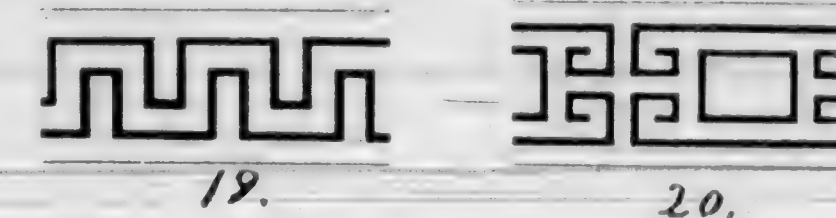
All buildings such as these have ample boiler capacity already at hand, and should be furnished with the necessary pumps to protect the building by providing, in case of fire, an abundant supply of water. There should be a stand pipe extending through the interior to the roof with hose attached on each floor sufficient to reach the most remote corner. Chemical extinguishers should be provided and kept in plain sight and ready for instant use. Each floor should have an electric call communicating with the engine room. All apparatus should be of the best make and provided with the most approved modern appliances. Hose should correspond in size with that used by the fire department, and couplings should have the same thread.

On exposed exteriors there should be lateral perforated pipes connected with a stand pipe, by means of which, in case of fire, a curtain of water could be spread over the sides of the building.

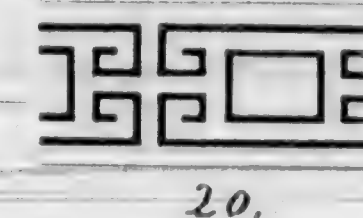
The custodian and his assistants should be thoroughly drilled in the use of the extinguishers and managing the hose and stand pipes. This drill should be frequent enough to keep them in practice, and every one connected with the care of the building should be impressed with the necessity of instantly notifying the fire department whenever a fire, even the most insignificant, occurs. I find on investigation that in nearly all of our high buildings there is no elevator service later than eleven o'clock at night. At least one elevator in a building should at all times be in service ready for instant use, and some one should be on hand to run it the moment the department arrives. Where the fireman has to climb 150 to 300 feet, carrying his appliances, to reach the fire, it is unreasonable to expect of him prompt and efficient work, to say nothing of the loss of time in reaching the field of action.

To sum up the whole matter the modern high building composed of steel or iron frame encased in brick or terra cotta, is as yet an untried experiment so far as its fire resisting qualities are concerned. There is good ground for the belief that a covering of considerably more than four inches would be necessary to protect the frame from a severe blaze continued for any great length of time; but with substantial, solid brick side walls capable of standing alone, and front and rear covering of sufficient thickness and properly anchored to resist the heat to which they are liable to be exposed, where precautions such as I have noted are taken for the protection of the interior, I think the modern high office building may be regarded as practically fire-proof.

FRETS showing examples from 1 to 18 were printed in the October issue and this number contains examples from 19 to 36. Other illustrations of these frets will appear in future numbers.



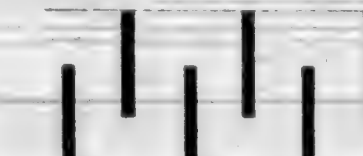
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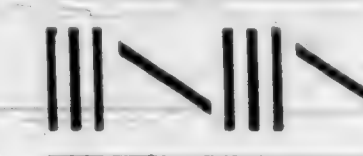
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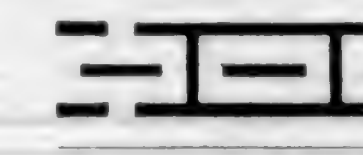
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36.

THE December Number of the CALIFORNIA ARCHITECT AND BUILDING NEWS, will be a Special Hospital Edition and will contain the three designs that were selected by the Committee from the large number submitted in the recent competition. The Journal will also contain other information relating to Hospitals and Hospital Construction. The price of this number will be fifty cents, but subscribers for the year 1893, whose names are sent in before January 1st, will receive this number free. Only a limited number will be printed, therefore names should be sent in early.

SANITATION "IN YE OLDEN TYME".

IN looking over a number of *Our Young Folks*, published in 1866, by Ticknor & Fields, we came across a description by F. W. Newcomb, showing how the plague was stayed in those days.

"One of the principal rites connected with St. John's Eve was the building of great bonfires, around which youths and maidens, gayly decked with wreaths, and bearing bouquets of flowers and sweet herbs in their hands, danced to merry measure. Then they all passed through the flame, leaving their garlands and flowers to be burned, and thereafter considered themselves safe from attacks of ague for the ensuing year. They also believed that, if they looked at the fire through the nosegays they carried, they would insure their eyes thereby from any painful disorder. In Ireland, within not many years now past, it was the custom to build these bonfires on commanding eminences, the heads of families passing through the midst with their households. This is supposed to have been a relic of the ancient worship of the sun, or of Bel (or Baal), the god of fire."

On the other hand, however, the observance is claimed as a tradition of early Christianity; the particulars (from an ancient missal) of the destruction of certain fiery dragons throwing some light upon the origin of the custom, and explaining the title of "bonfires," by which such festival illuminations are still known:—

"In worship of Saint Johan the people waked at home, and made three manner of fyres: one was clene bones and noo woode, and that is called a bone fyre; another is clene woode and no bones, and that is called a woode fyre, for people to sit and wake thereby; the third is made of wode and bones, and it is called Saynt Johanny's fyre. The first fyre, as a great clerke, Johan Bellet, telleth, he was in a certayne cuntry, so in the cuntry there was soo greete hete, the which causid that dragons to go togyther in tokenynge that Johan dyed in brennyng love and charyte to God and man. Then, as these dragons flewe in th' ayre, they shed down to that water froth of ther kynde, and so envynmed the waters and caused moche people for to take theyr deth thereby, and many dyverse syknesse. Wyse clerks knoweth well that dragons hate nothing more than the stenche of brennyng bones, and therefore they gadered as many as they mighte fynde, and brent them; and so, with the stenche thereof, they drove away the dragons, and so they were brought out of greete dysese."

It is a little curious to notice that in the pestilence that was believed to be stayed, as related above, by building bone fires, the cause was supposed to be poisoned water. I believe there is no case on record of the prevalence of the plague or the cholera among a very ignorant people, where the inhabitants were not possessed with the same idea, that the water had been poisoned. Sometimes hundreds of Jews fell victims to the delusion, sometimes hundreds of Christians; and once, in St. Petersburg, not very many years since, during a visitation of cholera, all the hospitals were broken open by the frantic Moujiks, who murdered the French physicians in attendance, under the belief that they had poisoned the wells to rid the city of its crowds of poor.

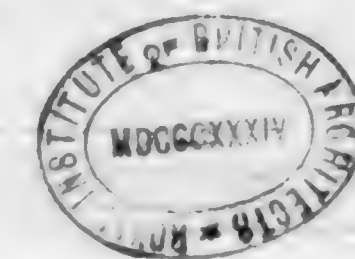
REMOVAL.—Mr. Fred. B. Wood, Architect, has removed his office to 214 Pine street, Room 57.

A table of lumber measure is convenient to have when making bills of quantities. In the table here given the length of the timber is set off in the upper line ranging from 12 to 30 ft., and the size is indicated in the left hand column. Thus a stick 6x6 in. and 26 ft. long contains 78 ft., board measure.

TABLE OF LUMBER MEASURE.

Size in Inches.	12	14	16	18	20	22	24	26	28	30
2x3	6	7	8	9	10	11	12	13	14	15
2x4	8	9	11	12	13	15	16	17	19	20
2x6	12	14	16	18	20	22	24	26	28	30
2x8	16	19	21	24	27	29	32	35	37	40
2x10	20	23	27	30	33	37	40	43	47	50
2x12	24	28	32	36	40	44	48	52	56	60
3x4	12	14	16	18	20	22	24	26	28	30
3x6	18	21	24	27	30	33	36	39	42	45
3x8	24	28	32	36	40	44	48	52	56	60
3x10	30	35	40	45	50	55	60	65	70	75
3x12	36	42	48	54	60	66	72	78	84	90
3x14	42	49	56	63	70	77	84	91	98	105
4x4	16	19	21	24	27	29	32	35	37	40
4x6	24	28	32	36	40	44	48	52	56	60
4x8	32	37	43	48	53	59	64	69	75	80
4x10	40	47	53	60	67	73	80	87	93	100
4x12	48	56	64	72	80	88	96	104	112	120
6x6	36	42	48	54	60	66	72	78	84	90
6x8	48	56	64	72	80	88	96	104	112	120
6x10	60	70	80	90	100	110	120	130	140	150
6x12	72	84	96	108	120	132	144	156	168	180
8x8	64	75	85	96	107	117	128	139	149	160
8x10	80	93	107	120	133	147	160	173	187	200
8x12	96	112	128	144	160	176	192	208	224	240
10x10	100	117	133	150	167	183	200	217	233	250
10x12	120	140	160	180	200	220	240	260	280	300
12x12	144	168	192	216	240	264	288	312	336	360
12x14	168	196	224	252	280	308	336	364	392	420
14x14	196	229	261	294	327	359	392	425	457	490

THE largest known deposit of iron ore is situated in Durango, Mexico, and yields sixty-five per cent of iron. This iron mountain has been recently purchased by C. P. Huntington, President of the Southern Pacific Railroad Co. The mine has been worked to a limited extent for over a hundred years. Mr. Huntington has in view the erection of the largest iron works in the world and the supplying of the markets of the Pacific Slope, Mexico, South America, Australia and other countries bordering on the Pacific Ocean. The railroad is already extended so as to tap this deposit and it will be but a short time before our market will be supplied from this source.





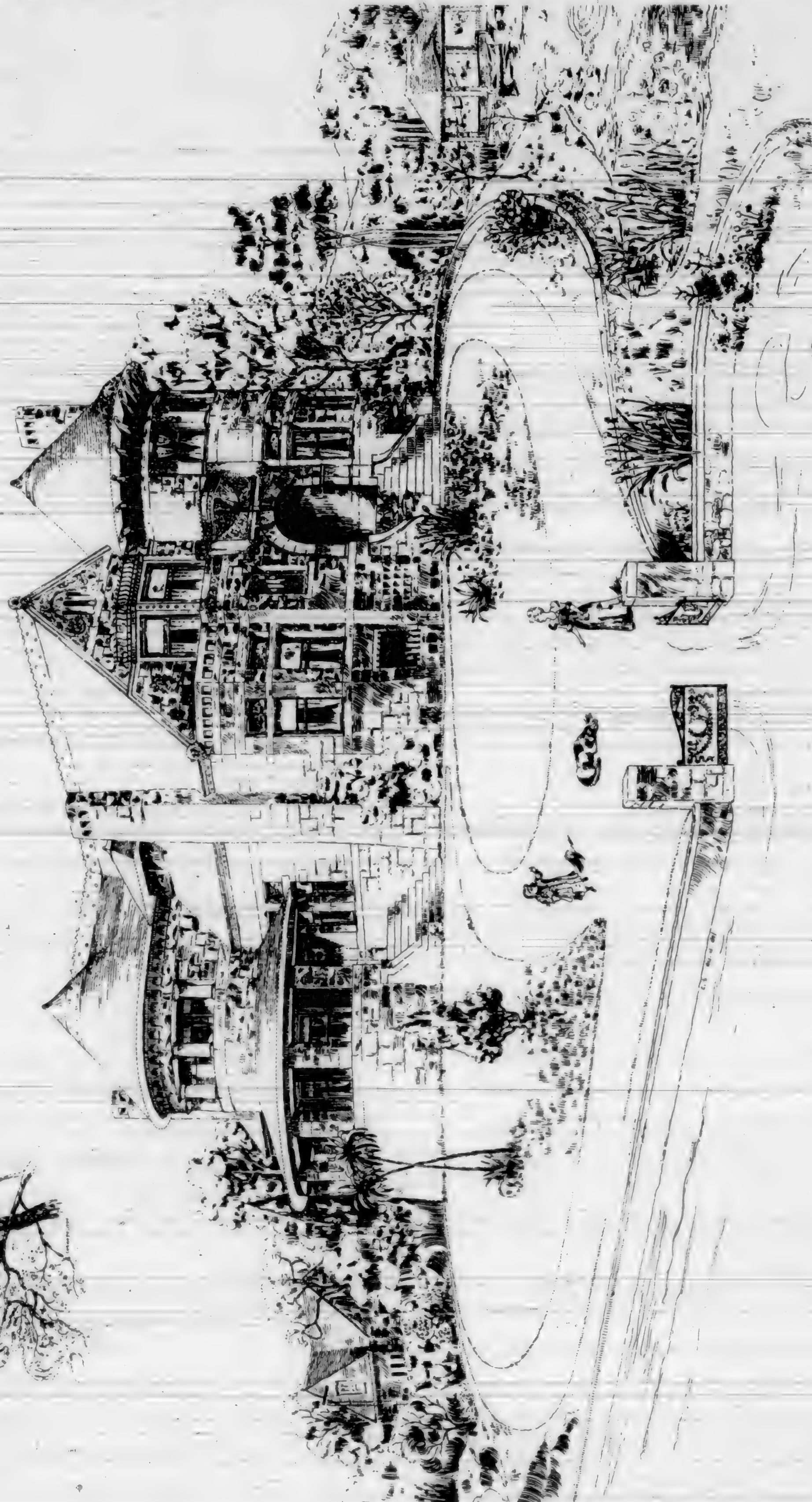
TRINITY-PRESBYTERIAN-CHURCH
CAMP & TWENTY-THIRD-ST-S-F
PERCY & HAMILTON-ARCHITECTS

BRITTON & REY PHOTO-LITH.

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CALIFORNIA ARCHITECTURAL PUBLISHING CO.
SAN FRANCISCO, CAL.

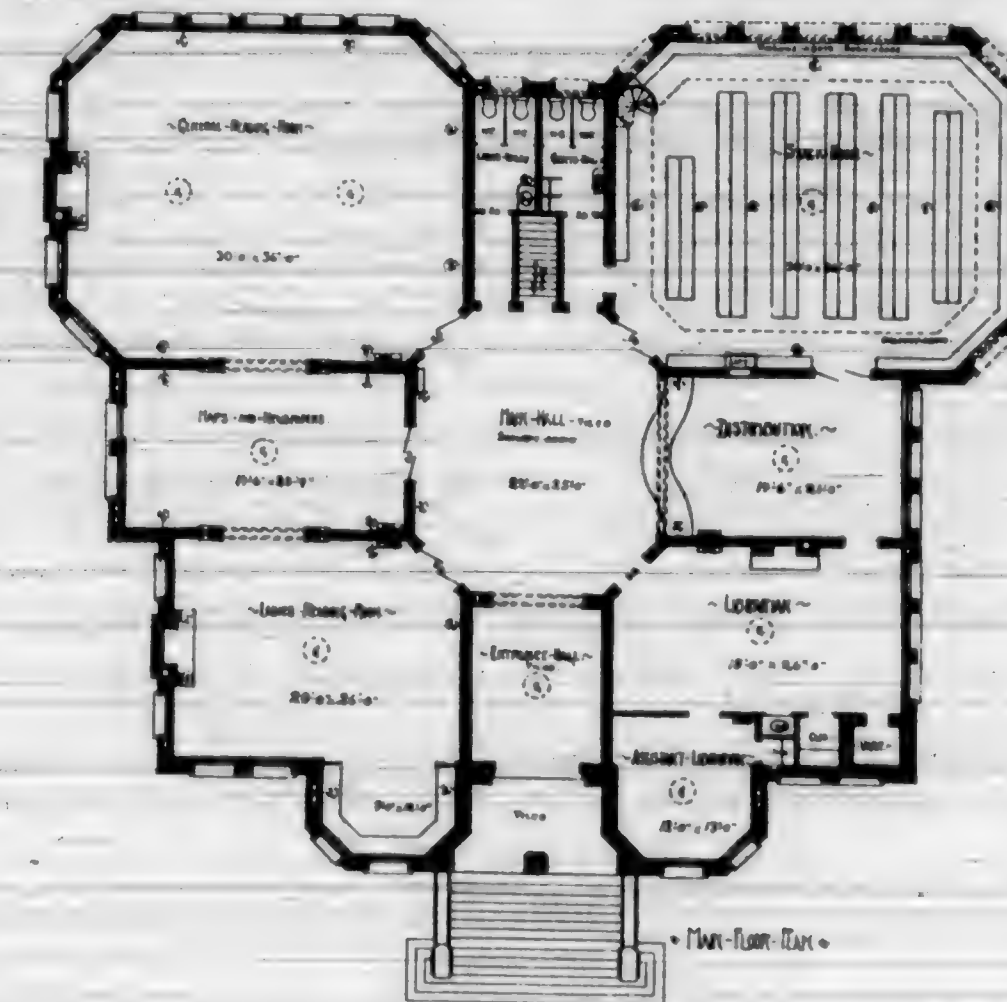


Tide-Wild.
Guthrie Swan - 92



BRITTON & REY PHOTO LITH.

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SAN FRANCISCO, CAL.



SKETCH-CLUB
SUBMITTED BY "STONE"
C. A. MEUSSDORFFER.

BRITTON & REY PHOTO LITH.

DESIGN FOR COUNTRY LIBRARY.

PUBLISHED BY THE
CALIFORNIA ARCHITECTURAL PUBLISHING CO.
SAN FRANCISCO, CAL.



NOVEMBER 1892

THE CALIFORNIA ARCHITECT AND BUILDING NEWS.

VOL. XIII. NO. II.

·BUILDINGS NEAR THE CATHEDRAL·MILAN·

·DRAWN BY·DANIEL·POLK·

To Miss R. E. Le Wright



BRITTON & REY PHOTO. LITH.

PUBLISHED BY THE
CALIFORNIA ARCHITECTURAL PUBLISHING CO.
SAN FRANCISCO, CAL.

NOTICE OF MEETINGS.

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

GEO. H. SANDERS, Pres.
H. T. BESTOR, Sec.

OLIVER EVERETT, Vice-Pres.
JOHN M. CURTIS, Treas.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at Academy of Sciences Building.

JOHN RICHARDS, Pres.
OTTO VON GELDERN, Sec.

L. WAGONER, Vice-Pres.
GEO. F. SCHILD, Treas.

THE regular meeting of the San Francisco Chapter of the American Institute of Architects was held the 11th inst. at their rooms, 408 California street.

The question inaugurating a more concentrated action of the members of the Chapter looking towards the advancement of architectural influence in this city and throughout the Coast, was discussed at length and laid over for future action.

Nominations of members were made for election at the next meeting to fill the offices for the ensuing year.

The proposition of purchasing some books offered to the Chapter was referred to the committee on "Students' Classes."

The committee on "Students' Classes," made the following report:

To the Officers and Members of the San Francisco Chapter of the A. I. A.

GENTLEMEN:—The committee to whom was referred the students' competitive designs for a Country Library makes the following report:—

No. 1. The design by C. A. Meussdorffer as being first in merit. The drawing shows study and good workmanship. The plan, in general, is cut up into too many small rooms. The entrance and vestibule leading directly into the library are well arranged.

No. 2. The design by Lewis Hobart comes next in merit. The plan partakes more of the character of a library. The vestibule has the main entrance directly into the library. The book cases and the ante-rooms are conveniently arranged. The exterior shows originality but some defects, viz.:—the window space is deficient for lighting the rooms. The lower portion would show an improvement if the water-table or string-course had been placed at the height of the cornice of vestibule and annexes so as to form a continuous tie.

No. 3. The design by Henry N. Meyers shows the plan as cut up into too many small rooms and the turn to the left after entering the vestibule in order to reach the library room detracts from its good features. The exterior shows study in the design and the lighting is good. The drawing is well executed.

No. 4. This design by Emil Blanckenburg shows a two-story building arranged for a street facade. The plan shows too many small rooms but the main entrance leads to the library which is commendable. The library is arranged in two stories, the upper story forming a balcony around the main room. The small stairs in the room leading to the balcony would be a convenient arrangement for the attendants, but the principal stairway which is placed outside the main hall seems unusually large for the rooms on the upper floor.

Your committee would suggest that the competitions of the "Students' Club" should be conducted under certain

defined rules, and that the instructions should be explicit and should state the limits of cost or size in some way, and if a church, the denomination or form of worship should be given in order that the Judges may have a clear idea of the motif before deciding on the merits of the different designs submitted.

All of which are respectfully submitted by

ALBERT PISSIS,
OLIVER EVERETT,
W. J. CUTHBERTSON,
H. T. BESTOR,
COMMITTEE.

The question of separating the Plasterers' contracts from the general contract was referred to a committee.

Upon request of the California Electrical Society, a committee was appointed to confer with a like committee from that society, with a view to the adoption of some system that will tend to improve the quality and character of electrical works in buildings, thereby reducing the fire risks.

The President of the Chapter, Mr. Geo. H. Sanders, presented a paper relating to architecture taking the lead in art work. This paper will be found in full on another page.

Mr. Sanders read the following paper on a system for the studies to be taken by the Class of Students, which was ordered printed and the members requested to give the subject the consideration necessary for the discussion set for the next meeting.

To the San Francisco Chapter A. I. A.

GENTLEMEN:—With reference to the recommendations which were adopted by the Chapter in regard to the awards of Bronze, Silver and Gold Medals to students, draughtsmen and assistants belonging to the Chapter classes, respectively, it seems necessary to adopt some additional regulations for the coming year to the end that a scheme of consistent studies and competitive exhibits should be arranged, so that the students may be enabled to follow the same in such order as shall enable the Chapter to award the said medals intelligently, and so as to be productive of the best results to the students themselves. To this end the following curriculum of studies, subjects of competition and text books are submitted for your approval.

FIRST.

FOR BRONZE MEDALS (TO STUDENTS).—TECHNIC PERIOD.

1.—TECHNIC. The best exhibit of practical geometry, arithmetic and algebra, (neatly executed examples inscribed in a book together with principles of surveying and leveling.

2.—ESTHETIC. Examples of the Greek and Roman Orders with diagrams showing entasis, volutes and mouldings.

3.—PHONETIC. Free-hand studies (flat) in charcoal, crayon or monochrome aqua-tint, together with sketches of natural foliage.

4.—Books to be studied, Pugin's Principles, Nicholson's Architecture, or similar elemental works.

SECOND.

FOR SILVER MEDALS (AWARDED TO DRAUGHTSMEN).—ESTHETIC PERIOD.

1.—TECHNIC. The best exhibit of applied mathematics as indicated in problems of strength of materials, systems of framing, girders, columns, piers, foundations, graphic strains, etc.

2.—ESTHETIC. Examples of the styles, specimens of detail (Gothic and Classic) together with other styles and

national peculiarities of style. Free-hand drawings from models, pen and ink copies of drawings, and studies in tint and line. Competition designs of architectural detail. Doors, windows, chimneys, dormers, arcades, fountains, niches, statues and architectural ornaments, cottages, lodges and summer houses.

(C) PHONETIC. Modeling, carving (copies). Studies of foliage (original).

(D) BOOKS. Guilt, Seven Lamps and other similar books.

THIRD.

(A) GOLD MEDAL. (ASSISTANTS). PHONETIC PERIOD.

(1) TECHNIC. Details of construction in stone, marble, brick, iron, wood and metal.

(2) AESTHETIC. Original designs for ornamental work in various styles, in monochrome, polychrome and pen and ink. Competition designs for halls, chambers, residences, hotels and institutions.

(C) PHONETIC. Original models, statuary, original carving, metal work, essays, etc.

(D) BOOKS. Fergusson, Stones of Venice, Violet le Duc, Discourses and other books of that character.

The above is suggested as a statement of the average result to be placed within the reach of every student of a five years' course of study, with the average opportunities offered in most offices of fair practice, and it is thought would have the effect of directing the students' attention to works within their capacity, and commensurate with the experience attained by them at the respective periods above indicated. It would seem that such a scheme would economize effort by avoiding ambitious attempts beyond their power at given periods, and would have the effect of leading them, step by step, into the higher realms of architectural design, in a systematic way, instead of fostering vanity at the expense of their intellect and understanding, by premature development on wrong lines, at the same time affording to each student absolute freedom of action, from first to last.

GEO. H. SANDERS.



THE FORTNIGHTLY REVIEW for October contains an article on the "Trend of Trade Unionism" by H. W. Massingham, a chapter on "Raphael" by Walter Pater, and other articles on various subjects.

LIPPINCOTT'S for November has some interesting chapters on "Form in Driving," "Men of the Day," besides the stories and reviews.

DIE RENAISSANCE-ARCHITEKTUR ITALIENS, Aufzisse, Durchschnitte und Details in 135 lithographirten tafeln. Aufgenommen und mit Erläuterndem Texte Herausgegeben von Fr. Peyer Im Hof, Architekt. Erste Sammlung, Leipzig 1870, Verlag Von E. A. Seemann.

The text of this work is in German, and is illustrated with 135 finely etched line engravings, printed on heavy paper, of the most noted examples of Italian Renaissance. It is a

work that when seen will be sure of a purchaser, and we know of no other book so fully worth the price to the student of Architecture as this one. Size 6x9 inches and 3/4 of an inch in thickness. Price \$3.00. For sale by Messrs. Osborn & Alexander, 401 Market street, San Francisco, Cal.

The following books have been received too late for full reviews in this issue, but we shall give more extended notices in future numbers.

"A Manual of Industrial Drawing for Carpenters," William T. Comstock, N. Y., publisher.

"The Steam Engine," "The Drainage of Habitable Buildings," "Electric Lighting Specifications," "Electrical Dictionary," All of which are for sale by Messrs. Osborn & Alexander, 401 Market Street, San Francisco, Cal. They will also have for sale next week an English edition of "Vignola."



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

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

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

THE design "IDLE WILD" is a sketch by Mr. Clarkson Swain for a residence to be erected in the suburbs of this city.

THE illustration of a Library for a country town shows the design submitted by Mr. C. A. Meussdorffer which received the first mention in the recent competition of the Sketch Club of the San Francisco Chapter A. I. A., the report of which will be found on another page.

THE design for Trinity Presbyterian Church recently erected on the corner of Twenty-Third and Capp streets, is by Messrs. Percy & Hamilton, Architects. The basement is built of buff-colored cement bricks with sand stone trimmings; and above this the building is constructed of frame work, the exterior being shingled. The roof timbers are finished to show the construction. The basement contains the Sunday school rooms and parlors, and the auditorium is over them.

THE sketch of the buildings near the Cathedral in Milan is by Mr. Daniel Polk. The view is taken from the south-east and shows one of the purest examples of Italian Renaissance outside of Florence.

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.

A MECHANICS' LIEN.

WE are indebted to the *Sacramento Weekly Union* for the following:

The decision of the Supreme Court in the case of George Slight vs. G. S. Patton et al., respondents, was filed in Deputy Clerk Govan's office yesterday.

The action was brought in Tulare County to enforce a mechanics' lien. A general demurrer to the complaint was sustained, and plaintiff having declined to amend his complaint, judgment was rendered in favor of defendants. The plaintiff appealed from the judgment-roll and contended that the court erred in sustaining the demurrer to his complaint.

The complaint shows that plaintiff was a sub-contractor, with Thompson and Gamble, who were the original contractors with the defendant, Patton, to build and paint for the latter, on his land, a house and barn, and certain other structures; to furnish all the materials therefor for the gross sum of \$5,775, payable on the completion and acceptance of said buildings and structures or within ten days thereafter; that no part of this original contract price was made payable thirty-five days after the completion of the contract; that the work was commenced by the original contractors on or about the 20th day of July, 1889, and completed November 20, 1889; and that neither said original contract, nor any note or memorandum thereof, was ever filed in the office of the Recorder of the county in which said structures were to be built.

Plaintiff further averred that, after the original contractors had commenced the erection of said buildings (on or about August 30, 1889,) plaintiff entered into a contract with them whereby it was agreed that he should do all the painting of said buildings and furnish all the materials therefor, according to the plans and specifications, for the sum of \$541.70, to be paid within a reasonable time after the completion of such painting; and that plaintiff duly performed his contract with the original contractors to paint said buildings, and completed the same on the 20th day of November, 1889, on which day the buildings were completed.

The complaint then proceeds to state the filing and recording of plaintiff's notice of lien within thirty days after the completion of said buildings, a copy of which notice is exhibited as a part of the complaint.

The Supreme Court, in considering the objections to the complaint, goes into a particular statement of the portions of it alleged to be insufficient, at great length, and they reversed the judgment and remanded the cause, with instructions to the lower court to overrule the demurrer and proceed in the cause.

CONTRACTORS AS TRESPASSERS.—By exceeding the conditions of an agreement permitting building contractors in erecting a building on an adjoining lot, to enter a person's premises to shore it up, the contractors thereby become trespassers. The damages in such case include loss of profits sustained on account of the contractors' unlawful acts.

Capel v. Lyons, City Court of N. Y., 20 N. Y. Sup. 49.

LIABILITY OF EMPLOYER OF CONTRACTOR.—Where a person owning a lot adjoining another, contracts with a blaster to excavate rock on his premises that forms part of the stratum on which the adjoining house rests, and cannot be blasted without injury to that building, he is not excused by that contract, from responsibility for injuries to that house resulting from blasting the rock, since the act itself, and not the manner of doing it, is wrongful, and he may be enjoined from continuing the excavation in that manner.

Brennan v. Schreiner, Superior Court of New York, 20 N. Y. Sup. 130, 87.

LIEN FOR BUILDING ERECTED BY PURCHASER UNDER CONTRACT.—Where a land-owner entered into contract for the sale of property which was afterwards forfeited for the default of the purchaser, and in the meantime the latter had gone into possession, and erected a house on the land, certain parties furnishing to him materials and labor therefor, on account of which they sought to subject the estate of the land-owner to liens, the contract for the sale of the land making no provision for the construction of buildings except (in substance) that all improvements that might be made should become the property of the vendor, this last mentioned clause added nothing to the legal effect of the contract and the case came under the provision of the Minnesota Statute subjecting the estate of a land-owner to lien for improvements made by others with his knowledge unless he shall give the notice of his want of consent as therein prescribed, which also casts upon the land-owner the burden of excusing his default to comply with the law.

Wheaton v. Berg, Supreme Court of Minnesota, 52 N. W. Rep. 926, 170.

NO LIEN FOR MATERIALS FURNISHED CONTRACTOR.—The statute of Washington providing that every person furnishing materials to be used in the construction of any building shall have a lien therefor, whether furnished at the instance of the owner of the building or his agent, a mechanic's lien cannot be maintained against the owner of a building for materials furnished in its construction that were furnished the contractor in his own name, when the material man had no knowledge of any contract relations existing between the contractor and the owner, nor of the particular building to be constructed, but intended to hold whatever building the materials used in, as security.

Whittier v. Puget Sound Loan, Trust and Banking Co., Supreme Court of Washington, 30 Pac. Rep. 1094, 104.

PAYMENTS WITHOUT CONSENT OF SURETY INVALIDATE CONTRACTOR'S BOND.—A contractor entered into a written agreement with the owner to furnish all materials, and erect for him a building in accordance with certain plans and specifications, and deliver the same free from all liens for labor or material; and the contract further provided that the contractor was to receive therefor a stipulated sum, payable as the work progressed on the estimates of the architect, less 15 per cent, which was to be retained by the owner until the expiration of 90 days from the completion of the work, and then was payable only in the event that there were no liens upon the property for labor or materials supplied through the contractor. A bond was given by the contractor, with sureties, to complete the building according to the contract, and turn the same over to the owner discharged of all liens. Payments in excess of the 85 per cent provided by the contract, were made to the contractor without the consent of the sureties, during the progress of the work, without estimates of the architect. These payments excused the sureties from liability, as it deprived them of the protection of the reserved 15 per cent to which they were entitled.

Bell v. Paul, Supreme Court of Nebraska, 52 N. E. Rep. 1110, 196.

BUSINESS MOSAICS.

The December Number of the CALIFORNIA ARCHITECT AND BUILDING NEWS will be an extra hospital edition. Price fifty cents and free to new subscribers for 1893.

The Hercules Gas or Gasoline Engines have so many excellent qualities that they have given satisfaction wherever used. One of these machines can be made to run an electric plant for lighting shops or factories and as a cheap way of applying power for a great variety of uses. Messrs. Palmer & Rey of this city are the agents.

The California Architect AND BUILDING NEWS is desirous of having active agents in every city and town. Those wishing to act for us will please address this office.

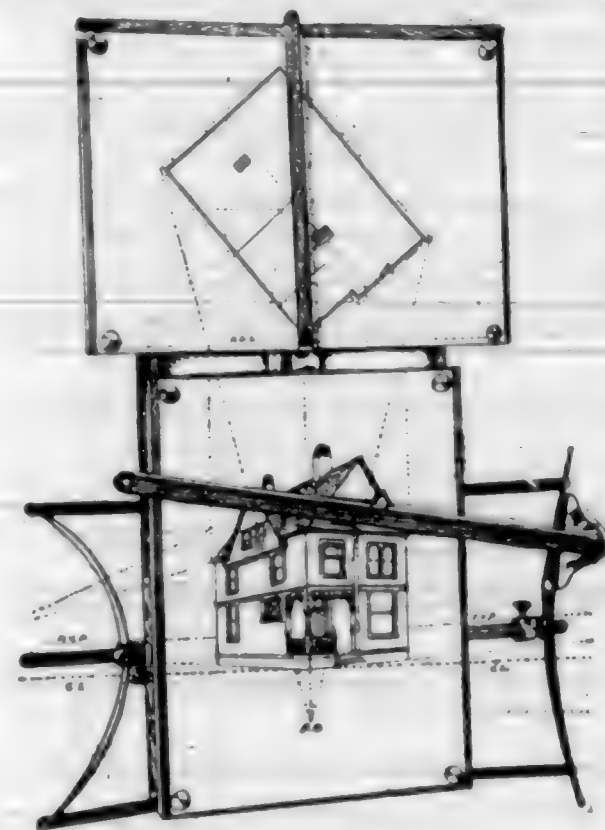
The new catalogue of Messrs. Gladding, McBean & Co., of 1358-1360 Market street, shows some new designs for ornamental terra-cotta tiles, and their improved hollow tile partitions and arches. This firm is one of the few that has kept ahead of the times and was prepared to execute new designs from Architectural drawings.

The Graphite productions of the Jos. Dixon Crucible Co. have steadily advanced and are now far ahead of all others in that line. The manufactures of this company have withstood the test of time and gained in popularity wherever used.

Their list of preparations comprises more than seventy-four articles prepared for special uses. A small can of graphite grease may be readily handled and is of great use to tip on the ends of screws as it lubricates them so that they can be easily set up, and prevents them from rusting; consequently they may be withdrawn without tearing the heads. Dixon's Graphite Paint has no superior for the preservation of metal work where a dark color is permissible.

Perspective drawings and the appliances for simplifying the making of them have been the subject of much thought. Many methods have been tried, but the machine herein shown seems to include so many advantages to the draughtsman that we give a detailed description of its construction.

The frame is of wood and carries metal arms upon which slide grooved guides. To these guides are fastened steel springs which can be set to any desired radius by means of a gauge on the center arms. The center of said curve or



radius will be the vanishing points of the perspective to be drawn. By placing a common T square with the head on the outside of the curve or arc, with the blade across the board, it will be seen that when the blade stands horizontally across the board, the true horizon lines will appear, while if moved above or below this point, a line drawn along the blade will be at an angle to the horizontal, but always directly toward the center of radius or vanishing points. (See fig. 1 and 2.) These curves can be set so the centers will be any desired distance from 100 to 10,000 ft. from center of board or picture plane line. The point of sight is obtained in the same manner as horizontal vanishing points, (see fig. 4) and by means of a pin connection with point of sight rule

and T square at the picture plane line any point on the plan can be transferred to the perspective without drawing any lines toward the point of sight or taking any measurements at the picture plane line. By placing the hole in the end of the T square over the pin in the point of sight rule, and the head of the T against the bottom of the board (as in fig. 3) and moving the square to the left, the point of sight rule will move with it, and by stopping at any desired point on the plan, the corresponding point on the perspective will be shown at the edge of the T square, which when used in this connection always remains perpendicular. While the point of sight rule always points toward the center of the arc which carries it, (See fig. 4.) or toward the point of sight. By this means the points on the plan are transferred to the perspective direct and saves a multitude of lines, erasures and measurements, thereby saving much time in making true perspectives.

The Kieckhefer Elevators are gaining in favor with those who desire a superior article in this line. Architects and persons interested and who have not yet decided, will, in about two weeks, be able to inspect the Hydraulic High-Speed Elevator having all the latest improvements and which is being put into the new "Examiner Building" in course of erection on Mission street, near Third street in this city. When carefully examined its adoption is sure to follow.

Mr. Chas. A. Hare, the Agent for the Celebrated Gardner Sash Balance, is having printed a handy reference card containing the table for lumber measure shown on page 126.

These cards may be had free upon application at Pier 5, Steuart street, San Francisco.

The superiority of their goods is so well known, that when the J. L. Mott Iron Works is mentioned, no one challenges the quality.

J. L. Cahill, Painter and Decorator has removed from 932 Mission street to 107 Sixth street near Mission, where he has increased facilities for his business which had outgrown the old stand.

Sheet metal work for cornices, ornaments, roofs, etc., from the establishment of Wm. Cronan, 1213-1215 Market street, stand unrivaled. The best approved machines are here used for bending and joining the ornamental projecting finish on the exteriors of buildings.

TENDERS TO BE RECEIVED.

Treasury Department, Office Supervising Architect, Washington, D. C., November 3rd, 1892. Sealed proposals will be received at this office until 2 o'clock p. m. on the 1st day of December, 1892, and opened immediately thereafter, for all the labor and materials required for the trench excavation, foundations, cut stone and brick work of the basement and area walls, basement columns, first floor beams, etc., for the U. S. Post Office Building at Burlington, Iowa, in accordance with drawings and specification, copies of which may be had on application at this office or the office of the Superintendent at Burlington, Iowa.

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 Trench Excavation, Foundations, Cut Stone and Brick Work of Basement and Area Walls, etc., for the U. S. Post Office Building at Burlington, Iowa," and addressed to,

W. J. EDBROOKE,
Supervising Architect.

Treasury Department, Office Supervising Architect, Washington, D. C., November 3rd, 1892. Sealed Proposals will be received at this office until 2 o'clock p. m. on the 30th day of November, 1892, and opened immediately thereafter, for all the labor and materials required for the trench excavation, foundations, cut stone work and brick work, iron and wood floor, ceiling and roof construction, roof covering, etc., for the U. S. Post Office Building at Fremont, Nebraska, in accordance with the drawings and specification, copies of which may be had on application at this office or the office of the Superintendent at Fremont, Nebraska.

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 Trench Excavation, Foundations, Cut Stone and Brick Work, Iron and Wood Floor, Ceiling and Roof Construction, Roof Covering, etc., for the U. S. Post Office Building at Fremont, Nebraska," and addressed to,

W. J. EDBROOKE,
Supervising Architect.

CITY BUILDING NEWS.

Adair near Howard. Two-story frame; owner, C. B. Randall; contractor, C. B. Randall; cost, \$3,400; signed, Oct. 25; filed, Oct. 26; payments, \$550; roof on; \$850, brown mortar on; \$650, completed; \$650, 35 days.

Bay near Kearney. One-story frame, two stores; owner, Geo. Levison; architect, P. R. Schmidt; contractor, Jas. Cochran; cost, \$1,900; signed, Oct. 23; filed, Nov. 2; payments, \$500, roof on inside ready for plaster; \$500, plastered; \$100, completed; \$500, 35 days.

Beaver near Castro. One-story frame; owner, Sylvester Doan; contractor, W. W. Rednall; cost, \$1,077; signed, Oct. 5; filed, Oct. 6; payments, \$405, enclosed; \$194, brown mortar on; \$191, completed; \$191, 35 days.

Bryant near Butte. Alterations and additions; owner, Mary Fitzgerald; architect, M. J. Welsh; contractor, Arthur & Lafayette; cost, \$1,470; signed, Oct. 7; filed, Oct. 7; payments, \$367.50, frame up; \$367.50, brown mortar on; \$367.50, completed; \$367.50, 35 days.

Bush near Broderick. To build; owner, Nicholas Hattin; architect, Harold D. Mitchell; contractor, John Strand; cost, \$3,100; signed, Oct. 7; filed, Oct. 15; payments, \$900, frame up; \$900, house mortar on; \$900, standing finish on; \$25, completed; \$775, 35 days.

Bush near Powell. To build; owner, Mary F. Rye; architect, W. H. Lillie; contractor, Jos. Kennedy; cost, \$18,800; signed, Nov. 2; filed, Nov. 3; payments, \$1,500, old building torn down and foundation of new one in; \$2,500, frame up; \$2,500, enclosed; \$2,500, brown mortar on; \$2,500, standing finish on; \$2,500, completed; \$1,701, 35 days.

Bush near Powell. Grading; owner, Thos. Madigan; contractors, Helyea & Rogers; cost, \$2,100; signed, Sept. 29; filed, Oct. 12; payments, \$2,100, completed.

Butte and Minnesota. Two-story flat; owner, Patrick Cronan; architect, W. C. Dickerson; contractor, Miron & Gardner; cost, \$3,835; signed, Oct. 10; filed, Oct. 11; payments, \$950, framed; \$950, roof and brown mortar on; \$950, completed; \$950, 35 days.

Butte near Mississippi. To build; owner, John Parnell; contractors, Selter & Stevens; cost, \$1,290; signed, Oct. 18; filed, Oct. 20; payments, \$320, enclosed; \$320, brown mortar on; \$320, completed; \$320, 35 days.

California and Stockton. Lathing and plastering; owner, J. J. Wyatt; architect, John Cash; contractor, Joseph Morris; cost, \$1,200; signed, Oct. 27; filed, Oct. 28; payments, \$300, brown mortar on; \$100, cornice stuck; \$200, one house finished; \$150, 2d house finished; \$150, completed; \$300, 35 days.

Clay and Powell. Three-story frame; owner, Wm. Daugener; architects, Kenitzer & Kollofath; contractors, Schutt & Kreeker; cost, \$12,000; signed, Nov. 1; filed, Nov. 3; payments, \$300, completed; \$3,000, 35 days.

Clay near Powell. Alterations and additions; owner, Glanville Tosecan; contractor, Luigi Francini; cost, \$2,000; signed, Nov. 2; filed, Nov. 3; payments, \$375, 1st floor joists and studding set; \$375, completed; \$375, brown mortar on; \$375, completed; \$375, 35 days.

Clay and Webster. Grading and filling in; owner, Dr. L. C. Lane; architects, Wright & Sanders; contractor, J. G. Conroy; cost, \$3,000; signed, Oct. 15; filed, Oct. 18; payments, 1st Saturday of each month 75 per cent. as work progresses; balance, 35 days.

Clayton near Oak. Two-story frame; owner, Ferdinand Frowman; contractors, Soule & Hoadley; cost, \$6,000; signed, Oct. 17; filed, Oct. 18; payments, \$1,125, frame up; \$1,125, enclosed; \$1,125, plastered; \$1,125, completed; \$1,125, 35 days.

Clement near 3rd Ave. Two-story frame; owner, F. T. Newbury; architects, Colley & Lemme; contractors, Constable & Hamilton; cost, \$3,047; signed, Sept. 30; filed, Oct. 3; payments, \$945, enclosed; \$945, plastered; \$945, accepted; \$945, 35 days.

Clementina near 3rd. Frame building; owner, R. M. de Larronda; architect, J. Ahlback; contractor, Henry Munster; cost, \$3,000; signed, Oct. 11; filed, Oct. 12; payments, \$1,250, enclosed; \$1,250, brown mortar on; \$1,250, completed.

Columbia near 26th. Painting exterior; owner, Board of Education; architect, C. I. Havens; contractor, Thos. Learned; cost, \$190; signed, Oct. 19; filed, Oct. 20; payments, \$190, completed.

Davis and Golden Gate Ave. Frame building of eight rooms; owner, Andrew J. Talbot; architects, B. McDougal & Son; contractor, Jno. H. McKay; cost, \$4,165; signed, Oct. 14; filed, Oct. 15; payments, \$500, 1st tier of joists in; \$800, enclosed and rough plumbing in; \$800, brown mortar on; \$1,023.75, plastered and completed; \$1,041.25, 35 days.

Dolores near 16th. Two-story frame; owner, L. J. Ruffino; architect, C. I. Devlin; contractor, T. R. Basset; cost, \$3,762; signed, Oct. 20; filed, Oct. 20; payments, \$550, frame up; \$600, ready for lathing; \$800, extra mill work complete; \$800, ready for paint; \$870, completed; \$870, 35 days.

Dorland near Church. Two-story frame; owner, J. B. Knudson; contractor, J. L. Binet; cost, \$1,090; signed, Oct. 20; filed, Oct. 20; payments, \$400, enclosed; \$115, completed; \$271, 35 days.

Douglas St. One-story cottage; owner, Mary Wall; contractor, Wm. & H. Plant; cost, \$1,160; signed, Oct. 13; filed, Oct. 18; payments, \$600, frame up; \$500, carpenter work done; \$160, receipted bills shown.

Eighteenth near Douglas. Three-story frame; owner, Peter McCarthy; contractor, F. V. Acker; cost, \$9,500; signed, Oct. 12; filed, Oct. 12; payments, \$1,200, frame up; \$1,200, rustic and roof on; \$1,200, floors laid and inside studding up; \$1,000, brown mortar on; \$1,000, plastered; \$1,400, completed; \$2,500, 35 days.

Eleventh Ave. near Pt. Lobos. Cottage; owner, James Moran; contractor, T. C. Cochran; cost, \$1,080; signed, Oct. 3; filed, Oct. 10; payments, \$500, brown mortar on; \$310, completed; \$270, 35 days.

Fifteenth near Howard. Two-story and flats; owner, Christian H. Werner; architect, Julius E. Kraft; contractors, Schmidt & Gensler; cost, \$3,250; signed, Oct. 13; filed, Oct. 15; payments, \$800, rustic and roof sheathed; \$825, brown mortar on; \$800, completed; \$825, 35 days.

Fremont and Bryant. Frame stable; owner, Oregon Improvement Co.; contractor, Chas. W. Kinsman; cost, \$1,950; signed, Oct. 24; filed, Oct. 27; payments, 75 per cent. on completion; balance, 35 days.

Geary and Octavia. Painting, varnishing, etc.; owner, R. M. Black; architect, Wm. Curlett; contractor, Geo. W. Cahon; cost, \$2,575; signed, Sept. 21; filed, Sept. 30; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Golden Gate Ave. To build; owner, F. Hartmann; architects, Saffield & Kohlberg; contractor, H. Rohling; cost, \$1,300; signed, Oct. 8; filed, Oct. 13; payments, \$500, ready for plasterer; \$450, completed; \$450, 35 days.

Golden Gate Park. Concrete bridge; owners, Park Commissioners; architect, A. Page Brown; contractor, Gray Bros. Artificial Stone Paving Co.; cost, \$7,000; signed, Oct. 8; filed, Oct. 10; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Golden Gate Ave. near Hyde. Painting Humboldt Primary School; owner, Board of Education; architect, C. I. Havens; contractor, Geo. Gottung; cost, \$200; signed, Oct. 17; filed, Oct. 19; payments, \$200, completed.

Greenwich near Jones. Painting exterior; owner, Board of Education; architect, C. I. Havens; contractor, Thos. Learned; cost, \$195; signed, Oct. 19; filed, Oct. 20; payments, \$195, completed.

Haight near Schrader. Two-story frame; owner, H. F. Krebo; contractor, Brooklyn Planing Mill Co.; cost, \$3,550; signed, Oct. 13; filed, Oct. 13; payments, \$710, frame up; \$710, roof shingled; \$710, brown mortar on; \$710, painted and doors hung; \$710, accepted.

Hampshire near 22d. Alterations and additions; owner, Caroline Blumenthal; contractor, T. F. Mitchell; cost, \$1,800; signed, Sept. 28; filed, Sept. 30; payments, \$450, house raised and lot graded; \$450, brown mortar on; \$450, completed; \$450, 35 days.

Harrison and Juniper. Three-story frame; owner, Wm. Offerman; architect, Fred. P. Hahn; contractor, Wm. Twiggler; cost, \$7,830; signed, Oct. 3; filed, Oct. 4; payments, \$1,400, enclosed; \$1,400, brown mortar on; \$1,400, plastered; \$1,072.50, completed; \$1,957.50, 35 days.

Howard and 4th. Underpinning and concrete work; owner, Annie N. Farrell; architects, Shea & Shea; contractor, Gray Bros. Art. Stone Paving Co.; cost, \$300, per cubic foot; signed, Oct. 20; filed, Oct. 27; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Hyde and Vallejo. To build; owner, W. K. Bush; architects, Martineau & Coffey; contractors, Patterson & Drew; cost, \$1,300; signed, Oct. 12; filed, Oct. 22; payments, \$1,000, enclosed; \$1,000, outside finish and brown mortar on; \$1,200, completed; \$1,100, 35 days.

Jackson near Lyon. Concrete bulkhead, etc.; owner, Mrs. Anna Meade; architect, J. C. Newson; contractor, H. Stettin; cost, \$1,550; signed, Oct. 13; filed, Oct. 18; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Jones near Pine. Three-story frame; owner, E. E. Staples; architect, F. B. Wood; contractor, J. F. Logan; cost, \$8,033; signed, Oct. 14; filed, Oct. 14; payments, 75 per cent. as work progresses; balance, 35 days.

Jones near Sacramento. Two-story frame; owner, Mary Spillane; architect, F. B. Wood; contractor, John T. Grant; cost, \$1,100; signed, Oct. 5; filed, Oct. 6; payments, \$1,025, frame up and roof on; \$1,025, brown mortar on, sashes hung and glazed; \$1,025, completed; \$1,025, 35 days.

Karl near Cole. To build; owners, Emma M. & J. L. Callison; cost, \$1,000; signed, Oct. 12; filed, Oct. 13; payments, \$1,000, frame up; \$1,000, enclosed and brown mortar on; \$1,400, completed.

La Fayette near Mission. To build; owner, Wm. Hughes; contractor, Jas. McLean; cost, \$1,450; signed, Oct. 22; filed, Nov. 3; payments, \$300, brick foundations and rear yard patches and steps in; \$375, new front on; \$375, completed; \$300, 35 days.

Lagomare and Plymouth. Two-story frame; owners, Mary Lane and Delia Hall; contractors, Morrison & Cook; cost, \$1,425; signed, Oct. 22; filed, Nov. 3; payments, \$75, rustic and roof boards on; \$150, brown mortar on; \$500, completed; \$500, 35 days.

Market near Second. Stone fixtures; owner, Palace Hardware Co.; architects, Wood & Lovell; contractors, Anderson Bros.; cost, \$1,400; signed, Oct. 10; filed, Oct. 11; payments, \$475, 1/2 work complete; \$475, completed; \$475, 35 days.

Market and Hayes. Store fitting; owner, J. Kemp; architect, Wm. H. Armitage; contractors, Robinson & Gillespie; cost, \$2,100; signed, Aug. 8; filed, Nov. 2; payments, material delivered upon ground 75 per cent. of value; 25 per cent. 35 days.

Market near Powell. Painting, varnishing, etc.; owner, Annie Donahoe; architect, C. I. Havens; contractors, Fraser & Keefe; cost, \$5,895; signed, Oct. 21; filed, Nov. 2; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

McAllister near Franklin. Painting exterior; owner, Board of Education; architect, C. I. Havens; contractor, Thos. Learned; cost, \$200; signed, Oct. 19; filed, Oct. 20; payments, \$200, completed.

McAllister near Van Ness. Carpenter work, painting, etc.; owner, M. E. Ulmer; architects, Stone & Munson; contractor, Geo. Condon; cost, \$1,892; signed, Oct. 12; filed, Oct. 13; payments, \$917.25, frame up; \$917.25, enclosed; \$917.25, plastered; \$917.25, completed; \$1,223, 35 days.

McAllister near Van Ness. Alterations and additions; owner, Fred Haussler; architect, H. Geiffuss; contractor, F. W. Kern; cost, \$2,400; signed, Oct. 25; filed, Oct. 28; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Mission near 16th. Painting exterior; owner, Board of Education; architect, C. I. Havens; contractor, Thos. Learned; signed, Oct. 19; filed, Oct. 20; payments, \$190, completed.

Noe near Ridley. Two-story frame; owner, Mrs. J. B. Jardine; contractor, H. R. Schmuckert; cost, \$9,255; signed, Oct. 6; filed, Oct. 7; payments, \$900, frame up; \$800, brown mortar on; \$900, plastered; \$800, completed; \$800, 35 days.

O'Farrell near Hyde. Alterations and additions; owner, Wm. Schnudtz; architect, C. M. Rousseau; contractor, Andrew Christensen; cost, \$2,100; signed, Oct. 26; filed, Oct. 27; payments, \$400, framed; \$800, brown coated; \$900, completed; \$900, 35 days.

Old San Jose Ave. near 26th. Two-stories and flats; owner, Geo. Raddock; architect, J. E. Kennan; contractors, Peterson & Olson; cost, \$3,350; signed, Oct. 10; filed, Oct. 16; payments, \$1,337.50, frame up; \$1,337.50, brown mortar on; \$1,337.50, completed; \$1,337.50, 35 days.

Oregon and Drumm. Plumbing, gas-fitting, etc.; owner, Jas. G. Fair; architect, H. A. Schuler; contractor, Jas. E. Britt; cost, \$1,785; signed, Oct. 7; filed, Oct. 15; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Pacific near Broderick. Lathing and plastering; owner, David Perry; architect, C. I. Havens; contractor, J. R. Tobin; cost, \$1,600; signed, Oct. 7; filed, Oct. 10; payments, \$800, plastered; \$400, completed; \$400, 35 days.

Pacific near Central Ave. Two-story frame with basement; owner, E. T. Shep-
pards architect; J. C. Newson; contractor, Fred Kronick; cost, \$2,353; signed,
Nov. 1; filed, Nov. 1; payments, \$81.25, frame up; \$81.25, brown mortar on;
\$81.25, completed; \$81.25, 35 days.

Park Road near Park Hill Ave. Laundry machinery; owner, Sister M. O'Brien;
architects, Shea & Shea; contractor, Troy Laundry Machinery Co.; cost,
\$1,855; signed, Oct. 19; filed, Oct. 27; payments, \$1.57; machinery set in position;
balance, 35 days.

Pine near Franklin. Sewering, plumbing, etc.; owner, Gustav Sutter architect,
Julius E. Kraft; contractor, Duffley Bros; cost, \$2,655; signed, Oct. 11; filed,
Oct. 17; payments, \$900, sewer and rough plumbing in; \$900, completed; \$355,
35 days.

Pine near Franklin. Two-story building with basement and attic; owner,
Gustav Sutter architect, Julius Kraft; contractor, W. W. Ackerson; cost,
\$1,000; signed, Oct. 11; filed, Oct. 17; payments, \$2.00, frame up and sheathed
and bulkheads built; \$2,500, enclosed and brown mortar on; \$2,500, interior
finished and plastered; \$2,500, interior ready for painting; \$2,500, completed;
\$3,570, 35 days.

Pine near Hyde. Alterations and additions; owner, Peter Jorgensen; architect,
W. H. Little; contractor, J. C. Rogers; cost, \$5,250; signed, Oct. 1; filed, Oct. 1;
payments, \$1,025, old building repaired and frame of new building up;
\$1,500, frame of stable up and brown mortar on; \$1,600, completed; \$1,300, 35
days.

Point Lobos and 8th Ave. Frame building; owner, Patrick O'Donnell; contrac-
tors, Huber & O'Brien; cost, \$2,100; signed, Oct. 17; filed, Oct. 21; payments
\$900, enclosed; \$900, brown mortar on; \$900, plastered; \$900, completed.

Post near Stockton. Alterations and additions; owner, M. J. Wilson; architect,
Clinton Day; contractor, John McCarthy; cost, \$51,783; signed, Oct. 25; filed,
Oct. 25; payments, \$4,500, 24 story beams laid; \$5,500, roof framed; \$5,500,
brown mortar on; \$7,500, completed; \$7,500, 35 days.

Powell near Bush. Three-story frame; owner, John Scott; contractor, Richard
Felix; cost, \$5,450; signed, Oct. 27; filed, Oct. 28; payments, \$1,000, enclosed;
\$1,000, brown mortar on and outside finish done; \$1,500, completed; \$1,500, 35
days.

Sacramento near Cherry. One-story frame; owner, Mary Cavanagh; archi-
tect, Wm. H. Armitage; contractor, W. H. Mead; cost, \$1,700; signed, Sept.
27; filed, Sept. 30; payments, \$125, frame up; \$125, brown mortar on; \$125,
completed; \$125, 35 days.

Sacramento, Nos. 1450, 1622, 1624. Alterations and additions; owner, Julien
Smith architect, J. Marquis; contractor, Robert Currie; cost, \$5,000; signed,
Nov. 1; filed, Nov. 2; payments, \$900, new front, except porches, finished;
\$900, brown mortar on and sewers connected; \$900, completed; \$900, 35 days.

Sadowa near Plymouth. Cottage; owner, Mrs. May McKenzie; contractor, H.
Lahousse; cost, \$1,100; signed, Oct. 5; filed, Oct. 6; payments, \$100, roof on;
\$100, completed; \$100, 35 days.

Seventeenth near Church. Alterations and additions; owner, Bernard Trezzini;
architect, A. J. Barnett; contractor, A. G. Fisher; cost, \$1,000; signed, Oct. 1;
filed, Oct. 1; payments, \$100, roof boards on; \$100, brown mortar on and outside
finish on; \$100, completed; \$100, 35 days.

Sharon near Rich. One-story frame; owner, Eugene O'Connor; contractor,
Alfred Hawkins; cost, \$1,025; signed, Oct. 11; filed, Oct. 13; payments, \$97,
enclosed; \$400, brown mortar on; \$400, completed; \$107, 35 days.

Shotwell near 23rd. Painting exterior; owner, Board of Education; architect,
C. L. Hayes; contractor, Thos. Leamed; cost, \$145; signed, Oct. 19; filed, Oct.
20; payments, \$145, completed.

Silver near 2d. Painting exterior; owner, Board of Education; architect, C. L.
Hayes; contractor, W. S. Upham; cost, \$130; signed, Oct. 22; filed, Oct. 23;
payments, \$130, completed.

Stevenson near 19th. Alterations and additions; owner, Mary Chaney; contrac-
tor, A. S. Cook; cost, \$1,350; signed, Oct. 20; filed, Oct. 20; payments, \$37.50,
frame up; \$37.50, brown mortar on; \$37.50, completed; \$37.50, receipts bills
shown.

Sutter near Gough. Three additional rooms to school; owner, Board of Educa-
tion; architect, C. L. Hayes; contractor, Jas. Campbell; cost, \$2,394; signed,
Oct. 31; filed, Nov. 2; payments, \$1,000, enclosed and brown mortar on; \$1,000,
completed; \$900, 35 days.

Sutter near Jones. Four-story brick and frame; owner, Elnora Wallace;
architect, R. H. White; contractor, D. T. Pierce; cost, \$12,500; signed, Oct. 10;
filed, Oct. 11; payments, \$2,750, foundation in and wall plates on; \$2,750, frame
up; \$2,900, ready for brown mortar, main cornice and bay windows; \$2,500,
frame up; \$5,000, ready for brown mortar, main cornice and bay windows;
\$2,500, plastered; \$2,500, inside finish on; \$2,500, completed; \$21,000, 35 days.

Sutter near Jones. Alterations and additions; owner, University Club; archi-
tect, A. Page Brown; contractor, D. S. Christy; cost, \$1,555; signed, Oct. 6;
filed, Oct. 7; payments, 1st day of each month 75 percent as work progresses;
balance, 35 days.

Sutter near Mason. Grading; owner, Simon Weinman; architects, Bliss &
Moore; contractor, J. H. O'Brien; cost, \$3,000; signed, Oct. 1; filed, Oct. 3;
payments, 1st and 15th day of each month 75 percent as work progresses;
balance, 35 days.

Sutter near Montgomery. Bank furniture; owner, Bank of Kelly Banking Co.;
architect, Chas. J. Dechler; contractor, Jas. Kemp; cost, \$3,875; signed, Sept.
29; filed, Oct. 1; payments, 75 percent as work progresses; balance, 35 days.

Sutter near Montgomery. Plumbing work; owners, J. A. & P. J. Donohoe;
architect, C. J. Dechler; contractor, J. Kemp; cost, \$3,875; signed, Sept.
29; filed, Oct. 1; payments, 75 percent as work progresses; balance, 35 days.

Sutter near Taylor. Fresnoe work; owner, Golden Gate Building Association;
architect, Wm. F. Smith; contractors, Kern & Elbach; cost, \$1,000; signed, Oct.
18; filed, Oct. 30; payments, \$150, primed and sized; \$300, stenciled; \$750, com-
pleted; \$400, 35 days.

Third Ave. near Lake. A dwelling house; owner, Chas. Welsh; contractor,
C. A. Peterson; cost, \$1,650; signed, Oct. 6; filed, Oct. 7; payments, \$500, en-
closed; \$500, plastered; \$500, completed.

Twenty-fourth and Dolores. Concrete wall; owner, Gen. Edwards; contractor,
Gray Bros. Art Stone Co.; cost, 50 cts. per cubic foot; signed, Sept. 30; filed,
Oct. 5; payments, to be paid in three equal payments on or before the 2, 4
and 6 months from completion.

Union, Fillmore, Green and Steiner. Stone sidewalk; owner, Amelia V. R.
Pixley; contractor, George Goodman; cost, \$2,440; signed, Sept. 30; filed, Oct.
7; payments, 75 per cent, sidewalk on Union street completed; 75 per cent,
Fillmore street completed; 75 per cent Green street completed; 75 per
cent Steiner street completed; balance 35 days.

ALAMEDA COUNTY.

Addison St., Berkeley. To build; owner, Edward McVay; architect, G. W.
Collinson; contractor, Oscar Carpenter; cost, \$1,500; signed, Oct. 6; filed, Oct.
20; payments, 75 percent as work progresses; balance 35 days.

Alameda Ave. near Walnut, Alameda. Additional work to a building; owner,
Mrs. Anna Regan; contractor, A. R. Denke; cost, \$1,700; signed, Oct. 2;
filed, Oct. 27; payments, \$900, roof on; \$900, completed; \$900, 35 days.

Block No. 567, Lot 20, Oakland. One-story cottage; owner, Sarah Keeley;
contractor, W. M. Campbell; cost, \$2,200; signed, Sept. 28; filed, Oct. 1; pay-
ments, \$675, frames up; \$450, enclosed, floors laid and brown mortar on; \$450,
completed; \$675, 35 days.

Butler near Idaho. One-story frame; owner, C. A. Klinkner; contractor, G. B.
Saunders; cost, \$1,750; signed, Oct. 18; filed, Oct. 20; payments, \$435, enclosed;
\$435, brown mortar on; \$435, completed; \$435, 35 days.

Centerville, Alameda. Two-story frame; owner, Fannie Salz; architects, J. J.
& T. D. Newson; contractor, B. O. Simpson; cost, \$3,548; signed, Oct. 11; filed,
Oct. 13; payments, 75 per cent as work progresses; 25 per cent, 35 days.

Clay near 18th, Oakland. To build; owner, Oakland Gas Lighting and Heating
Co.; architects, Coxhead & Coxhead; contractor, Rhody Ringrose; cost,
\$7,100; signed, Sept. 21; filed, Oct. 2; payments, 1st day of each month 75 per
cent as work progress; balance 35 days.

Dow and Thomas Tract, Brooklyn. Two-story frame; owner, W. F. Thomas;
contractor, J. A. Eastman; cost, \$1,640; signed, Oct. 5; filed, Oct. 6; payments,
\$410, frame up and roof sheathed; \$410, brickwork finished and brown
mortar on; \$410, completed; \$410, 35 days.

Eighth near Chestnut, Oakland. Two-story frame; owner, Andrew Rudge;
contractors, A. W. Pattani & Co.; cost, \$1,070; signed, Oct. 8; filed, Oct. 10;
payments, \$1,000, rustic and shingles on and chimneys built; \$1,000, window
panes in and brown mortar on; \$1,000, completed; \$1,070, 35 days.

Fifth near Allston, Berkeley. One-story cottage; owner, Wm. Smidt; architect,
Wm. Schrof; contractor, Thos. P. Roack; cost, \$1,385; signed, Oct. 12; filed,
Oct. 14; payments, \$445, rustic and roof boards on and chimneys built; \$445,
brown mortar on and window frames set; \$445, plastered; \$445, 35 days.

Fifth near Myrtle, Oakland. Two-story dwelling; owner, Luigi Raffetto; con-
tractor, Alex. F. Johnson; cost, \$3,700; signed, Oct. 13; filed, Oct. 13; pay-
ments, \$900, rustic and roof on; \$900, brown mortar on; \$900, plastered; \$900,
windows and doors on; \$900, completed; \$900, 35 days.

Fitch Tract, Alameda. One-story building; owners, M. A. & Amalie Berg;
contractors, Lohr & Prugh; cost, \$1,307; signed, Sept. 29; filed, Oct. 1; pay-
ments, \$400, work done and 1/2 materials furnished; \$400, 3/4 done and 1/2
furnished; \$400, completed; \$400, 35 days.

Fourteenth and Broadway, Oakland. Carpenter work, painting, etc.; owners,
Clenk & Moser; architect, Wm. Moser; contractors, Smille Bros; cost,
\$7,400; signed, Oct. 13; filed, Oct. 25; payments, as work progresses, 75 per
cent in three payments; balance, 35 days.

Haight near Chipman, Alameda. Cottage; owners, M. G. H. Perry; contractor,
John Sully; cost, \$1,000; signed, Oct. 23; filed, Oct. 23; payments, \$33.33, frame
up and roof sheathed; \$33.33, wood work, plastering and priming finished;
\$33.33, 35 days.

Haight Ave. near 7th, Alameda. One-story frame; owners, Mohr & Wright;
contractor, O. R. Berke; cost, \$3,500; signed, Oct. 17; filed, Oct. 17; payments,
\$75, frame up; \$75, brown mortar on; \$75, completed; \$75, 35 days.

Hirschfeld Tract, Alameda. Story and a half cottage; owners, Helena and W.
C. Forsyth; contractor, John J. Boyle; cost, \$1,250; signed, Oct. 4; filed, Oct.
20; payments, \$506.25, brown mortar on; \$506.25, completed; \$357.50, 35 days.

Mason near Calais, Oakland. One-story dwelling; owner, W. H. Bishop; con-
tractor, J. D. Irving; cost, \$1,500; signed, Sept. 30; filed, Oct. 1; payments, \$375,
frame enclosed; \$375, completed; \$375, 35 days.

Nineteenth Ave. near 10th St., Oakland. Cottage; owner, T. M. Gardiner;
contractor, C. B. Kimball; cost, \$3,100; signed, Oct. 18; filed, Oct. 20; payments,
\$75, frame up and roof on; \$75, brown mortar on and rough plumbing
done; \$75, completed; \$800, 35 days.

Office near 11th, Oakland. Two-story frame; owner, Benard Nolan; architect,
Edward McManus; contractor, H. W. Schaefer; cost, \$2,500; signed, Oct. 20;
filed, Oct. 26; payments, \$500, rustic on; \$500, brown mortar on and window
frames set; \$500, completed; \$500, 35 days.

Parsons Golden Gate Tract. Two-story frame; owners, Phoebe & J. Minch;
contractor, W. M. Campbell; cost, \$2,440; signed, Oct. 18; filed, Oct. 18; pay-
ments, \$450, 2d floor joists on; \$450, brown mortar on; \$450, completed all but
tank houses; \$450, completed; \$1,000, after completion.

Peach near Jefferson, Alameda. To build; owner, C. E. Keys; contractors, C.
H. Foster & Son; cost, \$1,242; signed, Oct. 17; filed, Oct. 18; payments, \$900,
frame up and floor laid; \$900, enclosed; \$920, brown mortar on; \$920, com-
pleted.

Shattuck Tract, Berkeley. One-half story cottage; owner, Andrew Herman;
contractors, Hyde & Cox; cost, \$2,300; signed, Oct. 15; filed, Oct. 20; payments,
\$575, enclosed and roof on; \$575, brown mortar on; \$575, completed; \$575, 35
days.

Sixth near Bush, Oakland. Two-story frame; owner, M. E. Church; architect,
C. A. Bordwell; contractor, J. H. Long; cost, \$2,470; signed, Oct. 17; filed,
Oct. 17; payments, \$220, rustic and shingles on; \$618, plastered; \$618, com-
pleted; \$620, 35 days.

Sixth Ave. near 15th, Oakland. Two-story frame; owner, E. A. Henshaw; archi-
tect, J. J. Mathews; contractors, Herist & McLeod; cost, \$8,170; signed,
Oct. 15; filed, Oct. 8; payments, \$1,225.50, one-fifth work completed; \$1,225.50,
two-fifths completed; \$1,225.50, three-fifths completed; \$1,225.50, four-fifths
completed; \$1,225.50, completed; \$2,042.50, 35 days.

Stammon near Pacific Ave. Cottage; owner, Arthur E. Boyce; contractors,
Marcuse & Remmel; cost, \$1,455; signed, Oct. 15; filed, Oct. 18; payments,
\$363.75, frame up and roof on; \$363.75, brown mortar on; \$363.75, completed;
\$363.75, 35 days.

Thirty-second near Grove, Oakland. To build; owner, Henry Bente; architect,
A. J. Wood; contractor, Chas. J. Antivier; cost, \$1,445; signed, Oct. 1; filed,
Oct. 25; payments, \$300, shingles and rustic on; \$300, brown mortar on; \$300,
completed; \$445, 35 days.

Ten-fifth Ave. near 21st St., Oakland. Two-story frame; owners, P. J. G. Kenna
and wife; contractors, A. W. Pattani & Co.; cost, \$3,077; signed, Oct. 28; filed,
Oct. 28; payments, \$850, rustic and shingles on and chimneys built; \$750,
window frames set and brown mortar on; \$877, completed; \$800, 35 days.

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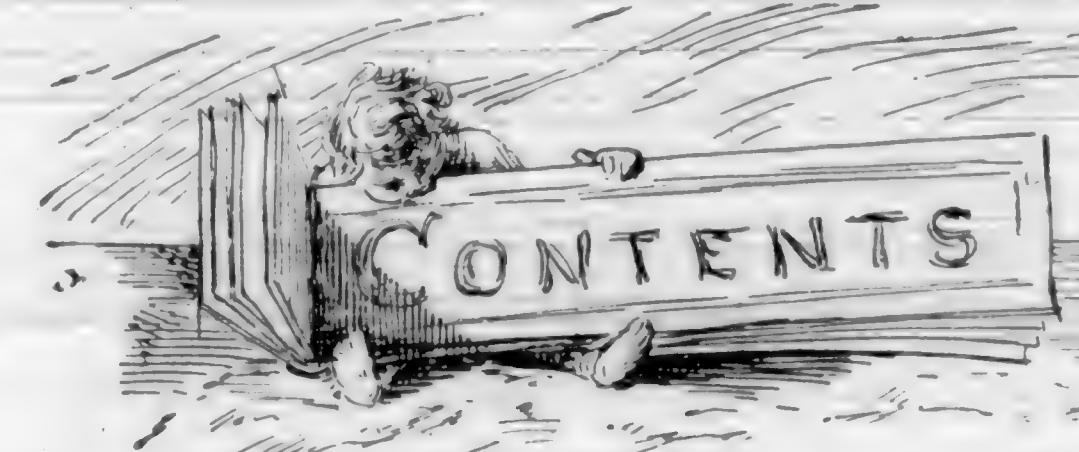
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6 inch.....	9.00	18.00	27.00	108.00
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8 inch.....	12.00	24.00	36.00	144.00
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THE old firm of Kenitzer & Kollofrath, Architects, has
dissolved partnership. Mr. C. W. Kenitzer remaining
at the old stand, 601 California street, corner of Kearny,
while Mr. Edmund Kollofrath has located his office in the
Flood Building, room 58.

THE end of another year has come, and marks an impor-
tant event. When one thinks of what it has been in
comparison with what it might have been, the contrast sug-
gests the question: To what extent are we, ourselves, account-
able for the aqueous castles and misdirected ideals that have
come to nought?

Have we, as individuals, performed our duties in a
manner to advance and elevate the profession or trade we
call our own? We are often reminded that the past, when
reviewed, does not present the rosy tints that attracted our
attention at an earlier period, yet tints of evening sometimes
show a refined softness not to be found in the dazzling light
of the morning.

The year 1892 has added many growths to the industries
of this section of the country. The mines have turned out
their wealth, the farming and fruit products have been
more abundant than in any previous year, and the country
districts are prosperous to an unusual extent.

Railroads have been extended into some of the richest
valleys, electric roads have come to open up increased
facilities for travel, the water courses of our hills have been
utilized to run electric plants and the power conveyed to
what have heretofore been inaccessible points for manufactur-
ing purposes. The increased use of electricity in architect-
ure and engineering during the year has been beyond com-
putation.

The year has shown a marked expression of opinion re-
garding the technical education of those who are to take the
field in years to come, and among them all, architecture as
an art and a science has been passing gradually from the
hap-hazard styles of a few years ago, to a more systematic
development which is very gratifying to those who love the
profession. As the days pass on we naturally turn toward
the future and endeavor to unravel the mysteries Father
Time has in store for us.