

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, Treas.

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.

THE Semi-annual Reunion and Banquet of the San Francisco Chapter of the American Institute of Architects was held on Thursday, the 7th inst.

All architects were invited to participate whether members of the Chapter or not.

The "Menu Cards" were all hand pen work prepared by Mr. Daniel Polk. Each card had a different sketch and they presented a unique appearance.

Letters were read from those who were unable to attend.

Mr. Geo. H. Sanders as president of the Chapter made the opening remarks, congratulating the profession upon the progress of architecture during the fifty years of its growth on the Pacific Coast.

He claimed that we have sufficient native latent talent for all future requirements, and that it should be placed under some systematic training at as early a period as possible. He stated at some length, the benefits that would be likely to follow from a Winter exhibition of architectural drawings and art work having a special adaptation to architectural design.

He also mentioned the proposition for forming an Architectural Club, the membership of which may be broad enough to include architects, sculptors, decorators, and all workers in architectural art work, and furthermore it was proposed to include amateurs and patrons of such works. A club of this breadth could establish classes of instruction on a more extended scale than a more limited membership would allow. This idea and project of a "Club", Mr. Sanders stated, had been formulated in conjunction with Mr. Willis Polk.

The president then introduced Mr. Wm. Curlett as Master of Ceremonies.

As a preliminary to his remarks, Mr. Curlett quoted the maxim, "Perfection is out of the question but excellence can be gained by hard work," and then stated that without unremitting study and work no excellence can be obtained.

His remarks were appropriately pointed to the subject as

he introduced the different speakers.

Mr. Geo. W. Percy then presented the awards.

1st Silver Medal to MR. SAMUEL C. BENSON, he having receive first mention six times out of eight competitions for the year 1890. This student was distinguished for the delicacy, beauty and artistic quality of whatever he undertook.

2nd. Silver Medal to MR. H. J. VAN VLACK, he having received the greatest number of 2nd mentions and the final prize for the best pen and ink drawing from photograph for the year 1890.

3rd. Bronze Medal to MR. LINDEN BREE, he having received first mention for the best pen and ink drawing from photograph for 1891.

3th. Certificate of honorable mention to MR. CONRAD A. MEUSDORFER, he having received one first mention for pen and ink drawing for 1891.

Mr. Percy then gave the students a brief outline of the history of architecture and of special lines of study, as laid down by eminent authorities, and to which it was desired to call their attention.

Mr. Theo. Lenzen made some old time remarks, and Mr. Albert Pissis was gratified that so much interest was exhibited in the future welfare of the profession. Mr. Jas. E. Wolfe gave an early history of the architecture of San Francisco, and stated that in 1853, the toll gate leading to the Mission Dolores was placed at or very near the locality of the building in which we were then holding our festivities. Mr. L. R. Townsend was pleased to think that the architects should be able to "draw a full house" when so many were away on vacation trips. Mr. J. H. Littlefield made some remarks on the amplitude of speech, architecturally considered, and Mr. Edw. Kolofrath responded to the "dinner" question. Mr. M. G. Bugbee spoke on the subject of "Modern Architecture", and Mr. H. T. Bestor considered the "Press in Architecture".

Mr. Oliver Everett and Mr. Edw. Burns both treated the dining-room from the æsthetic and art side of the question. There were several present of whom we did not get the names. At eleven o'clock all hands joined in "Auld Lang Syne" and the company dispersed.

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.

RELEASE OF LIENS BY CONTRACTOR.—A stipulation by a contractor, "to release and discharge the house from the operation of all liens for material furnished or work done in the construction of the same," is not a waiver of the lien so as to prevent a subcontractor enforcing a lien for lumber and woodwork before final settlement between the contractor and owner, *Schroeder v. Galland*, 19 At. Rep. 632, 134 Pa. St. 277 distinguished. It is no defense to such lien in Pennsylvania that the aggregate amount of the liens entered against the building, together with the cost of completing the same, exceed the contract price, if the materials furnished were of the quantity and quality needed for its construction.

Taylor v. Murphy, Supreme Court of Pennsylvania, 23 At. Rep. 1134, 112 C.



TALKS ON LAW.

BY the earlier conquests and during the settlement of a Country, order and law develop and become a part of its civilization. The growth of law and architecture are so interwoven that the history of one becomes the history of the other. America has at different periods had portions of its territory under the influence of different nations which have left certain peculiarities in the earlier architecture that are not easily understood without a history of the settlement of these sections. To obtain a concise history of the settlements made by the different nations is of material aid to the student of the architecture of this Continent. In addition to the legal aspect of the question the student will be interested in the "Talks on Law" by Mr. Wm. C. Sprague, who has by a systematic research given a clear history of the law, with a brevity seldom met with.

THE GROWTH OF AMERICAN LAW.
By Wm. C. SPRAGUE, Esq.

To obtain an adequate idea of the law of any country, one must travel to its sources and follow its growth from its very beginning. Let us pursue this method in a few studies on the growth of our law. In the first place the seeds of American jurisprudence were transplanted from the old world. The navigators, explorers, missionaries, reformers, gold seekers of the very earliest days, brought to our shores along with their intense desire for conquest, for individual gain, for the glory of their sovereigns, and for religious freedom, the customs and laws of the homes they left and adopted them in the new world so far as they were fitted to their circumstances and their environment. The English brought with them the priceless heritage of the common law of England, and the French and Spanish brought the principles and codes built upon the foundations of the civil law—the law of Rome.

Of the early explorers succeeding Columbus, there was Juan Ponce de Leon, who landed in 1513, near St. Augustine, in Florida, in search of the Fountain of Youth; in 1520, Spanish ships touched the coast of Carolina; in 1521 the territory now known as Texas, New Mexico and California became a part of a great province attached to Spain by the con-

quest of her great explorer, Cortez. De Soto, another Spaniard, led a party from Florida across the country to the Mississippi in 1542. In 1584-5, Sir Walter Raleigh sent two expeditions to North Carolina. A Spanish settlement was made at St. Augustine, 1565. Jamestown, Virginia, became the first English settlement in 1607. New York (New Netherlands), in 1613, was settled by the Dutch, and Plymouth, Massachusetts, by the English in 1620. La Salle explored the Great Lakes and the Mississippi in 1682, the French establishing settlements at Kaskaskia and Arkansas Post in 1685, and Mobile and Vincennes in 1702. Thus England, Spain and France divided among themselves the great continent of North America. Spain got the Southern, England the Central, and France the Northern portion.

The discoveries thus made vested the new lands in the sovereign. His title was that by discovery grounded upon the three following ideas: The Christian nation that discovers a heathen land owns it to the exclusion of all other Christian nations. This nation to complete its title must within a reasonable time, occupy and use this land. The native inhabitants are only the occupants of the land and not its owners.

For over one hundred years from the discovery, by Columbus no settlement deserving of more than passing mention was made in the new world by the English. Many and feeble attempts were made, fearful hardships endured, heroic efforts put forth, but in vain. Raleigh's and Drake's efforts were unsuccessful. The Spanish settlements were more successful, and for a clear reason. Spain looked upon her explorations as means toward extending her dominion. She looked forward to another great Roman Empire. Her explorations were, in a sense, official, and once a post was planted, high officers of State with large salaries were annexed to it, thus drawing patronage, wealth and population. It was otherwise with the English. In nearly every case colonization and exploration was private enterprise; if unsuccessful drawing in its wake individual suffering and loss, but if successful, resulting in little indeed to the individual but everything to the crown. Left thus to their own resources, English colonies in America had a precarious existence for the first one hundred and fifty to two hundred years, leading one writer to say of the British colonists as late as the end of the seventeenth century, "they were robbers and pirates on a large scale."

BUSINESS MOSAICS.

Geo. H. Tucker, manufacturer of galvanized iron cornices, and other ornamental work in sheet metal; also of the "Hayes Patent" skylights, etc. See advertisement on page xxii.

The Pullman Sash Balance using Alluminum Tape is by degrees displacing the older system of cords and weights. Lately we inspected some old sashes which had been re-hung with this new balance and found them to work either up or down very easily, and to remain where left. In fact, they were under perfect control. The appliance is neat and attractive in appearance, effective in use, and has been in use a sufficient length of time to demonstrate its durability and merits. Interested parties should send to C. A. Maydwell, general agent for Pacific Coast, 132 Market street, San Francisco, Cal.

Portland Cement of the best quality is of great importance. Where brick work is laid up with a good quality of cement, it is considered earthquake-proof. As the science of manufacture becomes better understood, better qualities of the finished product may be found in the market. Messrs. Girvin, Baldwin & Eyre, at 307 California street, San Francisco, Cal., are now importing several brands of the best quality of Portland Cement. See advertisement on page xiv.

Mantels and interior finish for first-class work for banks, offices, etc., are furnished by Wm. Bateman, 411 Mission street, San Francisco, Cal.

Wire work for Aviaries is coming into use for suburban and country estates where many ornamental wire structures are contemplated. The West Coast Wire Works, Trowbridge & Son, 13 and 15 Spear street, San Francisco, Cal., make a specialty of this class of work, together with all kinds of wire work.

The future points to an advance in the iron manufacturing interests on this Coast. The troubles in the Eastern Centers of manufacture will turn the tide backward toward this section of the country. We would particularly call attention to the Western Iron Works at 123 and 125 Beale St., San Francisco, Cal. This company contracts for all kinds of wrought iron and steel work for buildings from anchors to beams and girders of the largest size.

This firm is too strong to have a couple of months dull times drive them out of the market. They have business energy to back them.

The J. L. Mott Iron Works, has issued a new catalogue and price list of Cast and Wrought Iron, Brass, Bronze and Nickel-plated Stable, Cattle and Piggy Fittings. The plans and suggestions shown are of a nature to be useful for the Architect and Builder of such structures. The sanitary problems are worked in accordance with the latest scientific knowledge of the subject. The designs are artistic and present a beauty of finish hitherto unknown in such work. The designs and arrangements shown are the result of years of experience in this line of manufacture as improved from time to time by suggestions from practical experience. Every architect who has not already done so, should inform himself by addressing the agent. See advertisement on page viii.

The San Francisco Gas Light Co. has introduced so many gas cooking and heating stoves that the old style of wasteful coal stove is being rapidly displaced. It has been demonstrated that the pleasant open fire is more economical with gas than with coal. At present new buildings with any pretensions to modern conveniences provide for open gas fires.

In the new building in course of erection for Mrs. Anna Donahue on Market street, Chas. I. Havens, Architect, outlets have been left for gas connections for open gas fires in the grates. As arranged in this case either open fires or close heaters can be used as desired.

Galvanized Steel Laundry Tubes are being used in many of the modern houses. They are light and tough, the corners rounded and easily cleaned, and do not foul and sour with use. Geo. H. Tay & Co., 612 to 620 Battery St., San Francisco, are the manufacturers.

A correspondent in the *American Machinist* says: If engineers, machinists and millwrights in general and pipe-fitters in particular knew of the good qualities of graphite, I dare say there would be ten times the demand for it. Its lubricating qualities are questioned only by the impractical and it is this quality alone that sounds its key note, so to speak. Let me describe a few of what I consider its most important uses. As above stated its primary object is lubrication and it is to this fact we must credit good pipe joints and cool bearings. In making pipe cement, (or as I would term it, pipe smear), it is not necessary to use the best oil or grease, as it is the Graphite and not the body in which it is suspended, that makes the mixture valuable and the joint perfect. I use the drippings from line shaft bearings, caught in the ordinary way and mix it with the best Ticonderoga flake Graphite so that it can be applied with an ordinary sash tool.

During the past three years I have used about fifteen or twenty pounds of dry Ticonderoga flake Graphite for pipe joints, cylinder heads, piston rod packing, etc.

Bolts, smeared with Graphite mixed as above, I have unscrewed after having been in the dampest places for upward of two years, or more, proving the anti-rusting qualities of Graphite. To cool hot bearings put it on as thick as it will mix with oil. Almost any oil or grease will answer but don't use poor Graphite.

The Bostwick Steel Lath seems to have distanced all other sheet iron lath in this vicinity. They have lately increased their facilities and are prepared to furnish their superior lath in any quantities. The superiority of this lath is at once apparent. The openings form a very strong key to hold the mortar in place, while the mortar that passes through the interstices partially covers the back of the lath, thereby forming a fire resisting material. See advertisement on page xvi.

W. T. Garratt & Co. is one of the oldest manufacturing establishments on this coast. This firm has in the market an efficient and noiseless pump especially adapted for elevators, electric motors and gas engines. This firm also furnishes bronze work of all kinds, both high and low reliefs for gates, doors, railings, hinges, etc., for cemetery work; also copper, brass and iron pipe, tubing and fittings of every description.

Patent Chimneys are a standard feature in house construction in San Francisco and the neighboring cities and towns. The Stevens Patent Chimney is one that has withstood the test of time. See advertisement on page xvii.

Another importing house has come over to American made Tin Plate for roofing and other use. Merchant & Co., of Philadelphia, are now furnishing tin roofing plates of a superior quality, each plate being guaranteed. These plates are made by a continuous process. The best quality of steel sheets in large rolls are put in at one end, run through a scouring machine, thence through a tining bath, and then scoured. A course through a tern bath gives the final coating, and then they are cut, assorted and packed. This is one continuous operation from the sheet steel to the finished product ready for the roofer.

This company furnishes copper, tin or other metal tiles for roof and wall work. These tiles give a beautiful effect to towers or high pitched roofs. The Star Ventilators furnished by them are of practical utility. See advertisement on page xxi.

The re-opening of the works of the Hydraulic Pressed Brick Company last month marks a period in the brick architecture of San Francisco. The works are situated near Vallejo where the Company has an abundance of material well adapted to the manufacture of pressed bricks. The hard clay and shale is first carried to and stored in sheds where it air slaks, dries and crumbles. It is then put into a course crusher and thence run through a finer crusher, sifted and bolted, and the resulting fine flour clay dust is conducted through the moulding and pressing machine where it is first pressed from below and then from above with a pressure of 2,000 lbs. to the inch. The bricks are now taken to the kiln and packed for burning. The kiln is continuous, but divided into eighteen compartments by open arches. Each compartment holds one day's work, or 35,000 bricks. As we inspected the kiln the conclusion was forced upon us that the economic system upon which this company is working will revolutionize the general opinion that brick is so much more expensive than frame. The daily capacity of the machine and kiln is 35,000 extra quality of stock and pressed bricks, and so nearly automatic that forty men constitute the working force. Architects and builders will find it to their advantage to look into this matter.

TENDERS TO BE RECEIVED.

Treasury Department, Office Supervising Architect, Washington, D. C., July 14th, 1892. Sealed Proposals will be received at this office until 2 o'clock P. M. on the 28th day of August, 1892, and opened immediately thereafter, for all the labor and materials required for the erection and completion of the buildings for the U. S. Quarantine Station, at San Diego, California, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent, San Diego, California.

Each bid must be accompanied by a certified check for a sum not less than 2 per cent. of the amount of the proposal. The right is reserved to reject any and all bids, or to waive any defect or informality in any bid, if it is 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 of the buildings for the U. S. Quarantine Station, at San Diego, Cal." and addressed to,

W. J. EDBROOKE,
Supervising Architect.

Treasury Department, Office Supervising Architect, Washington, D. C., July 2, 1892. Sealed proposals will be received at this office until 2 o'clock P. M. on the 2d day of August, 1892, and opened immediately thereafter, for all the labor and material required for the excavation, foundations, cut stone and brick work, iron and wood floor and roof construction, roof covering, approaches, etc., for the U. S. Post Office building at Fort Dodge, Iowa, in accordance with the drawing and specification, copies of which may be had on application at this office or the office of the Superintendent at Fort Dodge, 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 is 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 Excavation, Foundations, Cut Stone and Brick work, Iron and Wood Floor and Roof Construction, etc., for the U. S. Post Office Building at Fort Dodge, Iowa," and addressed to,

W. J. EDBROOKE,
Supervising Architect.

CITY BUILDING NEWS.

Baker and Greenwich. To build except painting and plumbing; owner, Otto Kaiser; architects, Martens & Coffey; contractor, J. J. O'Brien; cost, \$3,700; signed, June 20; filed, June 22; payments, \$840, enclosed; \$840, brown mortar on; \$840, completed; \$840, 35 days.

Battery near Pacific. Plumbing and gas-fitting; owner, Jas. G. Esler; architect, H. A. Schulze; contractors, Wm. S. Snook & Son; cost, \$3,480; signed, June 11; filed, June 18; payments, 75 per cent. as work progresses 1st day of each month; balance, 35 days.

Broadway near Franklin. Painting, graining, etc.; owner, J. H. & M. J. Hatch; architect, Jas. E. Wolfe; contractor, J. F. Sullivan; cost, \$1,130; signed, June 4; filed, June 7; payments, 75 per cent. of value of work done when exterior is primed; 75 per cent. of value of work done when interior is primed and exterior has received two coats of paint; 75 per cent. completed, 25 per cent. 35 days.

Brosman and Guerrero. Frame building; owner, Mary S. Hodgkins; architect, Jno. T. Kidd; contractor, W. A. Secor; cost, \$2,700; signed, June 18; filed, June 18; payments, \$400, first floor joists on; \$300, enclosed; \$300, brown mortar on; \$500, completed; \$700, 35 days.

Buchanan near Union. Two-story frame; owner, P. H. Murphy; architect, C. M. Rousseau; contractor, H. C. Bigge; cost, \$1,000; signed, June 16; filed, June 18; payments, \$750, frame up; \$750, brown mortar on; \$750, completed; \$750, 35 days.

Bush and Chelsea Place. Lathing and plastering; owner, Jas. Cochran; architect, P. R. Schmidt; contractor, F. Coughlin; cost, \$1,000; signed, May 24; filed, June 7; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Bush and Chelsea Place. Hydraulic elevator; owner, Mrs. M. W. Newman; architect, P. R. Schmidt; contractors, W. H. Birch & Co.; cost, \$2,675; signed, June 9; filed, June 16; payments, \$1,000, 1/2 work done; \$1,000, completed; \$675, 35 days.

California and Broderick. Brickwork; owner, Methodist Episcopal Church; architects, Perry & Hamilton; contractor, Waldemar Tharp; cost, \$5,703; signed, April 11; filed, June 13; payments, 75 per cent. as work progresses 1st Saturday of each month; balance, 35 days.

California near Drumm. Pile foundation; owner, Luning Co.; architects, Cuykendall & Coxhead; contractors, Darby, Laydon & Co.; cost, \$7,400; signed, June 14; filed, June 15; payments, 75 per cent. as work progresses, 1st day of each month; balance, 35 days.

California and Sansome. Brick terra-cotta work, etc.; owner, Mutual Life Insurance Co. of N. Y.; architect, Clinton Day; contractor, J. S. McCarthy; cost, \$80,884; signed, June 8; filed, June 13; payments, \$8,000, walls built to top of fourth story; \$10,000, walls built to top of belt course over sixth story; \$10,000, walls built to main cornice; \$10,000, all exterior and fire walls finished; \$12,684, completed, with rebates or extra charges; \$17,496, 35 days.

California near Octavia. Carpenter work, etc.; owner, Anna D. Miner; architect, Samuel Newsom; contractor, A. Jackson; cost, \$6,000; signed, June 20; filed, June 20; payments, 75 per cent. as work progresses; balance, 35 days.

Cherry near Jackson. Frame residence; owner, Jas. B. Batten; architect, Willis Folks; contractor, R. P. Frazier; cost, \$4,170; signed, June 13; filed, June 14; payments, \$1,000, frame up; \$1,000, brown mortar on; \$1,120, completed; \$1,050, 35 days.

Chay near Frederick. Alterations and additions; owner, V. J. Dufrance; architect, Chas. M. Rousseau; contractor, Louis Medus; cost, \$2,650; signed, May 31; filed, June 2; payments, \$602, enclosed; \$602, brown mortar on; \$602, completed; \$604, 35 days.

Crocker Building, 2d floor. Office fittings; owner, Equitable Life Assurance Co.; architect, A. Page Brown; contractors, Miller & Hamilton; cost, \$1,900; signed, May 25; filed, June 1; payments, 75 per cent. when completed; balance, 35 days.

Day near Church. Carpenter, brickwork, etc.; owner, Elizabeth Cavanaugh; architect, Edward Burns; contractor, Greenwood Contracting Co.; cost, \$3,680; signed, June 6; filed, June 7; payments, \$925, frame up; \$925, brown mortar on; \$925, completed; \$905, 35 days.

Douglass near 17th. Frame house; owner, L. Kenney; contractors, Marcuse & Remick; cost, \$1,150; signed, June 2; filed, June 16; payments, \$288, frame up; \$288, brown mortar on; \$288, completed; \$280, 35 days.

Drumman near California. Brick and stonework; owner, H. Braunschweiger; architects, Kenitzer & Kollofrath; contractor, Adam Miller; cost, \$11,240; signed, June 4; filed, June 6; payments, \$2,500, 2d story joists in place; \$3,000, fire wall complete; \$2,940, completed; \$2,900, 35 days.

Duncan near Church. Alterations and additions; owner, Henry Wendt; architects, Martens & Coffey; contractor, M. Laffens; cost, \$1,955; signed, June 11; filed, June 13; payments, \$550, enclosed, outside finish on and partitions set; \$745, completed; \$400, 35 days.

Eddy and Leavenworth. Four story frame; owner, Julius Platshek; architect, J. G. Hult; contractor, S. T. Crawford; cost, \$19,150; signed, June 17; filed, June 17; payments, \$1,250, foundation walls up, and 1st story studding and 2d floor joists on; \$2,000, enclosed and roof boards on; \$2,500, rough plumbing in and brown mortar on; \$3,000, plastered and glazing except store windows done; \$1,302.50, interior and exterior finish on; \$1,250, completed; \$1,787.50, 35 days.

Filbert near Buchanan. Two-story frame; owner, Josephine L. Lattie; architect, Emile Depierre; cost, \$1,815; signed, April 21; filed, June 3; payments, \$400, frame up; \$300, brown mortar on; \$300, plastered and standing finish on; \$300, completed; \$450, 35 days.

Fillmore near Bush. Carpenter work, tinning, etc.; owner, J. L. Franklin; architect, Wm. Curlett; contractor, John Miron; cost, \$7,825; signed, June 13; filed, June 16; payments, \$1,000, second story frame up; \$1,000, roof on; \$1,368.75, outside finish on; \$1,500, partitions set; \$1,000, completed; \$1,950.25, 35 days.

Fillmore near Bush. Lathing, plastering and centers; owner, J. L. Franklin; architect, Wm. Curlett; contractor, Thos. Bodkins; cost, \$1,700; signed, June 15; filed, June 22; payments, \$300, brown mortar on; \$675, completed; \$425, 35 days.

First Ave. bet. Fulton and McAllister. Two-story frame; owner, Paul Ritter; contractor, Jacob Schuler; cost, \$2,285; signed, May 26; filed, June 27; payments, 75 per cent. as work progresses; balance 35 days.

Folsom and 7th. Three story building; owner, Jennie W. Cushing; architect, A. W. Pathart; contractors, Childs & Chatham; cost, \$15,925; signed, June 13; filed, June 21; payments, \$2,500, frame up; \$2,000, enclosed and chimneys built; \$2,000, lathed, brown mortar on and window frames set; \$2,000, plastered; \$3,425, completed; \$400, 35 days.

Fourteenth near Howard. Three-story frame; owner, J. Johnson; architects, John & Balezynski; contractors, Schutt & Kreeker; cost, \$7,800; signed, June 6; filed, June 7; payments, \$2,000, frame up; \$1,950, brown mortar on; \$1,950, ready for painter; \$1,900, accepted.

Franklin near Sacramento. Alterations and additions; owner, I. W. Hellman; architect, Clinton Day; contractor, C. Chisholm; cost, \$28,900; signed, June 13; filed, June 15; payments, \$3,675, frame and chimneys built; \$5,400, rough plumbing in, lathed and brown mortar on; \$3,000, plastered; \$7,625, plumbing completed; \$1,975, completed; \$7,225, 35 days.

Franklin near Vallejo. Carpenter work; owner, Alex. Warner; architect, E. A. Herman; contractors, White Bros.; cost, \$7,270; signed, June 9; filed, June 11; payments, 75 per cent. as work progresses, 1st and 15th day of each month; balance, 35 days.

Genry, No. 36, and California, No. 573. Alterations; owner, The Luning Co.; architects, Townsend & Wyneken; contractor, J. W. Wessinger; cost, \$3,500; signed, June 9; filed, June 9; payments, \$2,000, completed; \$1,500, 35 days.

Green near Stockton. Concrete and artificial stone work; owner, A. Demartini; architect, Wm. Mosser; contractor, Geo. Goodman; cost, \$1,067; signed, May 25; filed, June 3; payments, 75 per cent. as work progresses; balance 35 days.

Green and Union. Three-story frame; owners, A. Demartini and J. Cavanaugh; architect, Wm. Mosser; contractor, John J. Dunn; cost, \$7,340; signed, June 20; filed, June 20; payments, \$1,065, frame up to second floor including second story joists; \$1,065, enclosed; \$1,065, brown mortar on; \$1,065, plastered, rear platforms and front finished; \$1,065, completed; \$1,825, 35 days.

Greenwich near Laguna. Two-story frame; owner, Jacques Lassus; architect, Chas. M. Rousseau; contractors, Miron & Gardner; cost, \$2,375; signed, June 1; filed, June 2; payments, \$748, enclosed; \$743, brown mortar on and front finished; \$743, completed; \$746, 35 days.

Hartford St. One-story cottage; owner, Chas. Steinbring; contractors, Petterson & Person; cost, \$2,300; signed, June 1; filed, June 13; payments, \$550, frame up; \$550, brown mortar on; \$550, completed; \$550, 35 days.

Jessie near 6th. Alterations and additions; owner, Thos. Reid; architects, Shea & Shea; contractor, J. J. O'Brien; cost, \$2,900; signed, June 14; filed, June 14; payments, \$725, house moved, raised and new frame up; \$725, plastered; \$725, completed; \$725, 35 days.

Jersey near Castro. Three one-story cottages; owner, Cal. Investment Association; contractor, W. H. Mead; cost, \$4,200; signed, June 13; filed, June 17; payments, \$900, frame up; \$900, brown mortar on; \$1,200, completed; \$1,200, 35 days.

Jones and McAllister. Cast and wrought iron work; owner, Hibernia Savings and Loan Society; architects, Pissis & Moore; contractor, Henry Ralston; cost, \$1,092; signed, May 20; filed, June 6; payments 75 per cent. 1st and 15th day of each month as work progresses; balance, 35 days.

Market near Tenth. Brick building; owner, Isabella Alice Clark; architect, Clinton Day; contractor, T. H. Day; cost, \$49,000; signed, May 31; filed, May 31; payments, \$4,850, 1st tier of joists set; \$2,183, 2d tier set; \$6,480, 4th tier set, \$6,000, roof ready for tinning; \$6,255, plastered, tinned and floored; \$11,648, completed; \$12,475, 35 days.

Market near 17th. Three-story frame; owner, Geo. R. Monroe; architect, Geo. H. Kerr; contractor, Wm. Campbell; cost, \$14,450; signed, May 26; filed, June 2; payments, \$1,000, enclosed; \$1,000, brown mortar on; \$1,000, painted and plastered; \$450, completed; \$1,000, 35 days.

Masonic Ave. near Waller. To build; owner, C. Allison; architect, W. H. Little; contractor, E. W. Lewis; cost, \$1,385; signed, May 25; filed, May 31; payments, \$207.75, frame up; \$207.75, enclosed; \$207.75, brown mortar on; \$207.75, standing finish on; \$207.75, completed; \$46.25, 35 days.

Mission near New Montgomery. Brick work; owner, E. H. Kittredge; architect, Chas. Geddes; contractors, Richardson & Gale; cost, \$20,000; signed, June 11; filed, June 13; payments, \$5,000, walls ready for 1st floor joists; \$4,000, walls ready for 3rd story joists; \$3,000, walls ready for 5th story joists; \$3,000, completed; \$5,200, 35 days.

Mission near New Montgomery. Carpenter work; owner, E. H. Kittredge; architect, Chas. Geddes; contractor, A. Jackson; cost, \$20,200; signed, June 11; filed, June 13; payments, \$1,500, second floor joists set and iron posts up ready for brick work; \$3,000, fourth floor joists secured; \$3,000, roof on, floors laid and windows in; \$2,500, brown mortar on outside finished and stairs up; \$2,150, completed; \$5,050, 35 days.

Mission St. Pier No. 2. To build bridge; owners, J. Rosenfeld & Sons; contractor, S. F. Bridge Co.; cost, \$5,555; signed, May 20; filed, June 11; payments, 50 per cent. when material is on the ground; 25 per cent. completed; 25 per cent. 35 days; \$51 added to the cost for each pile driven.

Mission near 16th. Store and flats; owner, Edward Hawthorne; contractor, W. C. Robinson; cost, \$1,700; signed, June 2; filed, June 7; payments, \$800, frame up; \$800, enclosed, gas and water pipes in; \$800, plastered; \$800, carpenter work done; \$300, completed; \$1,200, 35 days.

Mission near 17th. Alterations and additions; owner, Adolph Morris; contractors, Droge & Munster; cost, \$5,000; signed, June 6; filed, June 7; payments, \$850, 1st story studding set, \$950 brown mortar on; \$950, plastered; \$950, completed; \$1,270, 35 days.

Mission St. No. 2,314. To build; owner, A. Rafetto; contractors, Toer & Massa; cost, \$2,735; signed, May 12; filed, June 13; payments, \$410.35, brickwork and excavation finished; \$410.35, skeleton put on; \$410.35, brown mortar on; \$410.35, completed; \$83.75, 35 days.

Natoma near 9th. Alterations and additions; owner, P. Foley; architect, H. R. Schmuckert; contractor, Jas. Larkin; cost, \$1,800; signed, June 13; filed, June 13; payments, \$450, roof on; \$450, brown mortar on; \$450, completed; \$450, 35 days.

O'Farrell near Devisadero. Three-story frame; owner, Seymour Gabriel; architects, B. McDougall & Son; contractors, G. Petersen and A. Olson; cost, \$1,500; signed, June 22; filed, June 23; payments, \$800, brick walls and 1st tier of joists in; \$800, frame up; \$1,400, rustic on, shingled, cornice up, rough plumbing in and ready for lathing; \$2,300, plastered and one coat of paint on; \$900, interior finished, painted and outside platforms complete; \$900, completed; \$2,355, 35 days.

O'Farrell near Fillmore. Two-story frame; owner, Mrs. H. A. McLean; cost, \$1,000; signed, June 1; filed, June 2; payments, \$500, frame up; \$700, brown coated, \$550, plastered; \$550, completed; \$1,000, 35 days.

Oregon and Drumm. Two-story brick building; owner, J. G. Fair; architect, H. A. Schulze; contractors, Riley & Leane; cost, \$18,000; signed, June 8; filed, June 11; payments, 75 per cent. as work progresses, 1st day of each month; balance, 35 days.

Oregon and Drumm. Two-story brick; owner, Jas. G. Fair; architect, H. A. Schulze; contractors, O'Donnell & Lewis; cost, \$8,400; signed, June 13; filed, June 22; payments, 75 per cent. as work progresses 1st day of each month; balance, 35 days.

Oregon and Drumm. Two-story brick; owner, Jas. G. Fair; architect, H. A. Schulze; contractor, Wm. Cronan; cost, \$1,800; signed, June 18; filed, June 22; payments, 75 per cent. as work progresses, 1st day of each month; balance, 35 days.

Oregon and Drumm. Cast iron work; owner, Jas. G. Fair; architect, H. A. Schulze; contractor, Henry Ralston; cost, \$5,450; signed, June 15; filed, June 22; payments, 75 per cent. as work progresses, 1st day of each month; balance, 35 days.

Pacific near Hyde. Three-story flat; owner, Jas. Lomelino; architect, W. C. Dickerson; contractor, John Strand; cost, \$4,100; signed, June 18; filed, June 21; payments, \$800, frame up; \$1,200, enclosed and brown mortar on; \$1,100, completed; \$1,000, 35 days.

Pacific Ave. near Broderick. Alterations and additions; owner, Clara E. Cunningham; architect, Clinton Day; contractor, C. Chisholm; cost, \$10,100; signed, June 6; filed, June 7; payments, \$2,500, sheathed and roof ready for tile; \$2,000, brown mortar on and house primed; \$3,075, completed; \$2,525, 35 days.

Page and Clayton. Two-story frame; owner, C. Knickerbocker; contractor, Frank Williams; cost, \$2,200; signed, June 14; filed, June 18; payments, \$2,200; 35 days.

Park Ave. near City Hall Ave. To build; owner, Eliza Baum; architects, Townsend & Wyneken; contractor, J. H. Wilson; cost, \$2,300; signed, June 14; filed, June 14; payments, \$500, wall ready for ceiling joists; \$800, brown mortar on; \$800, completed; \$800, 35 days.

Park Road near Park Hill Ave. Carpenter, brick and mill work; owner, Sister M. Orioli; architects, Shea & Shea; contractor, Hugh Foote; cost, \$1,150; signed, May 25; filed, May 27; payments, \$965, frame up; \$965, enclosed and roof on; \$965, tanks in position and outside finish on; \$965, completed; \$1,288, 35 days.

Pennsylvania Ave. near Colusa. One-story frame; owner, Michael Daly; contractor, J. F. Coleman; cost, \$1,350; signed, June 4; filed, June 6; payments, \$200, frame up and rustic on; \$200, enclosed; \$200, plastered; \$400, completed; \$550, 35 days.

Pierce near Turk. Frame cottage; owner, Emma J. Smith; architect, A. J. Barnett; contractor, John Miron; cost, \$1,000; signed, June 9; filed, June 16; payments, \$475, roof boards and rustic on; \$475, brown coat and outside finish on; \$475, completed; \$475, 35 days.

Post near Powell. Carpenter, stairwork, etc.; owner, A. Aronson; architects, C. R. & J. M. Wilson; contractor, J. R. Whalen; cost, \$8,941; signed, May 31; filed, May 31; payments, \$1,500, roof ready for tinning; \$1,500, brown mortar on; \$2,000, inside finish on; \$1,705.75, completed; \$2,255.25, 35 days.

Post near Powell. Cast wrought iron work, etc.; owner, A. Aronson; architects, C. R. & J. M. Wilson; contractor, C. Ferris; cost, \$11,400; signed, May 31; filed, May 31; payments, \$2,000, basement walls up and columns set; \$2,000, May 31; payments, \$4,850, 1st story walls up; \$1,000, 3rd story walls up; \$1,000, 4th story walls up; \$500, firewalls up; \$500.50, completed; \$2,886.50, 35 days.

Powell near Sacramento. Three-story frame and alterations; owner, Washington Nevin; contractors, Childs & Chatham; cost, \$5,000; signed, June 1; filed, June 2; payments, \$433, old house moved and finished; \$1,120, building enclosed; \$1,121, brown mortar on; \$1,121, completed; \$1,265, 35 days.

Pacific near Powell. Two-story frame; owner, Mrs. H. Dunn; architects, John & Balezynski; contractor, Peter Johnson; cost, \$2,655; signed, June 6; filed, June 6; payments, \$500, frame up; \$500, enclosed and partitions set; \$500, plastered; \$475, accepted; \$680, 35 days.

Rincon Place and Harrison. Carpenter work and excavations; owner, Charles Chaffers; contractors, McLeod & McLain; cost, \$3,373; signed, May 21; filed, June 3; payments, \$843, frame up; \$843, brown mortar on; \$843, completed; \$844, 35 days.

Sacramento near Hyde. Excavation, brick and patent chimney; owner, Ed. Walsh; architects, Shea & Shea; contractors, Martin Fenell & Son; cost, \$1,272; signed, June 11; filed, June 13; payments, \$800, foundations complete; \$572, chimneys finished; \$100, completed.

Sacramento near Hyde. Two-story frame; owner, Ed. Walsh; architects, Shea & Shea; contractor, Geo. Weismann; cost, \$14,150; signed, June 9; filed, June 13; payments, \$2,344, frame up and rafters on; \$2,344, brown mortar on; \$2,344, hard finish on; \$2,355, completed; \$3,113, 35 days.

Sacramento near Maple. Frame cottage with basement; owner, John L. Ballant; contractors, S. C. Murrey & Co.; cost, \$1,540; signed, June 16; filed, June 21; payments, \$300, frame up; \$400, brown mortar; \$400, completed; \$400, 35 days.

Sacramento near Pierce. Alterations and additions; owner, Benjamin Moore; architect, Fred B. Wood; contractor, Robert Currier; cost, \$6,007; signed, June 13; filed, June 16; payments, \$1,200, grading, carpenter work on Sacramento street front completed, rear building moved and raised, lot graded and brick work done; \$1,250, frame of new house up and roof on; \$1,250, outside completed, brown mortar on and building primed; \$1,250, completed; \$1,727, 35 days.

Sacramento near Yerba Buena. Three-story frame; owner, W. Nielson; architects, John & Balezynski; contractor, F. L. Hansen; cost, \$3,385; signed, June 17; filed, June 18; payments, \$1,000, frame up; \$950, floors laid and partitions set; \$1,000, plastered; \$1,000, completed; \$1,255, 35 days.

Scott near Geary. Painting of interior; owner, Board of Education; architect, T. J. Walsh; contractor, J. M. Sindlinger; cost, \$1,075; signed, June 1; filed, June 1; payments, 75 per cent. of work done on 1st and 15th day of each month; balance, 35 days.

Seventh and Folsom. Three-story frame; owner, Mrs. J. Cushing; architect, A. W. Pathart; contractors, Childs & Chatham; cost, \$15,923; signed, June 13; filed, June 15; payments, \$2,500, frame up; \$2,000, enclosed and chimneys built; \$2,000, brown mortar on and window frames set; \$2,000, plastered; \$8,425, completed; \$4,000, 35 days.

Sixth Ave. near Clement. Frame cottage; owner, W. L. Ferguson; contractor, W. H. Mead; cost, \$1,400; signed, June 13; filed, June 17; payments, \$300, frame up; \$300, brown coated; \$400, completed; \$400, 35 days.

Sixteenth Ave. near Post. One-story and basement; owner, C. Buckley; architect, J. J. Clark; contractor, W. J. B. Warner; cost, \$1,485; signed, June 13; filed, June 13; payments, \$750, enclosed; \$750, brown mortar on; \$750, completed; \$750, 35 days.

South Park near 3rd. Three-story frame; owner, N. K. Masten; contractor, Caspar Zwickler; cost, \$6,900; signed, May 25; filed, June 2; payments, \$1,057, enclosed; \$1,057, brown mortar on; \$1,057, plastered and outside finish up; \$1,089, completed; \$1,450, 35 days.

Stanyon near Page. Two-story frame; owner, Frederick Hess; architect, S. Hatfield; contractor, A. W. Smith; cost, \$3,075; signed, June 2; filed, June 4; payments, \$950, enclosed; \$950, brown mortar on; \$950, plastered; \$955, accepted; \$1,270, 35 days.

Stewart near Mission. Alterations and additions; owner, Jas. McKenna; architect, D. E. Mellis; contractors, Darby, Laydon & Co.; cost, \$1,075; signed, May 28; filed, June 3; payments, 75 per cent. when pile driving has been completed on adjoining lot; 25 per cent. 30 days.

Stuart near Mission. A pile foundation; owner, P. M. Partridge; architect, D. E. Mellis; contractors, Darby, Laydon & Co.; cost, \$4,000; signed, May 28; filed, June 3; payments, 75 per cent. 30 days after date of this contract according to work done; 25 per cent. 35 days.

Stewart near Mission. Concrete work; owner, P. M. Partridge; architect, D. E. Mellis; contractors, Ransome & Cushing; cost, \$1,775; signed, June 1; filed, June 3; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Stewart near Mission. Carpenter work; owner, P. M. Partridge; architect, D. E. Mellis; contractor, Thos. H. Day; cost, \$10,130; signed, June 1; filed, June 3; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Stevenson near 4th. Alterations and additions; owner, Jas. Westall; architect, Wm. Curlett; contractor, Wm. Linden; cost, \$3,149; signed, June 22; filed, June 23; payments, \$500, brick work done and rising done; \$500, roof on; \$500, brown mortar on; \$500.75, completed; \$575.25, 35 days.

Sunnyside, block 42, lot 42. Carpenter, brick work, etc.; owner, Wm. Ingarten; architect

The *Union* is a staunch friend to the interests that tend to build up and develop this section of the Coast. The section around and back of Sacramento is especially adapted for manufacturing. We shall touch upon this subject again in the future.

ARCHITECTS AND STEAM PLANTS.

AN engineer says: "I wonder why it is that architects, in their plans and specifications for office and other large buildings, pay such little attention to adequate accommodations for the steam plant. I have in mind a building recently completed in this city, of magnificent proportions and splendidly finished, having everything within its walls that modern ingenuity has devised for the convenience of office men, yet when the building was fairly under way and the proprietors began to look around for their steam equipment, they had to entirely change their plans in that particular, for the reason that the space allotted for the engine room would not permit them to carry out their original designs. The room was too cramped altogether, and instead of putting in one or two large engines with capacity sufficient to furnish the power required, they were compelled to place nearly four times that number of a different type of engine, small enough to fit in the small apartments set aside for that purpose. Now, isn't that all wrong? Why, it looks like some of these architects do not regard the steam plant as at all worthy of consideration in making their calculations, yet nothing is more important, for light, heat and transfer facilities are dependent upon it, and if these do not work right and give satisfaction to the occupants, the building will lose its reputation for good management, and untenanted rooms will be the consequence. The sooner this fact is recognized by our architects the better, and the sooner will they become entitled to the good regards of all those who in one way or another are interested in the efficiency and proper arrangement of the steam plant."—*Age of Steel.*

SCOPE AND HISTORICAL DEVELOPMENT OF THE SCIENCE OF "TIMBER PHYSICS."

BY B. E. FERNOW, CHIEF OF FORESTRY DIVISION.

Continued from page 65.

WHENEVER human knowledge in any particular direction has grown to such an extent and complexity as to make it desirable for greater convenience and better comprehension to group it, correlate its parts, and organize them into a systematic whole, we may dignify such knowledge by a collective name as a new science or branch of science. The need of such organization is especially felt when a more systematic progress in accumulating new knowledge is contemplated. In devising, therefore, the plans for a systematic and comprehensive examination of our woods it has appeared desirable to establish a system under which is to be organized all the knowledge we have or may acquire of the nature and behavior of wood.

To this new branch of natural science I propose to give the name of "timber physics," a term which I have used first in my Report for 1887, when, in devising a systematic plan of forestry science, the absence of a collective name for this class of knowledge became apparent.

While forest biology contemplates the forest and its components in their *living condition*, we comprise in timber physics all phenomena exhibited in the *dead material* of forest production.

The practical application of timber or wood for human use, its technology, is based upon the knowledge of timber physics, and under this term we comprise not only the anatomy, the chemical composition, the physical and mechanical properties of wood, but also its diseases and defects, and a knowledge of the influences and conditions which determine structure, physical, chemical, mechanical, or technical properties and defects. This comprehensive science, conceived under the name here chosen, although developed more or less in some of its parts, has never yet been dignified by a special name, nor has a systematic ar-

range of its parts been attempted before. It comprises various groups of knowledge derived from other sections of science, which are neither in themselves nor in their relations to each other fully developed.

While plant physiology, biology, chemistry, anatomy, and especially xylotomy, or the science of wood structure, are more or less developed and contribute toward building up this new branch of science, but little knowledge exists in regard to the interrelation between the properties of wood on one side and the modifications in its composition and structure on the other. Even the relation of the properties of various woods, as compared with each other, and their distinct specific peculiarities is but little explored and established. Less knowledge still exists as to the relation of the conditions which surround the living tree to the properties which are exhibited in its wood as a result of its life functions. Suppositions and conjectures more or less plausible preponderate over positive knowledge derived from exact observation and from the results of experiments. Still less complete is our knowledge in regard to the relation of properties and the methods and means used for shaping or working the wood.

The close interrelation of all branches of natural science is now so well organized that I need not remind my readers that hard and fast lines cannot be drawn, whereby each field of inquiry is confined and limited; there must necessarily be an overlapping from one to the other. Any system, therefore, of dividing a larger field of inquiry into parts is only a matter of convenience; its divisions and correlations must be to some extent arbitrary and varied, according to the point of view from which we proceed to divide and correlate.

There are two definite and separate directions in which this branch of natural science needs to be developed, and the knowledge comprised in it may be divided accordingly. On one side it draws its substance largely from the more comprehensive fields of botany, molecular physics, and chemistry, and on the other side it rests upon investigations of the wood material from the point of view of mechanics or dynamics. In the first direction we are led to deal with the wood material as it is, its nature or appearance and *condition*; in the second direction we consider the wood material in relation to external mechanical forces, its *behavior* under stress.

The first part is largely descriptive, concerned in examining gross and minute structures, physical and chemical conditions and properties, and ultimately attempting to explain these by referring to causes and conditions which produce them. This is a field for investigation and research by the plant physiologist in the laboratory in connection with studies of environment in the forest. The second part, which relies for its development mainly upon experiment by the engineer, deals with the properties which are a natural consequence of the structure, physical condition, and chemical composition of the wood as exhibited under the application of external mechanical forces. It comprises, therefore, those studies which contemplate the wood substance, with special reference to the uses of man, and forms ultimately the basis for the mechanical technology of wood or the methods of its use in the arts.

The correlation of the result of these two directions of study as cause and effect is the highest aim and ultimate goal, the philosophy of the science of timber physics. Timber physics, in short, is to furnish all necessary knowledge of the rational application of wood in the arts, and at the same time, by retrospection, such knowledge will enable us to produce in our forest growth qualities of given character.

Conceived in this manner it becomes the pivotal science of the art of forestry, around which the practice both of the consumer and producer of forest growth moves.

The first part of our science would require a study into gross and minute anatomy, the structure of the wood, form, dimensions, distribution, and arrangement of its cell elements and of groups of structural parts, not only in order to distinguish the different woods, but also to furnish the basis for an explanation of their physical and mechanical properties. We next would class here all investigations into the physical nature or properties of the wood material, which necessarily also involves an investigation into the change of these

properties under varying conditions and influences. A third chapter would occupy itself with the chemical composition and properties of woods and their changes in the natural process of life, which predicate the fuel value and durability as well as the use of the wood in chemical technology.

Although, philosophically speaking, it would hardly seem admissible to distinguish between physical and mechanical properties or to speak of "mechanical" forces, for the sake of convenience and practical purposes it is desirable to make the distinction and to classify all phenomena and changes of non-living bodies, or bodies without reference to life functions, into chemical, physical, and mechanical phenomena and changes. As chemical phenomena or changes, and therefore also conditions or properties, we class, then, those which have reference to atomic structure; as physical phenomena changes and properties, those which refer to and depend on molecular arrangement; and as mechanical (molar) changes and properties those which concern the masses of bodies, as exhibited under the influence of external forces, without altering their physical or chemical constitution.

There is no doubt that this division is somewhat forced, since not only most or all mechanical (as here conceived) changes are accompanied or preceded by certain alterations of the interior molecular arrangement of the mass, but also many physical phenomena or properties, like density, weight, shrinkage, having reference to the mass, might be classed as mechanical; yet, if we conceive that physical phenomena are always concerned with the "quantity of matter in molecular arrangement" and with the changes produced by interior forces, while the latter are concerned rather with the "position of matter in molecular arrangement" and with changes under application of exterior forces, the distinction assumes a practical value.

Our conception of these distinctions will be aided if we refer to the physical laboratory as furnishing the evidence of physical phenomena, and to the mechanical laboratory as furnishing evidence of mechanical phenomena.

These latter, then, form the subject of our second or dynamic part of timber physics, which concerns itself to ascertain mainly by experiment, called tests, under application of the laws of elasticity, the strength of the material and other properties which are exhibited as reactions to the influence of applied stresses, and those which need consideration in the mechanical use of the material in the various arts.

Having investigated the material in its normal condition, we would necessarily come to a consideration of such physical and chemical conditions of the material as are abnormal and known as disease, decay, or defects.

Finally, having determined the properties and their changes as exhibited in material produced under changing conditions or differing in physical and structural respects, it would remain the crowning success and goal of this science to relate mechanical and physical properties with anatomical and physiological development of the wood substance.

THE SUBLIME AND BEAUTIFUL.

By Edmund Burk.

Published about 1753.

PART I.—NOVELTY.

THE first and the simplest emotion which we discover in the human mind, is Curiosity. By curiosity I mean whatever desire we have for, or whatever pleasure we take in, novelty. We see children perpetually running from place to place, to hunt out something new: they catch with great eagerness, and with very little choice, at whatever comes before them; their attention is engaged by everything, because everything has, in that stage of life, the charm of novelty to recommend it. But as those things, which engage us merely by their novelty, cannot attach us for any length of time, curiosity is the most superficial of all the affections; it changes its object per-

petually, it has an appetite which is very sharp, but very easily satisfied; and it has always an appearance of giddiness, restlessness and anxiety. Curiosity, from its nature, is a very active principle; it quickly runs over the greatest part of its objects, and soon exhausts the variety which is commonly to be met with in nature; the same things make frequent returns, and they return with less and less of any agreeable effect. In short, the occurrences of life, by the time we come to know it a little, would be incapable of affecting the mind with any other sensations than those of loathing and weariness, if many things were not adapted to affect the mind by means of other powers besides novelty in them, and of other passions besides curiosity in ourselves. These powers and passions shall be considered in their place. But whatever these powers are, or upon what principle soever they affect the mind, it is absolutely necessary that they should not be exerted in those things which a daily and vulgar use have brought into a stale uninteresting familiarity. Some degree of novelty must be one of the materials in every instrument which works upon the mind; and curiosity blends itself more or less with all our passions.

PAIN AND PLEASURE.

It seems then necessary towards moving the passions of people advanced in life to any considerable degree, that the objects designed for that purpose, besides their being in some measure new, should be capable of exciting pain or pleasure from other causes. Pain and pleasure are simply ideas, incapable of definition. People are not liable to be mistaken in their feelings, but they are very frequently wrong in the names they give them, and in their reasonings about them. Many are of opinion that pain arises necessarily from the removal of some pleasure; as they think pleasure does from the ceasing or diminution of some pain. For my part, I am rather inclined to imagine that pain and pleasure, in their most simple and natural manner of affecting, are each of a positive nature, and by no means necessarily dependent on each other for their existence. The human mind is often, and I think it is for the most part, in a state neither of pain nor pleasure, which I call a state of indifference. When I am carried from this state into a state of actual pleasure, it does not appear necessary that I should pass through the medium of any sort of pain. If in such a state of indifference, or ease or tranquillity, or call it what you please, you were to be suddenly entertained with a concert of music; or suppose some object of a fine shape, and bright, lively colors, to be presented before you; or imagine your smell is gratified with the fragrance of a rose; or if without any previous thirst you were to drink of some pleasant kind of wine, or to taste of some sweetmeat without being hungry; in all the several senses, of hearing, smelling, and tasting, you undoubtedly find a pleasure; yet if I inquire into the state of your mind previous to these gratifications, you will hardly tell me that they found you in any kind of pain; or, having satisfied these several senses with their several pleasures, will you say that any pain has succeeded though the pleasure is absolutely over? Suppose, on the other hand, a man in the same state of indifference, to receive a violent blow, or to drink of some bitter potion, or to have his ears wounded with some harsh and grating sound; here is no removal of pleasure; and yet here is felt in every sense which is affected, a pain very distinguishable. It may be said perhaps, that the pain in these cases had its rise from the removal of the pleasure which the man enjoyed before, though that pleasure was of so low a degree as to be perceived only by the removal. But this seems to me subtilty that is not discoverable in nature. For if, previous to the pain, I do not feel any actual pleasure, I have no reason to judge that any such thing exists: since pleasure is only pleasure as it is felt. The same may be said of pain, and with equal reason. I can never persuade myself that pleasure and pain are mere relations, which can only exist as they are contrasted; but I think I can discern clearly that there are positive pains and pleasures, which do not at all depend upon each other. Nothing is more certain to my own feelings than this. There is nothing which I can distinguish in my mind with more clearness than the three states, of indifference, of pleasure, and of pain. Every one of these I can perceive without

any sort of idea of its relation to anything else. Caius is afflicted with a fit of the colic; this man is actually in pain; stretch Caius upon the rack, he will feel a much greater pain; but does this pain of the rack arise from the removal of any pleasure? or is the fit of the colic a pleasure or a pain, just as we are pleased to consider it? * * *

OF THE SUBLIME.

Whatever is fitted in any sort to excite the ideas of pain and danger, that is to say, whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion which the mind is capable of feeling. I say the strongest emotion, because I am satisfied the ideas of pain are much more powerful than those which enter on the part of pleasure. Without all doubt, the torments which we may be made to suffer are much greater in their effects on the body and mind than any pleasures which the most learned voluptuary could suggest, or than the liveliest imagination, and the most sound and exquisitely sensible body, could enjoy. * * * But as pain is stronger in its operation than pleasure, so death is in general a much more affecting idea than pain; because there are very few pains, however exquisite, which are not preferred to death: nay, what generally makes pain itself, if I may say so, more painful, is, that it is considered as an emissary of this kind of terrors. When danger or pain presses too nearly, they are incapable of giving any delight, and are simply terrible; but at certain distances, and with certain modifications, they may be, and they are, delightful, as we every day experience. The cause of this I shall endeavor to investigate hereafter. * * *

IMITATION.

The second passion belonging to society is imitation, or, if you will, a desire of imitating, and consequently a pleasure in it. This passion arises from much the same cause with sympathy. For as sympathy makes us take a concern in whatever men feel, so this affection prompts us to copy whatever they do; and consequently we have a pleasure in imitating, and in whatever belongs to imitation merely as it is such, without any intervention of the reasoning faculty, but solely from our natural constitution, which Providence has framed in such a manner as to find either pleasure or delight, according to the nature of the object, in whatever regards the purposes of our being. It is by imitation far more than by precept that we learn everything; and what we learn thus, we acquire not only more effectually, but more pleasantly. This forms our manners, our opinions, our lives. It is one of the strongest links of society; it is a species of mutual compliance, which all men yield to each other, without constraint to themselves, and which is extremely flattering to all. Herein it is that painting and many other agreeable arts have laid one of the principal foundations of their power. And since, by its influence on our manners and our passions, it is of great consequence, I shall here venture to lay down a rule, which may inform us with a good degree of certainty when we are to attribute the power of the arts to imitation, or to our pleasure in the skill of the imitator merely, and when to sympathy, or some other cause in conjunction with it. When the object represented in poetry or painting is such as we could have no desire of seeing in the reality, then I may be sure that its power in poetry or painting is owing to the power of imitation, and to no cause operating in the thing itself. So it is with most of the pieces which the painters call still-life. In these a cottage, a dunghill, the meanest and most ordinary utensils of the kitchen, are capable of giving us pleasure. But when the object of the painting or poem is such as we should run to see if real, let it affect us with what odd sort of sense it will, we may rely upon it that the power of the poem or picture is more owing to the nature of the thing itself than to the mere effect of imitation, or to a consideration of the skill of the imitator, however excellent. Aristotle has spoken so much and so solidly upon the force of imitation in his Poetics, that it makes any further discourse upon this subject the less necessary. * * *

To be Continued.

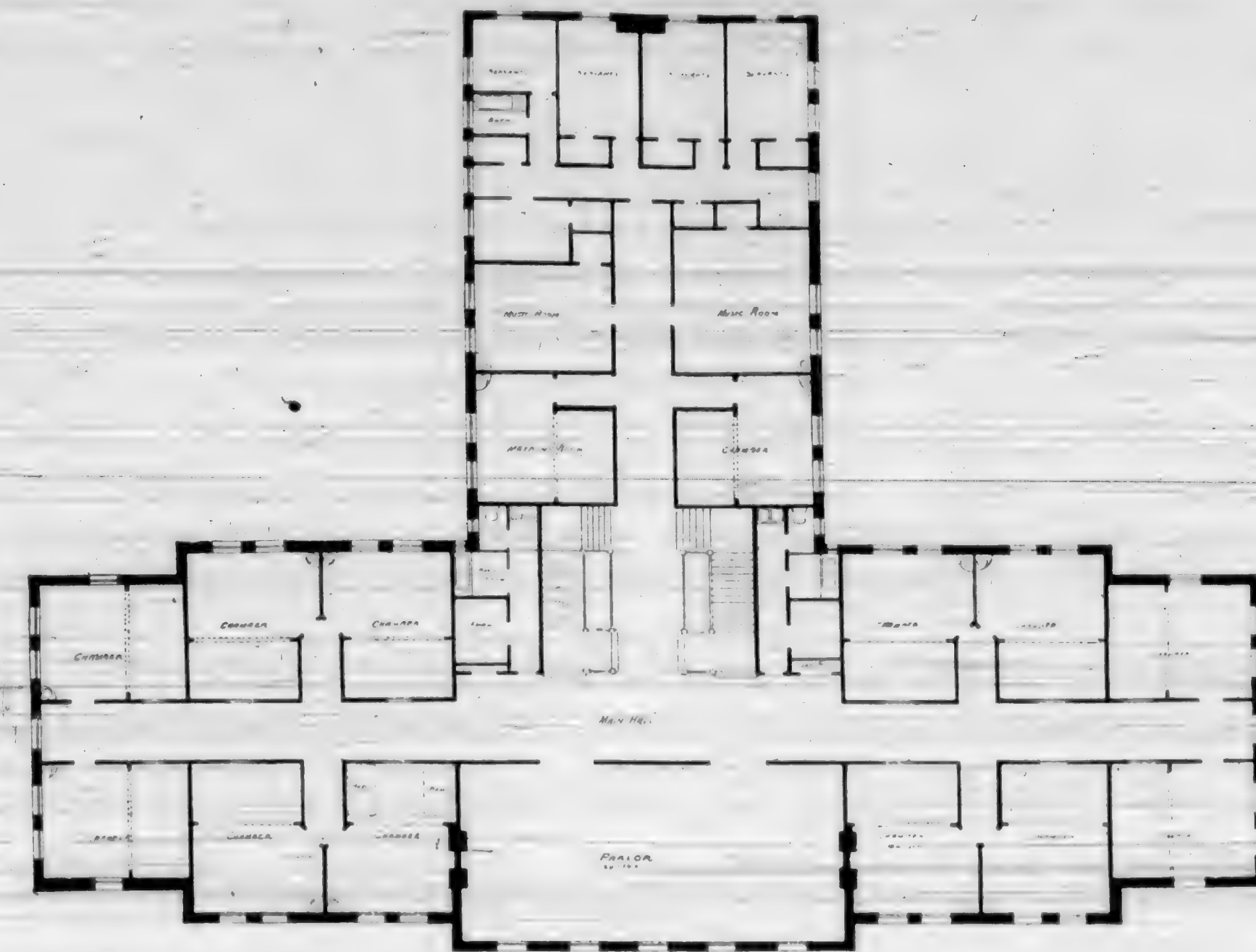
MYTHOLOGY.

AMAZONES or AMAZONIDES, a nation of famous women who lived near the river Thermodon in Cappadocia. All their life was employed in wars and manly exercises. They never had any commerce with the other sex; but, only for the sake of propagation, they visited the inhabitants of the neighbouring country for a few days, and the male children which they brought forth were given to the fathers. According to Justin, they were strangled as soon as born, and Diodorus says that they maimed them and distorted their limbs. The females were carefully educated with their mothers, in the labors of the field; their right breast was burnt off that they might hurl a javelin with more force, and make a better use of the bow; from that circumstance, therefore, their name is derived (*a non, uaza mamma*). They founded an extensive empire in Asia Minor, along the shores of the Euxine, and near the Thermodon. They were defeated in a battle near the Thermodon, by the Greeks; and some of them migrated beyond the Tanais, and extended their territories as far as the Caspian sea. The-myseya was the most capital of their towns; and Smyrna, Magnesia, Thyatira, and Ephesus, according to some authors, were built by them. Diodorus, I. 3, mentions a nation of Amazons in Africa, more ancient than those of Asia. Some authors, among whom is Strabo, deny the existence of the Amazons, and of a republic supported and governed by women, who banished or extirpated all their males; but Justin and Diodorus particularly support it; and the latter says, that Penthesilea, one of their queens, came to the Trojan war on the side of Priam, and that she was killed by Achilles, and from that time the glory and character of the Amazons gradually decayed, and was totally forgotten. The Amazons of Africa flourished long before the Trojan war, and many of their actions have been attributed to those of Asia. It is said, that after they had subdued almost all Asia, they invaded Attica, and were conquered by Theseus. Their most famous actions were their expedition against Priam, and afterwards, the assistance they gave him during the Trojan war; and their invasion of Attica, to punish Theseus, who had carried away Antiope, one of their queens. They were also conquered by Bellerophon and Hercules. Among their queens, Hippolyte, Antiope, Lampeto, Marpesia, etc., are famous. Curtius says, that Thalestris, one of their queens, came to Alexander, whilst he was pursuing his conquests in Asia, for the sake of raising children from a man of such military reputation; and that after she had remained thirteen days with him, she retired into her country. The Amazons were such expert archers, that, to denote the goodness of a bow or quiver, it was usual to call it Amazonian.

Near Marysville they have discovered a mine of hydraulic lime and near by a body of silicious earth, and a company has been formed to manufacture cement.

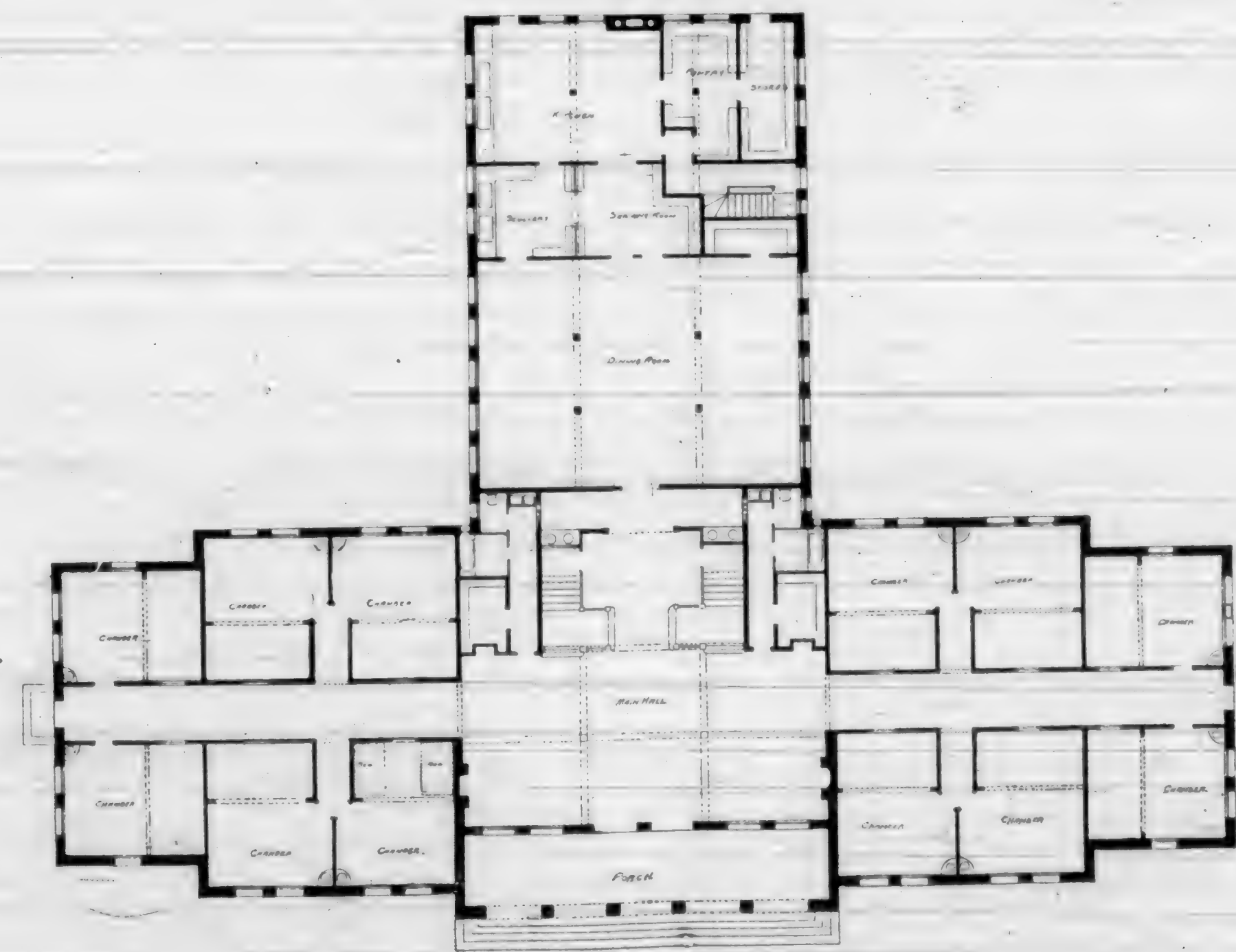
In territorial area the United States ranks third. Great Britain controls 8,557,000 square miles of territory, Russia, 8,452,940 miles, and the United States, counting Alaska, 3,580,242 miles.

The new labor law of New Jersey went into effect in July. It provides that fifty-five hours shall constitute a week's work, and it makes Saturday afternoon a holiday. On other days ten hours is a working day.

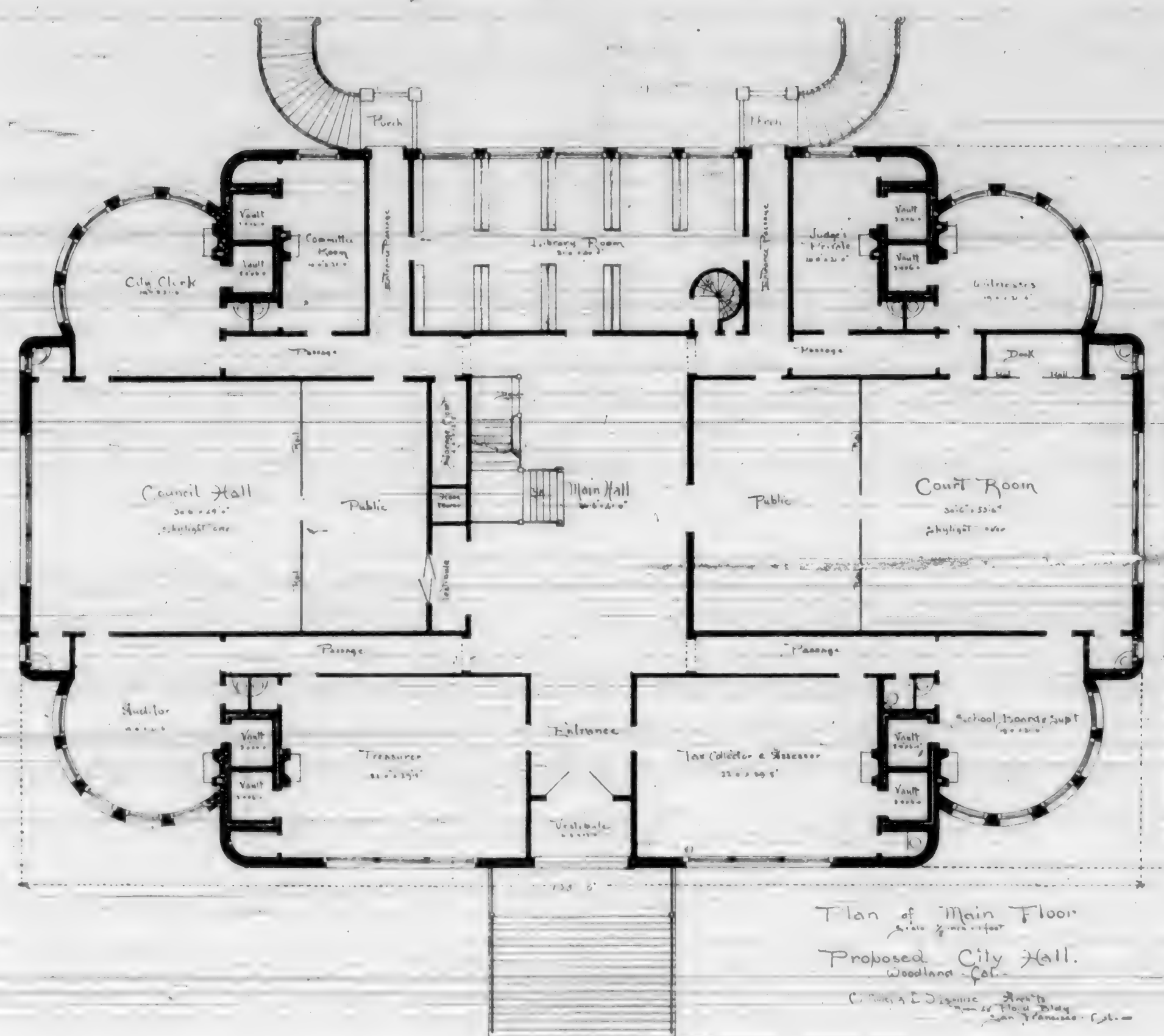


SECOND FLOOR PLAN.

THE plans herewith show the general arrangement of the main and second floors of Roble Hall, Girls' Dormitory, lately erected at the Stanford University, and will accommodate eighty pupils. This building is built of concrete and was erected and finished complete within ninety days from the order to prepare the plans. This is working with a rapidity unusual in buildings of such dimensions.



FIRST STORY PLAN.



PLAN OF CITY HALL, WOODLAND.



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 sketch No. 2 of a building and landscape was worked out by Mr. Clarkson Swain. These sketches are three in number and so picturesquely delineated as to furnish artistic ideas to designers for rural buildings.

The remaining sketch will appear in a later number.

THE New City Hall at Woodland, Cal., is from designs by Messrs. Colley & Lemme, Architects, San Francisco.

THE design for the residence in course of erection for D. B. Jackson, Esq., is by Mr. Wm. H. Armitage, Architect, of this city.

ROBLE HALL, Stanford University.—The building "Roble Hall" (Oak Hall) or Girls Dormitory is built on the grounds of the Leland Stanford, Jr., University at Palo Alto, and is situated immediately north of the central quadrangle. The building is 175 feet long by a depth of 118 feet, is three stories high and will accommodate 80 pupils, besides the usual attendants.

The exterior walls are built of concrete, colored yellow to match the stone of the other buildings and built in a manner similar to the museum building of the University, the greatest piece of concrete building construction of modern years. The roof is covered with metallic shingles in imitation of the old tile work of early California buildings.

The floors throughout are finished with wax, the building being finished in a most thorough manner.

The dormitory was erected and ready for occupancy within 90 days from the time the order was given to prepare plans. Messrs. Percy & Hamilton, Architects, San Francisco.

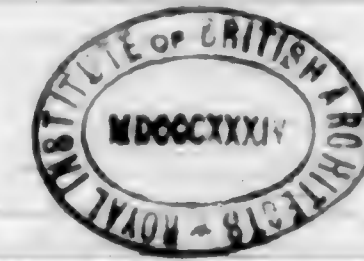


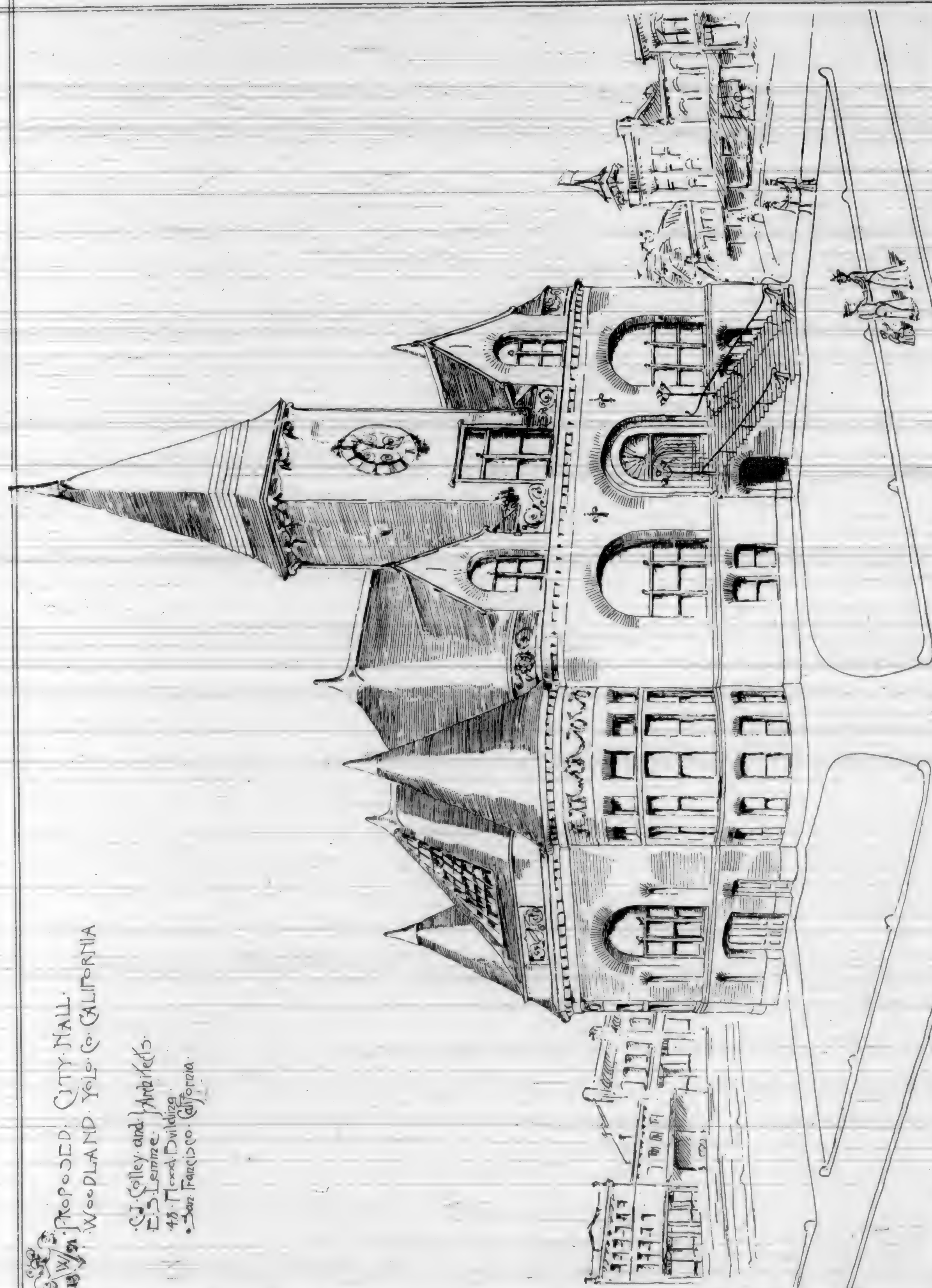


GIRLS' DORMITORY - PERCY & HAMILTON, ARCHT.
LELAND STANFORD JUNIOR UNIVERSITY.
PALO ALTO: CAL.

BRITTON & REY PHOTO LITH.

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





PROPOSED CITY HALL.
WOODLAND, YOLO CO. CALIFORNIA

C. J. Colley and J. Antkowiak
ES. LEVIN
437 Third Building
San Francisco, California

BRITTON & REY PHOTO LITH.

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



THREE SKETCHES
from a
ALEXANDER.
No 2.

Swain.

BRITTON & REY PHOTO LITH.

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

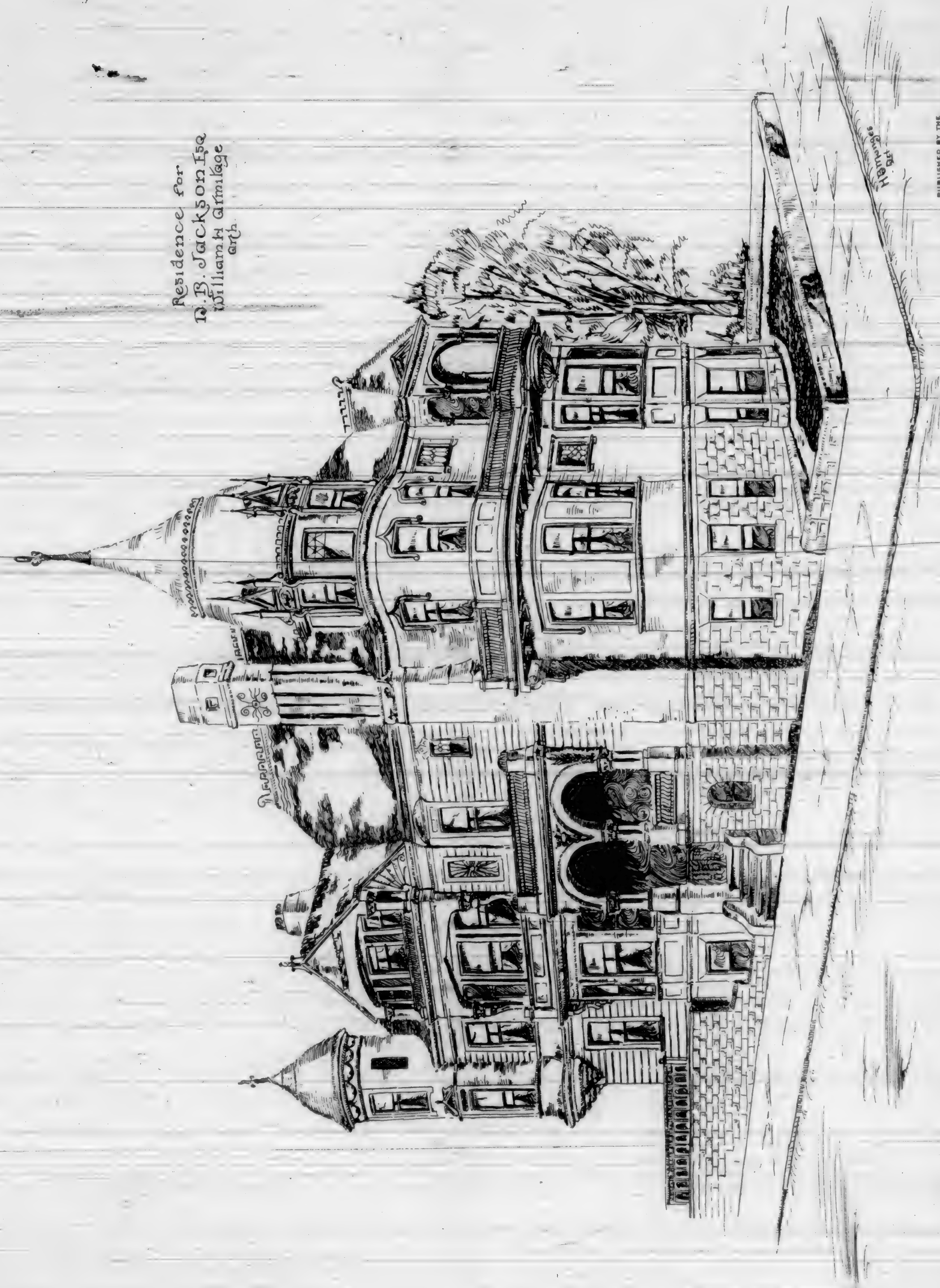


AUGUST 1892.

THE CALIFORNIA ARCHITECT AND BUILDING NEWS.

VOL. XIII. NO. 8.

Residence for
W. B. Jackson Esq
William H. Girmage
archt



BRITTON & KEY 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. 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. L. CROSETT, Sec. O. BROOKS, Treas.

SEMI-ANNUAL SUMMARY OF BUILDING OPERATIONS.

The first six months of this year has not been as prosperous as the indications at the beginning of the year promised. By a comparison with former years the contracts filed foot up less than for the last year.

FOR FIRST SIX MONTHS—1892.

	No. of Buildings	No. of Contracts	Brick Building Value	No. of Buildings	No. of Contracts	Frame Building Value	No. of Buildings	No. of Contracts	Alterations & Additions Value	No. of Buildings	No. of Contracts	Total Value.
January	1	14	\$ 101,872	22	33	\$ 210,865	4	4	\$ 7,872	27	1	\$ 320,409
February	3	8	116,310	28	50	279,139	7	8	24,818	38	66	420,277
March	2	8	72,471	30	38	175,071	5	7	14,494	37	83	262,439
April	1	22	335,359	46	63	240,772	5	6	20,890	55	91	596,961
May	3	17	137,715	46	52	271,200	4	5	21,475	53	74	430,390
June	3	9	139,022	39	54	222,110	13	13	51,291	55	76	412,423
Total	16	78	\$ 902,740	211	290	\$1,398,967	38	43	\$140,780	205	411	\$2,442,496

To this amount the further sum of \$500,000 should be added for work done where no contracts have been filed, which would increase the sum total to \$2,942,496.

FOR FIRST SIX MONTHS—1891.

	No. of Buildings	No. of Contracts	Brick Building Value	No. of Buildings	No. of Contracts	Frame Building Value	No. of Buildings	No. of Contracts	Alterations & Additions Value	No. of Buildings	No. of Contracts	Total Value.
January	3	10	\$ 98,106	30	45	\$ 174,304	6	7	\$ 14,415	39	62	\$ 286,725
February	5	21	305,554	33	32	130,661	5	6	23,151	43	59	459,319
March	7	16	221,001	48	58	333,075	13	14	53,586	68	88	607,462
April	3	8	119,192	50	80	372,799	12	11	41,390	65	102	635,281
May	3	14	238,369	49	79	238,793	15	17	100,165	67	110	677,947
June	5	23	211,032	88	123	635,499	16	16	42,358	109	162	888,389
Total	24	92	\$1,063,874	298	417	\$1,945,034	67	74	\$278,065	391	583	\$3,416,973

The business of the first six months for several years is shown by the following table.

1885—754 contracts.....	value, \$4,267,375
1886—670 ".....	" 2,486,633
1887—516 ".....	" 3,269,914
1888—437 ".....	" 2,719,820
1889—546 ".....	" 3,910,600
1890—556 ".....	" 3,793,858
1891—583 ".....	" 3,916,973
1892—411 ".....	" 2,942,496

In 1885 business was usually heavy. The first six months of this year shows an excess over 1886 and 88, and a decrease from 1889-90 and 91. The months of July and August will show about the same as the same months of last year. The prospect of a good fall trade appears to be good.



THE AMERICAN MONTHLY MICROSCOPIC JOURNAL for July has a chapter on Microscopical Illustrations; also many other papers of interest to workers in that line of science.

We have received the Annual Report of the SMITHSONIAN INSTITUTION and of the NATIONAL MUSEUM at Washington, D. C., for the years 1889 and 1890.

INDUSTRY, San Francisco, for August, has several chapters which present matters of interest to architects and engineers.

THE PHOTOGRAPHIC TIMES for July 15th and 22d, contains an article on "the diaphragm," giving much useful information to the operator. Where the usual circular opening is used, the writer proposes to set the diaphragm at an angle, viz., the top outward and the bottom inward from the usual vertical position, in which case it can be easily understood how the rays from the sky would be reduced while the ground on lower rays would be increased; thus the light reflected from a landscape would be equalized on the sensitive plate. The equalizing effect of a triangular opening in the diaphragm is also considered.

LIPPINCOTT'S for August contains a number of interesting articles. The department called "As It Seems" discusses the popular sentiment wasted on prisoners to the forgetfulness of the honest poor.

We give one of the short chapters:

REFORM BY REACTION.

"The root of the trouble is in our ethical ideas, which have come to be askew and top-heavy. The quality of mercy is not strained,"—but it often needs to be. As in divinity, 'a God all mercy were a God not just,' so in our morals and jurisprudence, the bottom is in danger of dropping out when compassion intrudes into the primary place of justice. Humanity and philanthropy are fine things, but like other fine things they are liable to be overdone. If our plea is reactionary, it may be urged that when we have gone too far forward, the only thing to do is to go back a little. It should be remembered that an honest man is better any day than a rogue, and he who loves his neighbor as himself is entitled to more consideration than he who is too handy with bludgeon, knife, or pistol.

THE COSMOPOLITAN for August contains an article on "Bridges and Bridge Builders," by Peter MacQueen. Also one on "A California Farm Village." The illustrations look very "home like" to a resident of this section of the country.

THE FORTNIGHTLY REVIEW deals with the "Servant Question," by MARY JEUNE. ALFRED BINET contributes an article on "Mental Imagery."

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.

NOTICE REQUISITE FOR MECHANIC'S LIEN IN INDIANA.—Where in Indiana a contract was made and materials for it were furnished to the contractor part before the notice to the owner and part after such notice under Elliott's Supplement, section 1692, providing that a person furnishing materials for a contractor, to acquire a lien, must give notice to the owner at or before the time the materials are furnished, a lien would be acquired only for such part of the materials as were furnished after notice.

Hubbard v. Moore, Supreme Court of Indiana, 31 N. E. Rep. 534, 82 C.

PAYMENT FOR EXTRA WORK.—In a contract for the erection of a house, a clause which provides that any addition or omission from the contract shall be added or deducted by a fair valuation, but shall in no wise affect the contract, prevents a claim for extra work from being brought under the terms of the contract; and full value for such extra work may be recovered, even though the requirements of the contract have not been complied with, unless the regular work has been done so negligently as to render the extra work valueless.

Garnsey v. Rhodes, Supreme Court of New York, 18 N. Y. Supp. 484, 96 C.

MECHANIC'S LIEN ON ELECTRIC LIGHT PLANT.—An electric light company which has a franchise to occupy the streets of a city with its poles, wires and lamps, and is engaged in furnishing light to the people of the city, is not so distinctly public in its nature and operations as to exempt its property from the application of the mechanic's lien statute. 29 Pac. Rep. affirmed.

Badger Lumber Co. v. Marion Water Supply Electric Light and Power Co., Supreme Court of Kansas, 30 Pac. Rep. 117, 67 C.

REQUISITES OF NOTICE FOR MECHANIC'S LIEN.—A lien notice should be sufficiently definite to fairly appraise the owner of what he is charged with, what kind of material, and what the same was furnished for.

Tacoma Lumber and Manufacturing Co. v. Kennedy, Supreme Court of Washington, 30 Pac. Rep. 79, 36 C.

LIEN AGAINST COMMUNITY PROPERTY OF HUSBAND AND WIFE.—Under the statute requiring a claim of lien to give the name of the owner or reputed owner of property sought to be charged, a claim which shows that claimant knew that an owner was married, but fails to give the name of such owner's wife, is fatally defective, as an action will not lie against a husband alone to enforce a mechanic's lien against his interests in community property, the wife being alive.

Sagmeister v. Foss, Supreme Court of Washington, 30 Pac. Rep. 80, 76 C.

SUBSTANTIAL COMPLIANCE WITH CONTRACT.—In an action to foreclose a mechanic's lien entered contract to do mason work, plaintiff may introduce as witnesses experts in the trade, to show that mason work does not include "plastering and white-washing". Where a contract for mason work to be done on a building by plaintiff provided that a certain payment should be made when the mason work was completed, and that plaintiff was delayed in his work on account of the delay of the work of another independent contractor, which had to be done first, and plaintiff used all diligence in going on with the work after it was possible for him to do so, and went prepared to finish the job, when he was ordered off by the owner, who had put other men on the work, it was a substantial compliance, and entitled plaintiff to his payment.

Highton v. Dessau, Common Pleas of New York, 19 N. Y. Supp., 395, 143 C.

The value of the product of the factories and mills west of the Mississippi during the year 1891 is computed at \$423,068,695, and the product of the states west of the Missouri alone is computed at \$198,722,653.

One of the lumber mills of Seattle, Wash., recently prepared a number of timbers 100 feet long and 24 inches square, to be used for ship building at San Francisco.

POPULAR TALKS ON LAW.

BY WM. C. SPRAGUE, ESQ.

SUBSCRIPTIONS TO STOCK.

WHAT is the nature of the obligation one assumes, or does he assume any legal obligation, in signing his name to a subscription for stock in a corporation not yet formed? Is it a proposal, on his part, which he may withdraw at pleasure? Is it a one-sided agreement, or an agreement without consideration, or a conditional promise which may or may not be binding upon the signer according as he shall subsequently choose? It may be fairly stated that many names placed upon stock subscription papers are so placed without any definite comprehension of the nature of the transaction, and of its legal effect. This is apparent to anyone who has been the promoter of corporation enterprises and has had in charge the soliciting of subscriptions thereto. A few words in the direction suggested cannot fail to be of interest and profit to the public, inasmuch as corporate enterprises have become so numerous that there is scarcely an individual, howsoever humble his circumstances, but, at one time or another, has been solicited, or been tempted, to become a subscriber to the capital stock of a corporation. What then is a subscription to stock? It may be stated to be a promise, by the subscriber, to take and pay for the shares for which he subscribes, upon a consideration sufficient and valid to support it. The nature of this consideration we shall discuss later on. More fully, the promise is one to take and pay for the shares on the terms of the subscription paper, and of the act under which the company is organized. It is usual to state in the subscription paper what act it is intended to use in organizing, and if that act makes the stockholders individually liable for the debts, they are thus liable, even although they have not done anything beyond the signing of the subscription paper. In other words, a subscription to the stock means more than an assent to the mere proposal to form a corporation for certain purposes. It means the same as if all the provisions of the statute under which it is proposed to organize were a part of the agreement signed. The agreement of the subscriber is to take the number of shares set opposite his name, and to pay for them according to the provisions of the act. The subscription may be made on condition, as for instance, that the amount subscribed shall reach a certain sum, and it has been held that, in the case of the condition mentioned, it must be intended to mean fair subscriptions, such as may probably be collected. As to the form of subscription, all that is required is that it shall indicate the intention of the subscribers to become stockholders, and the number of shares respectively taken by them. The several subscribers may sign separate instruments, they being copies of each other, and they will be regarded as one and the same instrument, and where a statute requires that subscription books shall be opened, it has been held that one or several subscription papers constitute a "book" within the meaning of the statute. The signer of a subscription paper before the organization of the corporation is complete, cannot withdraw his subscription without the consent of the other subscribers, and, though he has erased his name, the corporation can collect his subscription. This has not been declared to be the law without exceptions, but it has been held universally that where the incorporating of the company was completed, before the subscriber attempted to withdraw his subscription, he had lost the right to do so. When one has signed articles of association, he has entered into a contract which is not open to revocation. The other subscribers have an interest in the execution and performance by each subscriber of his agreement, and after the incorporation has begun a legal existence it has acquired a vested interest in each subscriber's agreement. This subject will be continued in a further paper.

Thirty-seven car loads of shingles were recently shipped by special trains from Seattle to eastern cities.

BUSINESS MOSAICS.

The Roebling Standard Wire Lathing is made for common plastering mortar having hair in its composition, and, also, a special lath for the various plastering compounds where no hair is used. The wire cloth for common mortar is made with square meshes of about three-eighths of an inch, and the wire cloth for special use is made with elongated meshes about three-sixteenths by three-eighths of an inch. This manner of forming the meshes allows the un haired mortar to pass through and key without falling off before setting. Wire lathing has many advantages, and one that will commend itself is that the wires of the lathing are embedded and thoroughly covered on all sides with the mortar, thereby forming a complete fire-proof screen. The cloth is made with stiffening bars at intervals so that it may be applied to studding or beams as usually placed. One of the later improvements for this form of lathing is a special fastening to iron beams and is easily applied.

They also furnish a special rod or support for longer spans, such as are between iron beams, etc.

The increased cost of using wire lathing is but little more than wooden lathing, and it can be applied by any ordinary mechanic. If such lathing should come into more general use the danger from fires would be reduced.

It is unfortunate for some of the manufacturers of articles and appliances for use in buildings to drop out of the market just at the time when architects are preparing plans for buildings to be erected in the fall.

The Vulcan Iron Works, 135-145 Fremont street, are continually extending their line of specialties for various uses. Their stable fittings have become a standard article. The hand hoists made by them are unexcelled. They have put up some of the largest rope tramways on the Pacific Coast. Persons looking for refrigerators and ice machines for cool storage and packing houses should call on them.

When the festive spider weaves visions of delight over the cash box, it signifies hope without advertising.

Parquet Floors or Wood Carpet make a splendid effect when laid with close fitting joints and the various colored woods worked to harmonize. The smooth, cleanly-finished surface of a parquet floor does not hold dirt or dust, and disease germs find no place for propagation. For this climate this form of hard wood floors is especially adapted, being cleanly, decorative, elegant and economical. For first-class work in this line, Mr. J. M. Reynolds, 659 Market street, San Francisco, has made his establishment the leading one in this city, and his decorations can be seen in the best residences and offices.

Good planning is the essence of economy.

A Porcelain-lined Roll Rim Bath Tub and Foot Bath, are shown on page v., which for practical convenience and artistic design are unrivaled. It is at once apparent that they are from the J. L. Mott Iron Works.

The farmer sows the seed and goes to sleep with the consciousness that nature's forces are working for the increase of his riches. The wise advertiser also knows that while he sleeps his crop is maturing and he prepares himself to reap the harvest at the proper season.

The young man, the country architect, and the builder who desires to improve himself in the art and science of building, should carefully read and study the best works on that subject to be had. THE CALIFORNIA ARCHITECT AND BUILDING NEWS will furnish him with valuable reading and hints for study, and its advertising pages will give him good ideas in regard to the improvements of the day in that line.

Improvements and care that reduce the cost of production or improve the quality, are equivalent to an increase of the price of the article.

The Excelsior Redwood Co., corner of Fourth and Channel streets of this city, has become one of the most useful manufacturing concerns on the coast. At this factory can be had, ready made, almost everything required for either interior or exterior finish, such as corner and base blocks, balusters, fancy turned columns and posts, etc. The inside partition material three-fourths to one and one-fourth inches thick, planed and moulded in different forms on both sides ready to put up has become a favorite article for convenient use. A patent corrugated roofing is another useful article which has been added to their stock and finds a ready sale. This roofing is worked both sides, is furnished in lengths from three to twenty feet and is especially adapted to hoods and projecting caps over doors and windows, roofs of verandas and porches, summer houses, and all kinds of light roof work. All the lumber is kiln dried and of first quality. See advertisement on page xvii.

The doctor who prescribes gratuitously gives a worthless prescription.

The Fitzgerald Prepared Wall Plaster is making a heavy inroad on the old method of plastering. The Pacific Patent Plaster Company has very extensive works at Rodeo where it is prepared to manufacture in quantities to suit. The advantages to be had by the use of this plaster are many, and persons in search of information should call at the office of the company, 216 Bush street, San Francisco. The Olympic Club Building, also the Heilbron Building is being plastered with this plaster.

Royal Metallic Paint is a California product and of a dark red color, but of a lighter tint than other metallic paint, consequently, does not give such a somber look. It is made only from the best materials and combines extreme fineness, density, uniformity, reliability and the highest possible degree of covering quality. It is one of the very best paints for use on roofs, farm and out-buildings. Its elasticity is retained for a long time and thus prevents the wood from cracking, and the paint from chipping, scaling or blistering. It furnishes a really good article at a moderate cost. The covering quality is so good that a good effect can be had with one coat only.

Edward Denny & Co., of 418 Montgomery street, is an old established house for the supply of draughtsmen's materials. This firm makes *blue* or *black* prints from drawings and architects in the outlying districts will find this an economical and convenient means for obtaining copies of their drawings. To many the process is inexpensive because they first prepare a complete line drawing on heavy paper, then trace on translucent linen or paper. A large proportion of drawings can be made on paper 20x33 inches. When this size can be used a superior paper for the purpose can be obtained from them. This paper is very strong and is readily worked upon with pencil or ink, and is sufficiently translucent to give clear prints. By making the drawings specially for the purpose much better prints may be had. Avoid color, as black, red and yellow all have the same effect on the print, and in our own practice we have used the single-hack line for wood, or stud and plaster walls, and the double or cross hack lines for brick work; these lines will leave clear marks on the print which can be colored if desired. The original drawing if made in water-proof ink may be colored after the prints have been made. In all cases the ink lines should be very dense so that no light works through them to blur the lines of the print.

Elevators for office and commercial buildings have become so general that old premises where this convenience does not exist must have the rents set low or stand tenantless. Inventive genius is actively seeking new combinations whereby the greatest amount of work may be had at the lowest cost. The latest lift for public favor is the Kieckhefer Elevator manufactured and put up by Trimborn Bros., room 20, Flood Bldg., this city.

It combines speed, safety and the utmost economy, and can be arranged for any class of work from the lightest to the heaviest freight hoist and for the most elegant passenger car. This elevator is taking the place of the older ones and is being put into some of the largest buildings in course of erection in this city. Its advantages are at once apparent upon examination, and will, without doubt, increase in favor as it becomes more generally known.

TENDERS TO BE RECEIVED.

Treasury Department, Office Supervising Architect, Washington, D. C., August 12, 1892. Sealed proposals will be received at this office until 2 o'clock P. M. on the 6th day of September, 1892, and opened immediately thereafter for furnishing all the low pressure, return-circulation, steam heating and ventilating apparatus, for the U. S. Court House, Post Office and Custom House building at Vicksburg, Miss., 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 Vicksburg, Miss.

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 and 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 bidders.

Proposals must be enclosed in envelopes, sealed and marked, "Proposal for the Low Pressure, Return-Circulation, Steam Heating and Ventilating Apparatus for the U. S. Court House, Post Office and Custom House building at Vicksburg, Miss." and addressed to,

W. J. EDBROOKE,
Supervising Architect.

CITY BUILDING NEWS.

Baker and Clay. Frame building; owner, Geo. W. Hendy; architects, Stone & Munson; contractors, Knox & Cook; cost, \$4,339; signed, June 30; filed, July 1; payments, \$1,247.50, enclosed; \$1,247.50, plastered; \$1,247.50, completed; \$1,247.50, 35 days.

Bartlett near 22d. School building; owner, Board of Education; architect, C. I. Havens; contractors, F. Doyle & Son; cost, \$24,440; signed, July 25; filed, July 28; payments, \$1,500, brick foundation built, frame up and enclosed; \$1,500, rough water and gas pipes in and brown mortar on; \$1,500, plastered and outside primed; \$1,740, completed; \$6,200, 35 days.

Battery near Green. Alterations and additions; owners, Fortunato and Elena Maggio; contractor, A. L. Campbell; cost, \$1,200; signed, June 29; filed, July 5; payments, \$300, excavating and raising completed; \$300, enclosed; \$300, completed; \$300, 35 days.

Broad Ave. near Plymouth. Two story frame; owner, Michael Young; architects, J. J. & T. D. Newsom; contractor, Jas. E. Schultz; cost, \$1,350; signed, July 11; filed, July 11; payments, \$183, frame up and rustic on; \$483, rough plumbing in and outside primed; \$484, completed; \$500, 35 days.

Buchanan near O'Farrell. Three-story frame; owner, Morris Hamburg; architect, Chas. M. Rousseau; contractor, Andrew Christenson; cost, \$5,500; signed, July 19; filed, July 19; payments, \$700, frame up; \$700, enclosed, tin roof and floors laid; \$700, brown mortar on; \$700, plastered; \$1,400, completed; \$1,400, 35 days.

Bush and Gough. Carpenter work for church; owners, McGowan & Butler; architect, A. P. Brown; contractor, Jos. Wilcox; cost, \$27,600; signed, June 29; filed, July 9; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Bush and Chelsea Place. Wooden and iron mantels; owner, Mrs. M. W. Newman; architect, P. R. Schmidt; contractors, Bennett & Schutte; cost, \$2,225; signed, July 14; filed, July 20; payments, \$2,225, mantels completed and set.

California near Octavia. Plumbing and gas-fitting; owner, Anna D. Miner; architect, Samuel D. Newsom; contractor, H. Williamson; cost, \$1,150; signed, June 12; filed, June 28; payments, 75 per cent. as work progresses; balance, 35 days.

California near Montgomery. Gas and incandescent light fixtures; owner, German Savings and Loan Society; architects, Kenitzer & Kollofrath; contractor, S. F. Novelly and Plate Works; cost, \$3,170; signed, July 21; filed, July 23; payments, \$2,377.50, completed; \$792.50, 35 days.

California near Drumm. Concrete work and planking; owner, Luning Co.; architects, Coxhead & Coxhead; contractors, Gray Bros; cost, \$2,133; signed, July 25; filed, July 27; payments, 75 per cent. when completed; balance, 35 days.

California near Drumm. Granite work; owner, Luning Co.; architects, Coxhead & Coxhead; contractors, F. E. Knowles & Co.; cost, \$15,680; signed, July 15; filed, July 16; payments, 75 per cent. of work done on 1st day of each month; balance, 35 days.

California near Octavia. Doors and stairs; owner, A. Jackson; architect, Samuel Newsom; contractor, Pacific Coast Door Co.; cost, \$1,400; signed, July 6; filed, July 8; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Chester near Taylor. Concrete work; owner, H. S. Martin; architect, Wm. Mosser; contractor, F. V. Steinmann; cost, \$6,275; signed, July 1; filed, July 19; payments, \$505, 1st story joists on; \$1,400, enclosed; \$1,400, plastered; \$1,400, completed; \$1,770, 35 days.

Clipper near Noe. Two-story residence; owner, Angeline Pepper; contractor, C. H. Wedgewood; cost, \$5,300; signed, June 28; filed, June 28; payments, \$825, rustic on; \$825, brown mortar on; \$825, hard finish on; \$825, 35 days.

Columbia Square near Harrison. Two-story frame; owner, H. W. Westphal; architect, A. C. Lutgens; contractor, John F. O'Brien; cost, \$5,030; signed, July 23; filed, July 28; payments, \$940, enclosed; \$940, brown mortar on; \$940, plastered; \$940, 35 days.

Dupont near Lombard. House of three flats; owner, Chas. Sahrbaier; architect, H. C. Macy; contractor, Phil. Sheridan; cost, \$2,070; signed, July 1; filed, July 1; payments, \$150, frame finished and stairs up; \$200, outside and hard finish on; \$400, plumbing done, mantels set and front stairs up; \$750, completed; \$1,170, 35 days.

Eddy near Fillmore. One-story frame; owner, Ben. Michelson; contractors, Peterson & Person; cost, \$2,306; signed, July 6; filed, July 7; payments, \$331, frame up; \$600, brown mortar on; \$600, completed; \$755, 35 days.

Erie near Howard. Three-story frame; owner, F. Klepsch; contractors, Cochran & Buchwost; cost, \$5,000; signed, July 14; filed, July 14; payments, \$1,100, frame up; \$1,100, brown mortar on; \$1,100, plastered and outside mill-work on; \$1,100, completed; \$1,500, 35 days.

Fifth and Bluxome. Two-story frame; owner, F. S. Moody; architect, Chas. I. Havens; contractor, Jno. Furness; cost, \$17,300; signed, July 29; filed, July 29; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Fillmore near Ellis. Plumbing and gas-fitting; owner, Chas. Main; architect, Chas. Geddes; contractor, R. A. Vance; cost, \$627; signed, June 29; filed, July 6; payments, \$271, pipes in; \$300, completed; \$156, 35 days.

Fillmore near Ellis. Painting and graining; owner, Chas. Main; architect, Chas. Geddes; contractor, Thomas Downing; cost, \$120; signed, June 29; filed, July 6; payments, \$70, frame and inside grained; \$115, graining completed; \$105, 35 days.

Fillmore near Ellis. Plastering; owner, Chas. Main; architect, Chas. Geddes; contractor, O. F. Mulville; cost, \$183; signed, June 23; filed, July 6; payments, \$30, brown mortar on; \$164, completed; \$121, 35 days.

Fillmore near Page. Carpenter, brick-work, etc.; owner, Chas. Main; architect, Chas. Geddes; contractor, F. L. Hanson; cost, \$1,750; signed, June 29; filed, July 6; payments, \$750, frame and chimneys up; \$1,250, enclosed and brown mortar on; \$1,000, plastered, windows in and fences up; \$573, completed; \$1,177, 35 days.

Fourth near Brannan. Two-story frame; owner, M. Dobner; contractor, Aug. Land; cost, \$2,000; signed, July 16; filed, July 20; payments, \$500, frame up; \$500, completed; \$500, 35 days.

Franklin and California. To build; owner, Chas. Gladding; architect, W. J. Matthews; contractor, F. W. Knight; cost, \$6,332; signed, July 22; filed, July 28; payments, \$1,573, 1/2 completed; \$1,573, 1/2 completed; \$1,573, all completed; \$1,573, 35 days.

Geary near Dupont. Concrete work, patent lights, etc.; owner, S. Clayburgh; architects, Saffeld & Kohlberg; contractor, H. Stettin; cost, \$885; signed, May 27; filed, July 11; payments, \$600, completed; \$225, 35 days.

Geary near Dupont. Iron and wood lathing; owner, S. Clayburgh; architects, Saffeld & Kohlberg; contractor, C. C. Morehouse; cost, \$1,980; signed, May 27; filed, July 11; payments, \$750, brown mortar on; \$750, plastered; \$480, 35 days.

Geary near Dupont. Tin and galvanized iron work; owner, S. Clayburgh; architects, Saffeld & Kohlberg; contractor, Robert Boyd; cost, \$607; signed, May 27; filed, July 11; payments, \$400, roof on; \$300, completed; \$247, 35 days.

Geary near Dupont. Elevator work; owner, S. Clayburgh; architects, Saffeld & Kohlberg; contractors, Cahill & Hall Elevator Co.; cost, \$1,345; signed, July 8; filed, July 12; payments, \$2,000, machinery; \$1,000, cages and tanks set and guide joists set; \$1,245, completed; \$1,110, 35 days.

Geary and Octavia. Brick, tin and carpenter work; owner, R. M. Black; architect, Wm. Curlett; contractor, Wm. Lindon; cost, \$17,425; signed, July 19; filed, July 20; payments, 1st and 15th day of each month 75 per cent. as work progresses; balance, 35 days.

Glasgow near Eddy. Four-story brick; owner, Wm. Kreling; architect, Edward Burns; contractor, Robert Boyd; cost, \$6,425; signed, July 7; filed, July 8; payments, \$1,500, brick walls completed to 1st floor joists, \$800, complete to 2d floor; \$850, complete to 3rd floor; \$850, complete to 4th floor; \$800, completed; \$1,625, 35 days.

Gough and O'Farrell. To build; owner, B. Marks; architects, Copeland & Pierce; contractor, O. F. White; cost, \$7,789; signed, July 5; filed, July 7; payments, \$1,800, frame up and rafters on; \$1,500, brown mortar on; \$1,274, plastered, outside finish on; \$1,250, completed; \$1,465, 35 days.

Grove near Polk. To build; owner, Michael Diving; architect, H. Geiffuss; contractor, F. Klatt; cost, \$3,680; signed, July 14; filed, July 14; payments, \$352, frame up; \$532, enclosed, floors laid and partitions set; \$532, brown mortar on; rear porches and basement done; \$532, inside standing finish on; \$532, completed; \$929, 35 days.

Guttenburg near Hanover. One-story and rough basement frame; owner, Mrs. B. Normand; architect, Oliver Everett; contractor, James Campbell; cost, \$1,400; signed, July 18; filed, July 18; payments, \$351.25, rustic on and roof shingled; \$351.25, brown mortar on; \$351.25, completed; \$551.25, 35 days.

Harrison near 25th. Two-story, two flats; owner, John Thompson; contractor, W. W. Redhall; cost, \$3,500; signed, July 7; filed, July 7; payments, \$875, enclosed; \$875, brown mortar on; \$875, completed; \$875, 35 days.

Hickory Ave. near Gough. Alterations and additions; owner, Bertha Kaempfer; architects, John & Balezynski; contractor, Carl Stroth; cost, \$775; signed, July 8; filed, July 8; payments, \$300, old house moved and new partitions ready for plaster; \$275, completed; \$200, 35 days.

Howard near 4th. Four-story frame; owner, Mary A. Neary; architect, T. A. Brockidge; contractor, Tim. Sullivan; cost, \$8,000; signed, June 30; filed, July 7; payments, \$1,000, 3rd story joists in place; \$1,000, enclosed; \$1,592, brown mortar on; \$1,500, plastered; \$1,000, completed; \$2,000, 35 days.

Hubbard near Howard. To build; owner, F. M. Burke; architect, Chas. I. Havens; contractors, R. Doyle & Son; cost, \$5,790; signed, July 29; filed, July 22; payments, \$1,000, frame up and enclosed; \$1,000, brown mortar on and rough gas and water pipes in; \$1,340, plastered and outside primed; \$1,340, completed; \$1,450, 35 days.

Hyden near Jackson. Excavation and brickwork; owner, J. Goetjen; architects, Mariens & Coffey; contractor, G. N. Smith; cost, \$5,285; signed, June 28; filed, June 29; payments, \$900, enclosed; \$900, floors laid, outside finish on and partitions set; \$900 white plaster on; \$900, completed; \$1,325, 35 days.

Jackson near Pierce. All work but plumbing; owner, Geo. W. Bowers; architects, Percy & Hamilton; contractor, J. C. Gibson; cost, \$1,482; signed, June 23; filed, July 5; payments, 1st Saturday of each month 75 per cent. as work progresses; balance, 35 days.

Jersey near Vicksburg. Frame dwelling; owner, Michael O'Donnell; architect, John J. Clark; contractor, John C. Rogers; cost, \$1,500; signed, June 29; filed, July 2; payments, \$300, enclosed; \$300, brown mortar on; \$300, completed; balance, 35 days.

Larkin near Pacific. Alterations and additions; owner, Isaac Friedman; architect, W. C. Dickerson; contractor, John Strang; cost, \$1,050; signed, July 18; filed, July 19; payments, \$250, rustic on, partitions set and rough plumbing in; \$275, plastered and front nearly completed; \$250, completed; \$275, 35 days.

Lombard near Leavenworth. Three-story frame; owner, Anne M. Wolf; architect, W. H. Wharf; contractor, Geo. Richley; cost, \$4,888; signed, July 25; filed, July 22.

Market near Fifth. To build; owner, James Coughlin; architects, Shea & Shea; contractor, M. Fennell & Sons; cost, \$11,100; signed, July 14; filed, July 16; payments, \$3,000, basement walls ready for 1st story joists; \$1,775, wall ready for ceiling joists; \$1,775, brown mortar on; \$1,775, completed; \$2,775, 35 days.

McAllister St. Three-story frame; owner, Anna Wischler; architects, Kenitzer & Kollofrath; contractor, Adam Miller; cost, \$9,000; signed, July 20; filed, July 22; payments, \$1,200, frame up; \$1,500, enclosed; \$1,500, brown mortar on; \$1,000, plastered; \$2,000, completed; \$2,400, 35 days.

Mission and 30th. To build; owner, H. Horstmann; architects, Saffeld & Kohlberg; contractor, H. Rohling; cost, \$7,750; signed, July 6; filed, July 8; payments, \$1,500, frame up; \$1,400, enclosed, floors laid and partitions set; \$1,400, brown mortar on; \$1,400, completed; \$1,350, 35 days.

Mission and 30th. To build; owner, H. Horstmann; architects, Saffeld & Kohlberg; contractor, H. Rohling; cost, \$7,750; signed, July 6; filed, July 8; payments, \$1,500, frame up; \$1,400, enclosed, floors laid and partitions set; \$1,400, brown mortar on; \$1,400, completed; \$1,350, 35 days.

Morton St. Cylinder Elevator. owner, Raphael Bros; architects, Wright & Sanders; contractors, Cahill Hall Elevator Co.; cost, \$3,300; signed, July 7; filed, July 9; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Noe near Hill. Frame cottage; owner, W. S. Mackay; architect, J. C. Newsom; contractor, W. E. Lane; cost, \$2,232; signed, July 18; filed, July 19; payments, \$837, outside complete except stairs and bulkhead, rough plumbing in and chimneys built; \$837, completed; \$553, 35 days.

Oak near Steiner. Carpenter work, painting, etc.; owner, Mrs. M. A. Guptill; architects, Stone & Munson; contractor, Geo. Connon; cost, \$5,076; signed, July 6; filed, July 6; payments, \$561.75, frame up; \$561.75, enclosed; \$561.75, plastered; \$561.75, completed; \$1,200, 35 days.

Oregon and Drumm. Two-story brick; owner, Jas. G. Fair; architect, H. A. Schulze; contractor, Thos. H. Day; cost, \$22,550; signed, June 15; filed, June 25; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Oregon and Drumm. Sand stone and granite walk; owner, Jas. G. Fair; architects, H. A. Schulze; contractors, Healy & Phillips; cost, \$3,008; signed, June 8; filed, June 25; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Page and Gough. Two additional rooms to school; owner, Board of Education; architect, Chas. I. Havens; contractor, John Blake; cost, \$1,197; signed, June 17; filed, June 28; payments, \$797, enclosed; \$800, hard finished and outside primed; \$800, completed; \$800, 35 days.

Point Lobos Ave. near Cook. Alterations and additions; owner, Henrietta Labhard; contractor, G. G. Gillespie; cost, \$2,350; signed, July 2; filed, July 7; payments, \$440, frame up; \$440, brown mortar on; \$440, completed; \$440, 35 days.

Point Lobos near 2d Ave. Alterations and additions; owner, J. E. Owens; contractor, T. Sullivan; cost, \$1,250; signed, July 23; filed, July 27; payments, \$313, raised and frame up; \$440, brown mortar on; \$311, completed; \$313, 35 days.

Post near Mason. Steam heating radiators, etc.; owner, Olympic Club; architect, H. A. Schulze; contractor, Philip Leprohon; cost, \$2,982; signed, June 27; filed, July 14; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Post near Mason. Passenger elevator; owner, Olympic Club; architect, H. A. Schulze; contractors, Cahill and Hall Elevator Co.; cost, \$7,750; signed, June 27; filed, July 14; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Post near Mason. Electric light, gas, etc.; owner, Olympic Club; architect, H. A. Schulze; contractor, Electric Improvement Co.; cost, \$2,272; signed, June 27; filed, July 14; payments, 1st day of each month 75 per cent. as work progresses; balance, 35 days.

Post near Powell. Wrought iron work; owner, C. Ferris; architects, C. R. and J. M. Wilson; contractor, P. H. Jackson & Co.; cost, \$1,650; signed, July 2; filed, July 16; payments, \$800, 1st story walls up; \$500, 4th story walls up; \$150, 35 days.

Russ House. Elevator; owner, Russ Estate; contractors, Cahill & Hall Elevator Co.; cost, \$9,500; signed, July 9; filed, July 15; payments, \$1750, completed, \$1750, in 60 days.

Sacramento near Hyde. Two 2-story frames; owner, Edward Walsh; architects, Shea & Shea; contractor, Richard Rice; cost, \$1,550; signed, July 1; filed, July 7; payments, \$500, rough plumbing and gas-fitting in; \$600, plumbing completed; \$300, 35 days.

Sacramento near Powell. Excavating, brickwork, etc.; owner, S. Cline; architects, Saffeld & Kohlberg; contractor, F. Renfort; cost, \$4,700; signed, July 5; filed, July 8; payments, \$1,300, frame up; \$1,200, plastered; \$1,100, completed; \$1,200, 35 days.

Sacramento near Powell. Plumbing and gas-fitting; owner, S. Cline; architects, Saffeld & Kohlberg; contractors, P. N. Berkhout; cost, \$165; signed, July 6; filed, July 8; payments, \$250, rough work in; \$250, completed; \$165, 35 days.

Sanchez near 28th. Carpenter work, etc.; owner, P. A. McDonald; contractor, Jas. E. Schulze; cost, \$1,600; signed, July 9; filed, July 9; payments, \$400, frame up and rustic on; \$500, plastered; \$300, completed; \$400, 35 days.

Scott and Sacramento. Alterations and additions; owner, Mrs. Thomas Holt; architect, J. Luther Newsom; contractor, W. E. Lane; cost, \$8,100; signed, July 6; filed, July 7; payments, \$2,040, frame up, less rafters; \$2,040, enclosed and lathed; \$2,040, completed; \$2,040, 35 days.

Second Ave. near Pt. Lobos Ave. Two-story and basement frame; owner, Ulrika W. Elverson; architects, Townsend & Wyckoff; contractors, McLeod & McLean; cost, \$2,897; signed, July 19; filed, July 19; payments, \$343, frame up; \$343, 1st coat of mortar on; \$403, 2d on and priming done; \$443, completed; \$725, 35 days.

Seventh and Folsom. Sewering plumbing; owner, Jennie W. Cushing; architect, A. W. Pattiani; contractor, M. C. Kean; cost, \$2,740; signed, July 11; filed, July 11; payments, \$1,000, rough plumbing in; \$1,040, completed; \$700, 35 days.

Seventeenth St., No. 612. Alterations and additions; owner, Wm. R. Phillips; architect, Oliver Everett; contractor, Frank Schuadt; cost, \$3,730; signed, June 28; filed, July 6; payments, 1, building raised and new portion enclosed, 1, brown mortar on; 1, completed; 1, 35 days.

Seventeenth near Shotwell. To build; owner, L. Van Laak; architect, H. Gellfuss; contractor, F. W. Kern; cost, \$2,222; signed, July 14; filed, July 14; payments, \$520, frame up; \$520, roof on, floors laid and partitions set; \$520, brown mortar on; \$520 completed; \$700, 35 days.

Shotwell near 14th. Two-story frame; owners, Gallick & Silverstein; architect, A. J. Barrett; contractor, J. C. Rogers; cost, \$1,000; signed, June 7; filed, July 6; payments, \$750, frame up and roof boards on; \$750, brown mortar on; \$750, plastered; \$750, completed; \$1,000, 35 days.

Sutter and Montgomery. Alterations and additions; owners, J. & P. J. Donahue; architect, C. J. I. Devlin; contractors, Anderson Bros.; cost, \$15,000; signed, July 20; filed, July 27; payments, 75 per cent. as work progresses; balance, 25 days.

Tehama near 4th. To build; owners, Leonard Bros.; architect, Oliver Everett; contractors, Richardson & Gale; cost, \$12,284; signed, July 11; filed, July 11; payments, 1st day of each month 75 per cent. as work progresses; balance, 25 days.

Third Ave. near Pl. Lobos. Two-story frame of two flats; owner, Frank Musmann; architects, Townsend & Wyckoff; contractors, McLeod & McLean; cost, \$2,307; signed, July 18; filed, July 19; payments, \$543, frame up; \$543, 1st coat of mortar on; \$543, 2d on and priming done; \$413, completed; \$725, 35 days.

Twentieth near Howard. Two-story frame; owner, T. R. Bannerman; architects, Shea & Shea; contractor, F. W. Kern; cost, \$5,700; signed, July 11; filed, July 14; payments, \$1,250, frame up and rafters on; \$1,250, brown mortar on; \$1,250, plastered; \$1,250, completed; \$1,250, 35 days.

Twentieth near Eureka. Two-story frame; owners, Bender Bros.; architect, Jno. J. Clark; contractor, R. Boyle & Son; cost, \$4,355; signed, July 21; filed, July 21; payments, \$1,125.00, foundation in, frame up, rustic and roof on; \$1,125.00, floors laid, rough plaster on, tin work done and 1st coat of paint on; \$1,125.00, completed; \$1,125.00, 35 days.

Twenty-third and Vicksburg. One and a half story frame; owner, F. H. Abbott; architect, N. A. Constock; contractors, Leonard & Josiah; cost, \$325; signed, July 5; filed, July 5; payments, \$325, frame up; \$325, plastered; \$325, completed; \$325, 35 days.

Twenty-fourth and Howard. Millwork etc., except doors; owner, P. R. Sanchez; architect, John M. Curtis; contractors, Miller & Co.; cost, \$1,080; signed, July 16; filed, July 23; payments, \$272, 2d tier joists on and studding set; \$272, enclosed and ready for plaster; \$272, completed; \$272, 35 days.

Twenty-fourth and Howard. Frame building; owner, F. M. Thompson; architect, John M. Curtis; contractor, R. P. Sanchez; cost, \$11,475; signed, June 25; filed, June 27; payments, 1, 2d tier of joists on and studding set; 1, building enclosed and ready for plaster; 1, completed; 1, 35 days.

Twenty-fifth near New. Carpenter, brick work, etc.; owner, Margaret Ward; architect, J. J. Clark; contractor, Patrick Maloney; cost, \$1,000; signed, July 11; filed, July 11; payments, \$1,000, rustic on; \$1,000, brown mortar on; \$1,000, inside finish complete; \$1,000, 35 days.

Union near Kearny. Alterations and additions; owner, W. H. Eager; architect, Chas. M. Rousseau; contractor, Andrew Christenson; cost, \$2,000; signed, July 19; filed, July 19; payments, \$500, frame up; \$500, brown mortar on; \$700, completed; \$500, 35 days.

Urbans near 18th. Two-story frame; owner, P. A. Dolan; contractor, John Gunn; cost, \$2,250; signed, June 24; filed, June 24; payments, \$750, frame up, rustic and rafters on; \$750, floors laid and brown mortar on; \$750, completed; \$750, 35 days.

Vicksburg near Jersey. One-story and basement; owner, M. Harrington; contractor, John C. Rogers; cost, \$1,225; signed, July 6; filed, July 7; payments, \$300, enclosed; \$925, 35 days.

ALAMEDA COUNTY.

Bay near Rail Road Ave., Alameda. Two one-story and basement cottages; owner, Stephen R. Pierce; contractors, Marcuse & Remmel; cost, \$3,900; signed, July 9; filed, July 11; payments, \$875, frame of two cottages up and roof on; \$875, brown mortar on; \$875, completed; \$875, 35 days.

Buena Vista Ave., and Sherman St. Two-story and basement; owner, Lucien Lacroix; contractors, J. E. Henderson & Bro.; cost, \$1,500; signed, July 7; filed, July 8; payments, \$375, frame up; \$375, brown mortar on; \$375, completed; \$375, 35 days.

Butler Ave. and Idaho St., Oakland. To build; owner, H. B. M. Miller; architect, F. M. Cramer; contractors, Marcuse & Remmel; cost, \$3,400; signed, June 30; filed, July 2; payments, \$850, foundation laid, frame and chimneys up, and roof sheathing on; \$850, brown mortar, roof and exterior finish on; \$850, completed; \$850, 35 days.

Castro St., Haywards. To build; owner, Leopold Palmatag; architect, Thos. Moran; contractor, A. L. Campbell; cost, \$2,377; signed, July 16; filed, July 18; payments, \$1,500, walls ready to receive 2d floor joists; \$1,500, 2d floor joists in place and walls constructed; \$1,000, building enclosed and covered with tin; \$1,000, brown mortar on; \$1,000, plastered; \$1,000, completed; \$2,345, 35 days.

Dormitory, St. Mary's Cemetery. Underground vault and concrete work; owner, Mary Channing; architect, Chas. I. Devlin; contractor, Geo. Goodman; cost, \$2,365; signed, June 24; filed, June 27; payments, 75 per cent. as work progresses; 25 per cent. 35 days.

Eighth near Center, Oakland. Two-story frame; owner, J. C. Westphal; architect, Chas. Mau; contractor, H. E. Jones; cost, \$4,500; signed, July 14; filed, July 14; payments, \$1,375.00, 1, materials furnished and work done; \$1,375.00, 1/2 materials furnished and work done; \$1,375.00, completed; \$1,375.00, 35 days.

Fourteenth near Washington, Oakland. To build; owner, George Uhl; architect, W. J. Mathews; contractor, Judson Manufacturing Co.; cost, \$1,180; signed, June 30; filed, June 30; payments, \$1,594, 1/2 work completed; \$1,597, completed; \$1,000, 35 days.

Fruitvale Ave. Plumbing, gas-fitting, etc.; owner, F. Tillman, Jr.; architect, H. Gellfuss; contractor, Chas. F. Fischer; cost, \$1,300; signed, July 12; filed, July 22; payments, 1st and 15th day of each month 75 per cent. as work progresses, 25 per cent. 35 days.

Fruitvale Ave., Berkeley. To build; owner, Fred Tillman, Jr.; architect, H. Gellfuss; contractors, Schutt & Kreeker; cost, \$8,500; signed, July 12; filed, July 13; payments, \$1,275, frame up; \$1,275, enclosed, floors laid and partitions set; \$1,275, brown mortar on and outside work completed; \$1,275, inside standing finish on; \$1,275, completed; \$1,275, 35 days.

Fruitvale Ave., Berkeley. To build; owner, Fred Tillman, Jr.; architect, H. Gellfuss; contractor, August Fleck; cost, \$1,000; signed, July 12; filed, July 14; payments, 1st and 15th day of each month 75 per cent. as work progresses; 25 per cent. 35 days.

Gashill Tract, Oakland. One-story and basement; owner, J. C. Bly; architect, John Conant; contractor, Joseph F. Francis; cost, \$1,000; signed, June 22; filed, June 27; payments, \$350, frame up and rustic on; \$350, completed; remaining payment 35 days.

Haight Tract, Alameda. Two-story frame; owner, M. Ryder; contractor, A. R. Denke; cost, \$1,450; signed, June 30; filed, July 2; payments, \$500, frame up; \$500, brown mortar on; \$500, completed; \$500, 35 days.

Hobart and Grove, Oakland. Plumbing; owner, Rev. T. McSweeney; architect, C. J. I. Devlin; contractor, E. P. McGowan; signed, July 12; filed, July 16; payments, 75 per cent. as work progresses; 25 per cent. 35 days.

Hobart and Grove, Oakland. Lathing and plastering; owner, Rev. T. McSweeney; architect, Chas. I. Devlin; contractors, G. P. & T. J. Smyth; cost, \$7,500; signed, July 21; filed, July 22; payments, \$500, walls above main ceiling lathed; \$1,500, building scratched and coated; \$1,500, walls above main ceiling finished; \$750, remaining walls finished; \$1,350, completed; \$1,500, 35 days.

Hunting Tract. Two-story frame; owner, Chas. Harrison; contractor, E. P. McGowan; cost, \$1,500; signed, July 13; filed, July 16; payments, \$375, frame up and rustic on; \$375, enclosed, brown mortar on and floated; \$375, completed; \$375, 35 days.

Jones Ave., San Leandro Road. Four buildings; owner, H. Jones; contractors, Marcuse & Remmel; cost, \$6,000; signed, June 29; filed, June 29; payments, \$1,747.50, frame up and roof on; \$1,747.50, brown mortar on; \$1,747.50, completed; \$1,747.50, 35 days.

Kelleyburg Map of Oakland, Block No. 52. Two-story flat; owner, Mrs. Eliza Fitchell; architect, Elmer C. Childs; contractor, Geo. Gale; cost, \$2,880; signed, July 6; filed, July 8; payments, \$720, frame up and roof on; \$720, enclosed and brown mortar on; \$720, completed; \$720, 35 days.

Lake Merritt Park, Oakland. To build; owners, Holway & Lane; architect, John Conant; contractor, J. A. Eastman; cost, \$3,150; signed, June 21; filed, July 6; payments, \$787.50, frame up and roof sheathed; \$787.50, brown mortar on; \$787.50, completed; \$787.50, 35 days.

Lake Merritt Park, Oakland. Two-story frame; owners, Holway & Lane; architect, John Conant; contractor, J. A. Eastman; cost, \$2,250; signed, June 22; filed, July 6; payments, \$500, frame up and sheathed; \$500, brown mortar on; \$500, completed; \$500, 35 days.

Lake Merritt Park, Oakland. Carpenter, brickwork, etc.; owner, O. A. Lane; architect, John Conant; contractor, J. A. Eastman; cost, \$1,500; signed, June 21; filed, July 6; payments, \$350, frame up and roof sheathed; \$350, brown mortar on; \$350, completed; \$350, 35 days.

Laurel near Clinton Ave. Two-story dwelling; owner, L. S. Bailey; contractor, C. A. Brown; cost, \$2,300; signed, July 8; filed, July 14; payment, \$575, frame up and enclosed; \$575, brown mortar on; \$575, completed; \$575, 35 days.

Levy Tract, Brooklyn. Two-story frame; owner, J. W. Phillips; contractor, Chas. Murcell; cost, \$3,678; signed, July 7; filed, July 8; payments, \$1,418.25, foundation in and roof on; \$1,418.25, outside completed and brown mortar on; \$1,418.25, completed; \$1,418.25, 35 days.

Linda Vista Terrace, Oakland. Two-story building; owner, David R. Rae; contractors, Weeks & Son; cost, \$3,750; signed, July 7; filed, July 8; payments, \$938, rough frame and chimney built; \$938, brown mortar on; \$938, completed; \$938, 35 days.

North Temescal. Church; owner, Presbyterian Church; architect, J. B. Matheson; contractors, Pierce & Ruch; cost, \$6,203; signed, July 7; filed, July 25; payments, \$1,875, foundations in and rough frame up; \$500, roof shingled and stained; \$500, doors and window frames in and outside of house shingled; \$500, plastered; \$1,000, inside work completed; \$500, completed; \$1,000, 35 days.

Park near Shattuck Ave. To build; owner, Robert Raphael; contractor, F. E. Armstrong; cost, \$1,350; signed, July 6; filed, July 18; payments, \$335, enclosed; \$335, brown mortar on; \$335, completed; \$335, 35 days.

Perilla and 17th, Oakland. Two-story addition; owner, Wm. Walsh; architect, Chas. Mau; contractors, Herbst & McLeod; cost, \$2,400; signed, July 16; filed, July 16; payments, \$600, 1, materials furnished and work done; \$600, materials furnished and work done; \$600, completed; \$600, 35 days.

San Leandro Road near Jones. Hotel building; owner, A. Jones; contractors, Marcuse & Remmel; cost, \$7,650; signed, July 19; filed, July 19; payments, \$1,912.50, frame up; \$1,912.50, brown mortar on; \$1,912.50, completed; \$1,912.50, 35 days.

San Pablo Ave., Golden Gate. School building; owner, Bay School District; architects, Smith & Farr; contractors, McDonald & Eggleston; cost, \$12,253; signed, July 25; filed, July 26; payments, \$3,063.25, frame up; \$3,063.25, floors laid roof and brown mortar on; \$3,063.25, completed; \$3,063.25, 35 days.

Telegraph Ave., Oakland. Two cottages; owner, Mrs. S. J. Hubbard; architect, R. Gray Frise; contractors, Bryan & Irwin; cost, \$3,584; signed, July 25; filed, July 25; payments, \$896, enclosed; \$896, roof on, floors laid, rough plumbing done and brown mortar on; \$896, completed; \$896, 35 days.

Tenth near Jackson, Oakland. Two-story frame; owner, James L. McCarthy; architect, Howard Burns; contractor, C. J. Brophy; cost, \$3,220; signed, July 7; filed, July 9; payments, \$805, frame up and brickwork completed; \$805, enclosed and brown mortar on; \$805, completed; \$805, 35 days.

Twenty-first near 10th Ave., Oakland. Two-story dwelling; owner, W. C. Harrington; architect, A. W. Pathank; contractor, C. A. Parker; cost, \$3,865; signed, July 4; filed, July 8; payments, \$724, frame up; \$724, enclosed and brown mortar on; \$724, plastered, outside except steps ready for painting; \$724, completed; \$908, 35 days.

Twenty-second and 23rd Ave., Oakland. One story and basement dwelling; owner, L. W. Palmer; architect, A. Winberg; cost, \$1,770; signed, July 12; filed, July 13; payments, 1/2 frame erected; 1/2 enclosed, first coat of plaster on; 1/2, second coat of plaster on, all doors and windows in; last payment 10 days after completion.

Twenty-third Ave. near 15th St. Two-story frame; owner, Anna Meyer; architect, Chas. F. Fischer; contractor, Addison Buckner; cost, \$2,762; signed, July 14; filed, July 19; payments, \$600, frame up and rustic on; \$600, completed; \$902, 35 days.

Twenty-third Ave. and 14th, Oakland. Two-story frame; owners, Chaffer & Henderson; architects, J. C. Mathews & Son; contractors, Caldwell & Nickerson; cost, \$2,905; signed, July 25; filed, July 28; payments, \$300, frame up; \$700, enclosed; \$400, brown mortar on and outside primed; \$752.50, completed; \$752.50, 35 days.

Twenty-fourth and Valez. Two-story frame; owner, Mrs. Weber; contractors, Leiter & Prugh; cost, \$2,405; signed, July 28; filed, July 28; payments, \$300, house up and roof on; \$300, enclosed and plastered; \$300, completed; \$505, 35 days.

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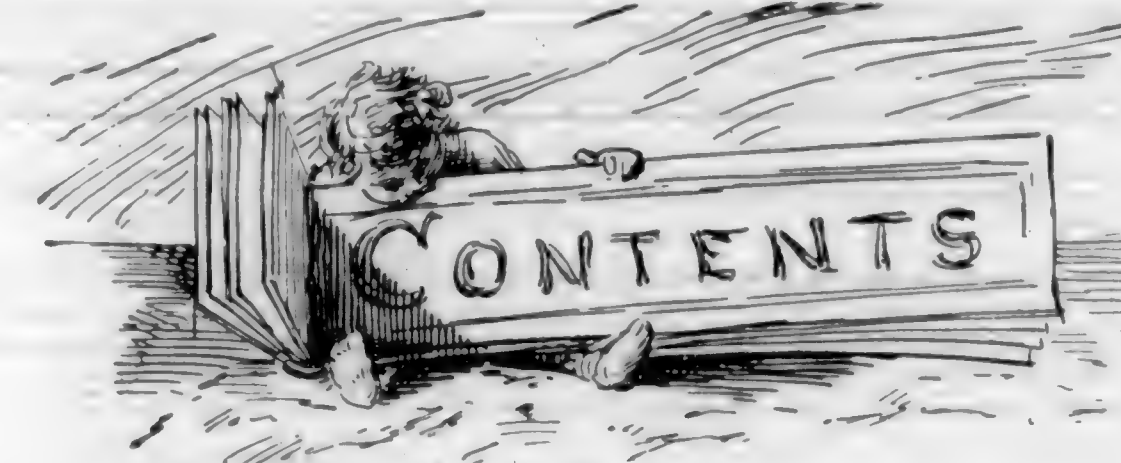
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THE old saying that "Coming events cast their shadows before," has been brought before us during the last few weeks. The daily papers have given detailed accounts of the Cholera in other countries, and already the shadow of the plague has become well defined in the states bordering on the Atlantic, and may possibly reach this Coast.

This Journal has always taken the position that usefulness, art, strength and health are the four principal factors in good architecture, therefore we offer no excuse for the extra space allotted to sanitary questions.

A large proportion of the buildings in this city and in some of the towns and villages, also many suburban and farm-houses, have the main water supply run into tanks set at a sufficient height to supply the water for use. After a time the water in such tanks becomes covered with a green scum, while decayed organic matter settles at the bottom ready to enter the house supply pipes and be drawn off for household purposes. It needs no argument to show the beneficial result of cleansing these tanks at least once a week. There is a convenience for the cleansing of boilers in the kitchens of many of our residences,—viz., a sediment outlet at the lower part of the pipes under the boilers. The sediment should be drawn off every morning through the faucet. Sometimes this faucet is provided with a waste pipe to a hopper outside the house.

ONE source of danger is to be found in the cities and towns on this Coast where the roofs are used by the Chinese for drying clothes and other purposes only known to themselves and to persons having business which gives them knowledge of this state of affairs. The main roofs are nearly flat and in most cases covered with tin or asphaltum; at a short distance above this there is a floor of boards placed upon light frame work which serves as a cover for the roof. The space between the roof and boards is, in many cases, reeking with moist filth, which under proper authority could be cleaned up and taken away.

THE bake shops may be looked after; the bread, cake and pie pans are in some cases greased with old and rancid fats which permeate the product and may become generative of pestilence.

WE have ordinances sufficient, provided the surveillance was more efficient, to abate one of the worst evils extant. The streets are carefully swept and cleaned up during the night time; in the morning the stores or shops are opened and swept out upon the sidewalks and into the streets, so that by noon the streets contain large deposits of dirt and dust to be raised and wafted about by the winds.

WHILE the question of the transfer of dirt into the street, is considered, it may be well to mention that in most, if not all, the rooming houses fronting on the streets, the inmates of the front rooms use the streets for the deposit of debris from their rooms, and about midnight the pedestrian will every little while hear and see a package from some window thrown into the street. In some localities if the person occupying the first story objects to such methods of scavenging for the upper stories, the landlord straightway raises the rent, as the rottenness of the rooms above pays more than the business places below.

WHERE should be an inspection of fruit and vegetables set out for sale in our markets. Decayed and decaying edibles are a prolific source of propagation of infectious diseases. At many of the street corners may be seen peddlers dealing out partially decayed fruit.

THE excretions of the dog or cat are considered poisonous, and the animal will try to cover it with earth when the surroundings will admit of it. The dog of the built up districts will not soil its own home, and we have never seen any good reason why it should be allowed to soil the neighbors' doorways or premises, and we fail to understand why it should be permitted to soil the fruit and vegetables for sale in the shops and on the sidewalks of our green-grocers. This is an evil that should be the subject for a crusade by the people and officials. There should be an ordinance passed that no fruit or vegetables should be deposited less than two feet from the floor or sidewalk where subject to this danger.

ON the ninth day of September, 1850, California was admitted into the Union as a state.

The anniversary of this event, or as it is called, "Admission Day" is celebrated each year in a way that only true western people know how to celebrate. This occasion is recognized as a legal holiday and the organization of the "Native Sons of the Golden West" supervises the ceremonies. The coming generation is taught to realize the importance of its glorious state which sprang from a wilderness into a state without ever having a territorial government.

A just pride is taken by the Native Sons and their auxiliary, "The Native Daughters," in upholding and advancing the culture and refinement of "The Golden State" and they deem this the proper day for giving vent to their joyous feelings.

On Admission Day it is customary for the "parlors" of the N. S. G. W. in certain districts to join together and hold their celebrations at some place decided upon by the committee. This year Santa Rosa, a beautiful, prosperous little city, famous for the exquisite roses raised within its limits, was the favored spot for a number of parlors from this great metropolis.

Santa Rosa is about fifty miles north of San Francisco, and for three days, regular and special trains were run to accom-

modate the vast throng of people who were either going to take part in the festivities or enjoy the hospitality of the residents of the "City of Roses."

The Veteran Firemen of San Francisco received a cordial invitation to participate in the ceremonies of Admission Day, and on Sept. 9th, the sun, while yet rising from behind the hills, beheld numerous veterans attired in their fiery red shirts, surveying and enjoying the beauties of the surrounding country before going to parade. The Native Sons appeared in their fine costumes and the Native Daughters rivaled the beauty of the hills in Spring-time.

In the long parade that took place that day, the presence of the Veteran Firemen with their old "Masheen," presented a strong contrast with the sturdy Santa Rosa Brigade and its modern apparatus, and to the moralizer, suggested the connection of the past with the present.

All the parlors kept "open house," and the people of Santa Rosa entertained their guests royally, and all manner of good things were provided in abundance for the gratification of the eye, the ear and the taste.

The excellent behavior of the vast mass of people who gathered together to commemorate the admission of California into the Union, speaks well for the future of our State.

After spending a day or two very pleasantly and profitably, the Native Sons and Daughters returned to their business and home duties.

DURING the short time the Veteran Firemen remained in Santa Rosa, as guests of the N. S. G. W. and the resident Firemen, we noticed the excellent steam fire-engine and hose cart, drawn by horses, and it surprised us to see such a brisk and growing city with a hook and ladder truck drawn by the members of the Company.

When buildings in the country towns were erected more than one story in height, the hook and ladder company became of importance, and as the height of buildings increase, this division of the fire brigade becomes more pronounced.

Where a fire occurs in a two or three story building, more effective work can be done when the hose is carried to the upper stories and in such cases the ladder is a useful adjunct in saving property.

The water supply for this thriving city comes from springs among the adjacent hills, and its purity appears to advantage in the healthful looks of the residents.

COMMERCIALISM IN ARCHITECTURE.

MUCH has been lately written about a National Style of Architecture; the world has advanced and intercommunication is so facilitated that Nationalism in Architecture is no more; and the Architecture of the World must now be cosmopolitan, thus following the trend of the mind of the organism, Society, in the broad sense of the word.

Much can be learned in this regard by studying the predominating trait of Society in general at any epoch in determining the Architecture most suitable to it, or the Architecture which manifests or shows such predominating trait best, or in other words, Art is generally a reflexion of the stronger passions of the people most in vogue.

Now "Commercialism," or more correctly speaking "Mammonism," is the preponderating feature of the latter part of this Century. I use the Eastern word "Mammonism" as I believe we have no word for such a despicable religion in the Anglo Saxon tongue, which speaks well for

that race in its infancy, the nearest compound is "The Worship of Pelf."

We ought to find, therefore, Art affected seriously by this "Mammonism" both for good and bad—if the foregoing hypothesis is true—and so we find it in many respects.

For example: "Mammonism" says that so much rent has to be gotten out of a certain piece of ground, so up goes a fourteen to twenty story building regardless of all other considerations. The same spirit says we must impress our suppliers with the stability of our concerns; so up springs magnificent Banking buildings, Insurance buildings, Boards of Trade and Exchanges, all devoted to speculating on Production.

In the same way the private individual must not allow another to eclipse him in the ornateness and costliness of his house or he will lose the respect and trust of the community, to which may be credited the striving after novelties and strange effects, a species of Advertising which is another of the predominating features of the times—the same spirit giving rise to the vulgar, nauseating and generally very incorrect descriptions of Dwelling Houses and other buildings which teem in our newspapers and journals; the Reporters dwelling always with unctuousness upon the vast amount of money expended, as if that fact was really the only concomitant worthy of much consideration in the Artistic worth of a thing.

This spirit in like manner we find permeating the poorer class and we find it putting up all manner of extraordinary looking buildings, generally wishing to indicate by their appearance that they are really more costly than they are; a sin carried to excess by the speculating builders.

So we may go on through all the phases of Architecture and perceive that throughout them all this prevailing spirit guides their direction.

The effects upon the Architects themselves of this compulsion of search after novelties is on one side no doubt deteriorating and on another stimulating—but mostly the first upon the younger members of the profession, who are specially tempted by it to leave the sober paths of Truth, Fitness and Strength for the excitement of the search after the Picturesque and Meretricious, thus leading them into all manner of extravagances, pettinesses and prettinesses, and getting notwithstanding sometimes beautiful results, although wanting in the air of Grandeur and Stability necessary for good Architecture.

This "worship of Pelf" may also be the reason of the adoption of the Colonial styles for our homes, as representing the Architecture of the time when America was a dependency of Royalty and had not become yet a Republic, the first representing a higher circle in its hierarchy in the opinion of plutocracy.

Taking the first mentioned sign of this worship—the mania for utilizing every inch of ground as high to the sun as possible—we may see where the legitimate carrying out of its ideas will land us in the end by the discussion in one of our Architectural journals as to the feasibility of doing without natural light and air altogether in buildings in our large cities, allowing the whole area to be built upon by twenty story buildings.

The recommendation was that light should be supplied by electricity and that air and ventilation should be obtained by pumping up air from somewhere in the street space outside the building and making it artificially warm or cold as required and pumping it out again when vitiated.

It is food for surmise what kind of beings or existents

would be developed after a generation passing most of their lives in such a condition—possible worse than the results of our underground system of labor and gaslit offices and backs of dark stores and inside rooms.

Whether from the cause indicated in the paper or from some other, we find in the prevailing style of the Architecture of our present buildings what I am bold enough to consider a bad motif.

We find all the meaningless mouldings and ornaments of the Colonial style adopted, it itself being an ignorant imitation of the European Architecture when it was at about as low an ebb as it ever was, viz., at the Georgian period in England. This leads to the small, petty, uncouth and beaded mouldings which possibly might pass muster when applied to a ladie's cabinet or dressing table, but are simply ridiculous and irritating when used for working in hard marble at the base of a huge building.

The same pettiness is exhibited in the playing with bricks and cast ornaments and arranging them in different positions in and out and so forth, which is appropriate for childhood's days and was in fact done in the infancy of the Romanesque style, but never upon eleven story buildings.

Thus we find that even what there was of good in debased styles imitated nowadays has very often been eliminated and the worst features perpetuated.

Thus e. g.: The useful and appropriate entablature of the Renaissance dividing the several parts of a building has been done away with in their modern editions, and the basement runs into the upper part of the building with no other mark of division than change of material. So all the way up the facade; so that looking up the side of an Ironclad from the bottom of a dry-dock is almost as inviting a view as looking up some of our latter day buildings.

These criticisms are simply made and examples taken from places that we pass every day, for the purpose of better elucidating the matter of this paper, and not as any reflexion upon the Architects themselves, who are doing their best trying to solve a difficult problem. "The Wedding of Art with Mammon," and are all aiding by their mistakes as well as their successes to bring about a better state of affairs Architecturally.

To sum up the matter, the whole world being now, by our improved means of intercommunication both of travel and speech, brought together in no such way as ever before in history, and the whole being dominated by communication, Nationalism is being slowly and surely done away with, and universal commercialism and Architecture to suit, is taking its place, a consummation which is not to be regretted.—W. J. C.

KILN DRIED WOOD.

KILN drying hard woods for carriage purposes has its advocates and its opponents. On the one hand, it is claimed that the wood is rendered more rigid and firmer by kiln drying than when air dried, while on the other it is claimed that kiln drying destroys the life of the wood, and makes it brash and weak. Much of this difference of opinion arises from the conditions to which the wood experimented upon was subjected. Timber cut in the summer, when the flow of sap is abundant and when the fibres are distended, will be damaged badly by kiln drying, especially if the heat is extreme at first. Less damage will be done by running at a low heat for ten or twelve hours, gradually increasing thereafter until the extreme is reached. The damage of thus attempting to dry green timber at a high heat, is due to the watery portions of the sap generating steam, in-

stead of being absorbed by the dry air. The steam thus generated destroys the glutinous portions of the sap, and removes those properties which constitute the life of the wood.

Timber cut in the rest period, when the flow of sap is at its least, and the wood in its most compact state, is less liable to injury from being put into the kiln immediately on being cut, than that cut when the flow is full, but even it may be injured. Experience has proved that the best results are attained by air drying, three to six months, according to the size of the timber, before putting it into the kiln, and then raising the heat gradually for twenty-four hours. The arrangement of the kilns to insure an escape for excess of moisture, and to control and regulate the heat, must be of the best character.

Experts who have given special attention to the matter of kiln drying, while claiming much for kiln dried timber that has been skillfully manipulated, admit that the best of timber can be rendered worthless if the correct principles governing the process are not followed to the letter.—*The Hub, Sept., 92.*



WITHIN the last few years the Southern Pacific R. R. Company has been building station houses at some of their stopping places. We present a view of one at San Carlos, about twenty-five miles from San Francisco.

THE SUBLIME AND BEAUTIFUL.

By Edmund Burk.

Continued from page 88.

PART I.—THE RECAPITULATION.

To draw the whole of what has been said into a few distinct points:—The passions which belong to self-preservation turn on pain and danger; they are simply painful when their causes immediately affect us; they are delightful when we have an idea of pain and danger, without being actually in such circumstances; this delight I have not called pleasure, because it turns on pain, and because it is different enough from any idea of positive pleasure. Whatever excites this delight, I call *sublime*. The passions belonging to self-preservation are the strongest of all the passions.

The second head to which the passions are referred with

relation to their final cause, is society. There are two sort of societies. The first is, the society of sex. The passion belonging to this is called love, and it contains a mixture of lust; its object is the beauty of women. The other is the great society with man and all other animals. The passion subservient to this is called likewise love, but it has no mixture of lust, and its object is beauty; which is a name I shall apply to all such qualities in things as induce in us a sense of affection and tenderness, or some other passion the most nearly resembling these. The passion of love has its rise in positive pleasure; it is, like all things which grow out of pleasure, capable of being mixed with a mode of uneasiness, that is, when an idea of its object is excited in the mind with an idea at the same time of having irretrievably lost it. This mixed sense of pleasure I have not called *pain*, because it turns upon actual pleasure, and because it is, both in its cause and in most of its effects, of a nature altogether different.

Next to the general passion we have for society, to a choice in which we are directed by the pleasure we have in the object, the particular passion under this head called sympathy has the greatest extent. The nature of this passion is, to put us in the place of another in whatever circumstance he is in, and to affect us in a like manner; so that

this passion may, as the occasion requires, turn either on pain or pleasure; but with the modifications mentioned in some cases. As to imitation and preference, nothing more need be said.

THE CONCLUSION.

I believe that an attempt to range and methodise some of our most leading passions would be a good preparative to such an inquiry as we are going to make in the ensuing discourse. The passions I have mentioned are almost the only ones which it can be necessary to consider in our present design; though the variety of the passions is great, and worthy, in every branch of that variety, of an attentive investigation. The more accurately we search into the human mind, the stronger traces we everywhere find of His wisdom who made it. If a discourse on the use of the parts of the body may be considered as an hymn to the Creator; the use of the passions, which are the organs of the mind, cannot be barren of praise to Him, nor unproductive to ourselves of that noble and uncommon union of science and admiration, which a contemplation of the works of infinite wisdom alone can afford to a rational mind: whilst referring to Him whatever we find of right or good or fair in our-

BUILDING LAW.

THE Law News Bureau of Chicago will furnish for publication in the CALIFORNIA ARCHITECT AND BUILDING NEWS, a series of original articles on the laws relating to the building interests. These articles will interest architects, builders and all persons in any way connected with the building trades.

BUILDING CONTRACTS.

The nature of a building contract is such that it frequently happens, in the course of its performance, that differences arise between the parties to it which render recourse to litigation necessary. A great deal of this could be avoided if in making the contract itself, greater care were used and more attention were paid to the legal principles involved. At the outset of the consideration of the subject of building contracts, it may be said that there is nothing in the law that requires that the contract be in writing unless it is some special statute or provision with reference to mechanics' liens. But as to the validity of the contract itself it is as good verbal as it is written unless by its terms it is not to be performed within one year. This is owing to the operation of the statute of frauds, under which a contract is not valid if by its terms it is not to be performed within one year, unless it is in writing and signed by the parties to be charged. But this does not mean necessarily a contract which is not to be performed within a year, but a contract which by its terms and upon its face cannot be performed within that time. However, as a matter of safety and practical convenience, it is a fact that building contracts are usually reduced to writing. When so written, great care should be exercised for precision of expression that there may be no misconception of its terms, and it should carefully provide for all possible contingencies which are likely to arise. The building trade is one which is subject to fluctuations of the market, to the exigencies of the weather and in these days to more or less interruption from labor troubles and all these things which are of common knowledge to the practical builder should be carefully and fully covered in the contract for the erection of a building. It should be borne in mind in entering into a written contract, that when the agreement is reduced to writing, all prior verbal negotiations are merged into that writing, and if there have been any verbal negotiations which are contrary to the letter of the written contract, or if there have been negotiations which are not covered by the contract, the written agreement is supposed to have been entered into with deliberation and to have superseded those prior and informal agreements. It should be borne in mind that the written contract is but the evidence of the agreement of the parties and of itself is of no binding force. Therefore should an agreement be reached and it be reduced to writing and either party fail to sign it that does not affect the validity of the contract itself. Either party upon failure of the other to comply with the terms of the contract, may proceed against the other for damages as if the contract had actually been signed. Of course this principle of the law does not apply to those contracts to which reference has heretofore been made, which are void under the statute of frauds, unless they are reduced to writing and signed by the parties. It frequently becomes the duty of the court after parties have entered into contract to construe those contracts. In the case of agreements involving special trades like building contracts, the language employed is frequently of a technical nature. This language when presented to the court for construction is subject to explanation and definition by persons versed in the trade. Other than that the contract must

selves, discovering His strength and wisdom even in our own weakness and imperfection, honoring them where we discover them clearly, and adoring their profundity where we are lost in our search, we may be inquisitive without impertinence, and elevated without pride; we may be admitted, if I may dare to say so, into the counsels of the Almighty by a consideration of His works. The elevation of the mind ought to be the principal end of all our studies; which if they do not in some measure effect, they are of very little service to us. But, beside this great purpose, a consideration of the rationale of our passions seems to me very necessary for all who would affect them upon solid and sure principles. It is not enough to know them in general: to affect them after a delicate manner, or to judge properly of any work designed to affect them, we should know the exact boundaries of their several jurisdictions; we should pursue them through all their variety of operations, and pierce into the inmost, and what might appear inaccessible, parts of our nature.

"Quod latet arcana non enarrabile fibra."

Without all this it is possible for a man, after a confused manner, sometimes to satisfy his own mind of the truth of his work; but he can never have a certain determinate rule to go by, nor can he ever make his propositions sufficiently clear to others. Poets, and orators, and painters, and those who cultivate other branches of the liberal arts, have, without this critical knowledge, succeeded well in their several provinces, and will succeed: as among artificers there are many machines made and even invented without any exact knowledge of the principles they are governed by. It is, I own, not uncommon to be wrong in theory, and right in practice; and we are happy that it is so. Men often act right from their feelings, who afterwards reason but ill on them from principle: but as it is impossible to avoid an attempt at such reasoning, and equally impossible to prevent its having some influence on our practice, surely it is worth taking some pains to have it just, and founded on the basis of sure experience. We might expect that the artists themselves would have been our surest guides; but the artists have been too much occupied in the practice: the philosophers have done little; and what they have done, was mostly with a view to their own schemes and systems and as for those called critics, they have generally sought the rule of the arts in the wrong place; they sought it among poems, pictures, engravings, statues and buildings. But art can never give the rules that make an art. This is, I believe, the reason why artists in general, and poets principally, have been confined in so narrow a circle: they have been rather imitators of one another than of nature; and this with so faithful an uniformity, and to so remote an antiquity, that it is hard to say who gave the first model. Critics follow them, and therefore can do little as guides. I can judge but poorly of anything whilst I measure it by no other standard than itself. The true standard of the arts is in every man's power; and an easy observation of the most common, sometimes of the meanest things in nature, will give the truest lights, where the greatest sagacity and industry, that slights such observation, must leave us in the dark, or, what is worse, amuse and mislead us by false lights. In an inquiry it is almost everything to be once in a right road. I am satisfied I have done but little by these observations considered in themselves; and I never should have taken the pains to digest them, much less should I have ever ventured to publish them, if I was not convinced that nothing tends more to the corruption of science than to suffer it to stagnate. These waters must be troubled before they can exert their virtues. A man who works beyond the surface of things, though he may be wrong himself, yet he clears the way for others, and may chance to make even his errors subservient to the cause of truth. In the following parts I shall inquire what things they are that cause in us the affections of the sublime and beautiful, as in this I have considered the affections themselves. I only desire one favor—that no part of this discourse may be judged of by itself, and independently of the rest; for I am sensible I have not disposed my materials to abide the test of a captious controversy, but of a sober and even forgiving examination, that they are not armed at all points for battle, but dressed to visit those who are willing to give a peaceful entrance to truth.

stand for construction upon the language which is employed according to the ordinary use of the language. While it is true that the execution of a written contract thereby abrogates any verbal negotiations which may have been entered into by the parties prior to the execution of the writing, it is perfectly competent to modify that written contract after it has been executed by verbal agreements from time to time as the work progresses. For instance, where a contract provides that there shall be in no case any allowance for extra work, if extras are demanded by the owner upon a special verbal contract they are furnished by the builder and the recital in the contract that there will be no allowance for extras will not prevent the contractor from recovering their value provided he can show a special verbal contract. Or, if during the progress of the work, the owner makes such changes in the plans and specifications that it is practically impossible to trace in them any likeness to the plans and specifications upon which the original contract was made, then the builder is at liberty to disregard his original contract both as to terms and price and to charge for the work its reasonable worth and value upon a contract for an agreed price. In one case a contractor found that he was losing money and refused to go on. The owner thereupon verbally agreed that he would make him good for all the labor and stock he might employ, and further said that the contractor should suffer no loss by completing his contract. This agreement though verbal was valid and binding upon the owner and upon the completion of the contract; the builder was entitled to recover in addition to the contract price such an amount as he could show he had expended over and above the price agreed upon in the written contract. These are cases in which the contractor assents to the changes which are made. But if a contract has been entered into with reference to certain specifications and the work is placed under supervision of the architect who prepared the specifications, the architect has no right, without the consent of the contractor, to change the specifications upon which the contract was based. And upon his attempt to do so, the contractor may either abandon the work and recover for what he has already done or if he chooses he may go on and charge such additional price as the changes in the work may make it worth. In making contracts with corporations for buildings the builder should be careful that the contract is one that the corporation or the officers who seek to make it have the authority to make. Corporations being special creatures of the statute are held to a strict enforcement of their charter rights, and unless the contracts which they make are within the scope of the charter which they have from the state, it is in the power of any stockholder to proceed to restrain the completion of the contract. In general, a corporation has the right to erect all the buildings necessary to conduct the business in which it is engaged. To go beyond this they must have special authority either from the stockholders themselves or from the laws under which they operate. Having made a valid and binding contract there are many rights and duties which grow out of it, from which there springs a large amount of litigation. If the parties to these contracts on both sides thoroughly understood their rights and their duties, and knew what the law requires of them and what it would enforce upon them, much of this litigation could be avoided. It is upon that consideration that we shall proceed to consider in future articles some of the responsibilities and liabilities growing out of building contracts. This will include the relations of architects, subcontractors, material men, laborers, and the relations

between the contracting parties with reference to breaches of the contract and other responsibilities growing out of the relations of contractor and owner. It is believed that such a consideration of the question will enable the intelligent contractor to avoid many of the harassing features of the business.

The California State World's Fair board has given Miss Ray Beveridge of this city permission to set up and operate a miniature blacksmith's forge in the State Building.

Miss Beveridge is a graduate of the Industrial Department of the Cogswell Polytechnic Institute of this city, and is said to be an expert at the anvil. In modeling also she is an artist and bids fair to win fame in that line. Ex-Governor John L. Beveridge of Illinois is an uncle of this talented young lady.

New York is to have a new plumbing law.



THE FORTNIGHTLY REVIEW for August has an article on the "Working Lady in London," by Miss March-Phillipps, giving descriptions of dwellings and lodgings for working people which are of interest to architects.

LIPPINCOTT'S for September has so many interesting articles descriptive of matters on this side of the Continent that it might be called a Pacific Coast edition.

THE COSMOPOLITAN for September has a chapter on the "Advance of Education in the South," giving a description of some of the labor and technical schools.

THE ENGINEERING MAGAZINE for September has an article treating on "Tall Office Buildings, Past and Future" by Dankmar Adler.

THE HUB for September is full of good articles for the wood-worker, among which are the following:—"The Division of Labor in Large Workshops;" "The Abused Grindstone;" "Repairing and Varnishing Old Work;" "Kiln-Drying Hardwood" and "Education of Wood-Workers."

THE CINCINNATI LANCET-CLINIC for September 10th, has a chapter on the "History of Cholera," by T. C. Minor, M. D., and one from J. C. McMechan, M. D. These articles suggest many features of interest to architects engaged in planning hospitals for infectious diseases.

We have received a copy of the introduction to POOR'S MANUAL of the Railroads of the United States for 1892. H. V. and H. W. Poor, publishers, 70 Wall street, New York. It contains a vast amount of useful information, and we shall quote from it at different times during the coming year.



Otzer, Arch.

BRITTON & REY PHOTO LITH.

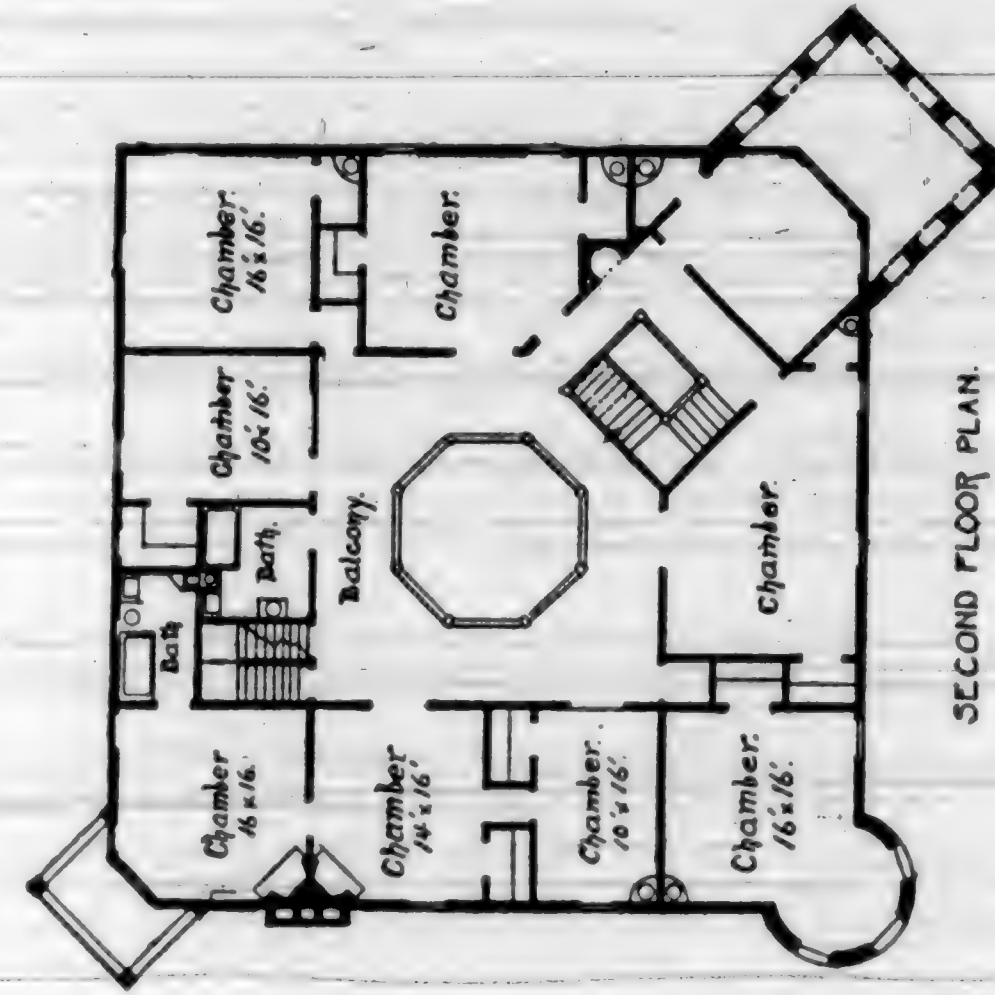
Wohnhaus des Baumeister Olzen in Berlin.
Thurmstrasse.

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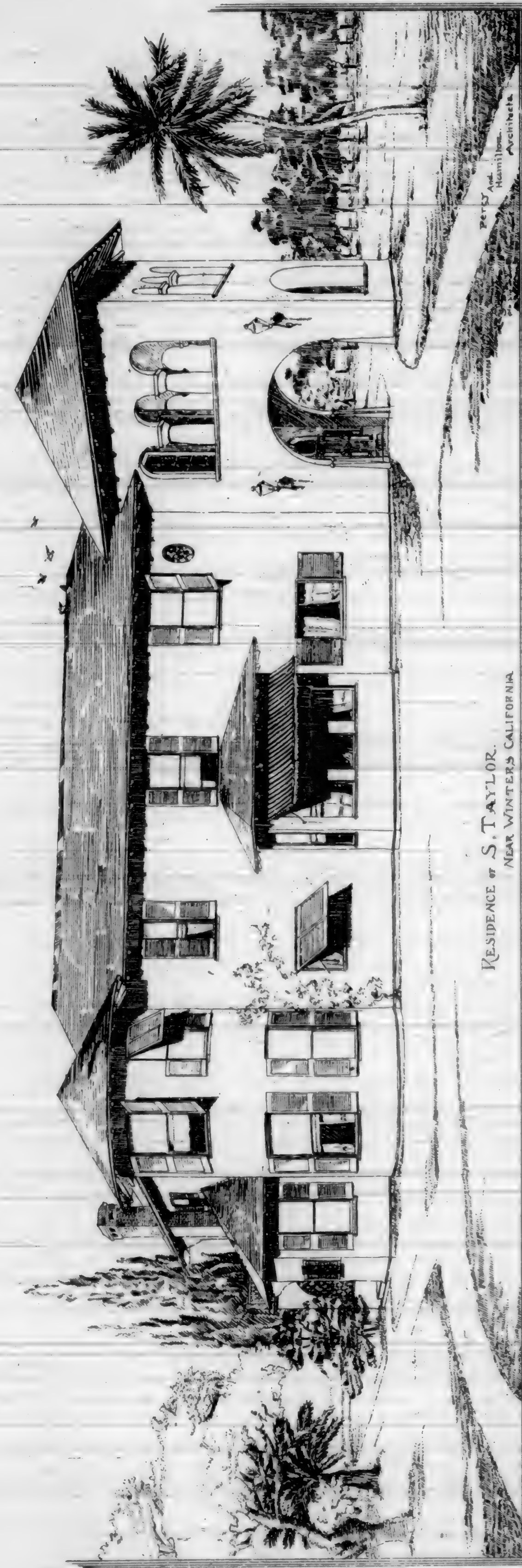




FIRST FLOOR PLAN



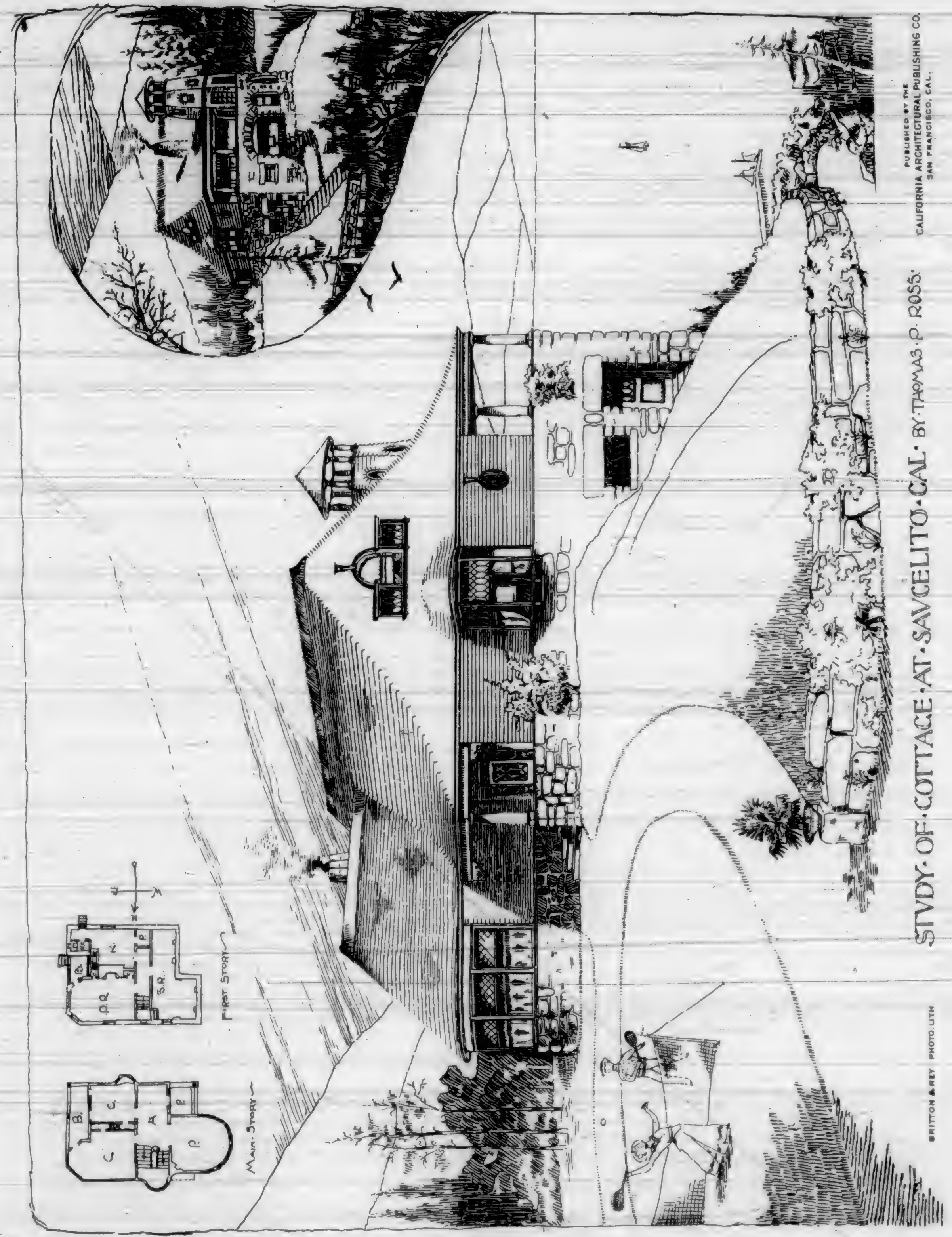
SECOND FLOOR PLAN



RESIDENCE OF S. T. TAYLOR.
NEAR WINTER'S CALIFORNIA

BRITTON & REY PHOTO LITH.

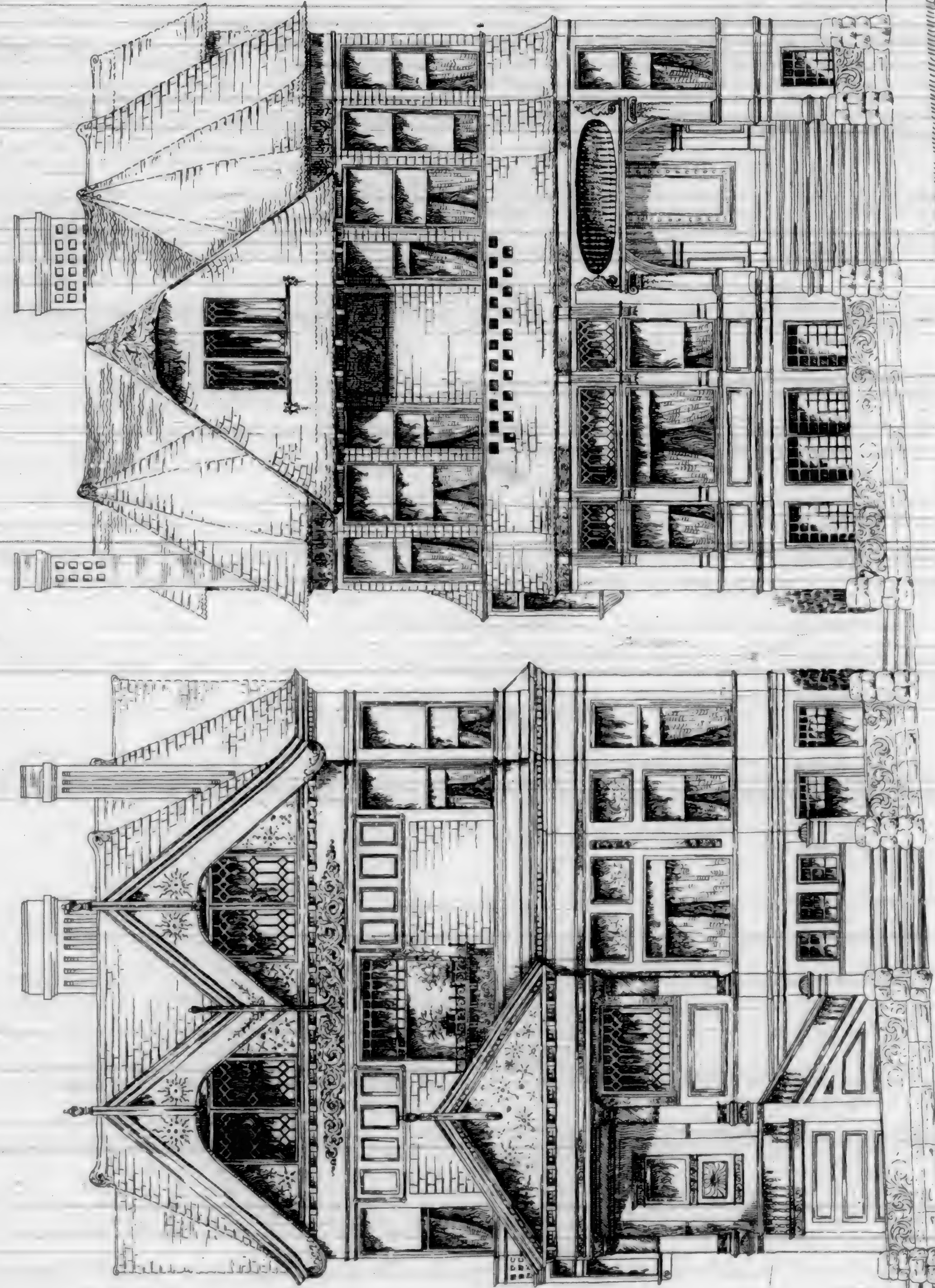
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STUDY OF COTTAGE AT SAN CELITO, CAL. BY THOMAS P. ROSS.

BRITTON & REY PHOTO LITH.

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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.
H. T. BESTOR, Sec.

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

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.

CALIFORNIA ELECTRICAL SOCIETY, meets the first and third Monday evenings of each month at the Academy of Sciences Building.

GEO. P. LOW, Pres.
W. I. CROSETT, Sec.

C. O. POOLE, Vice-Pres.
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 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

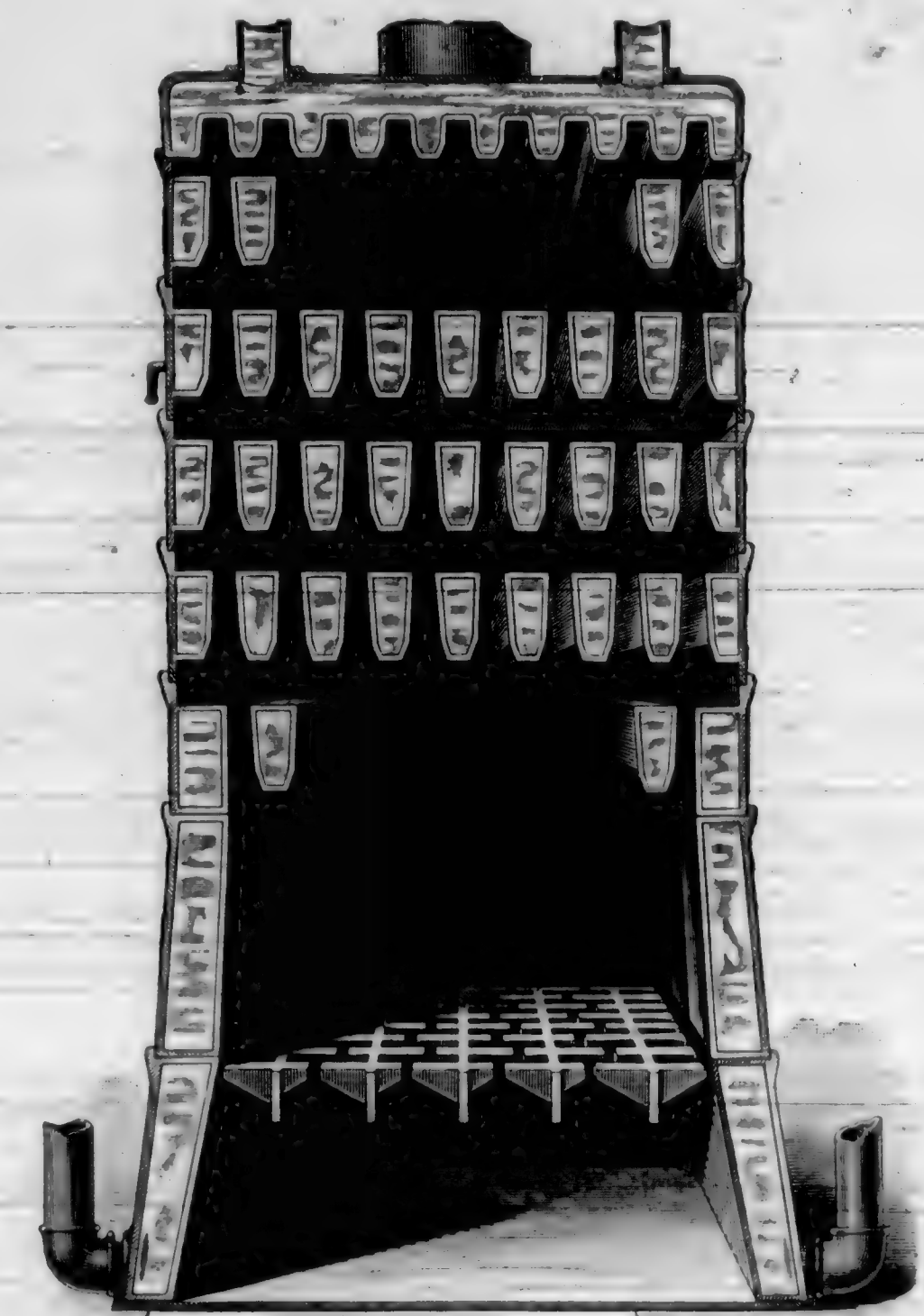


FIG. 2. SECTIONAL VIEW SHOWING WATER SPACES.

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.

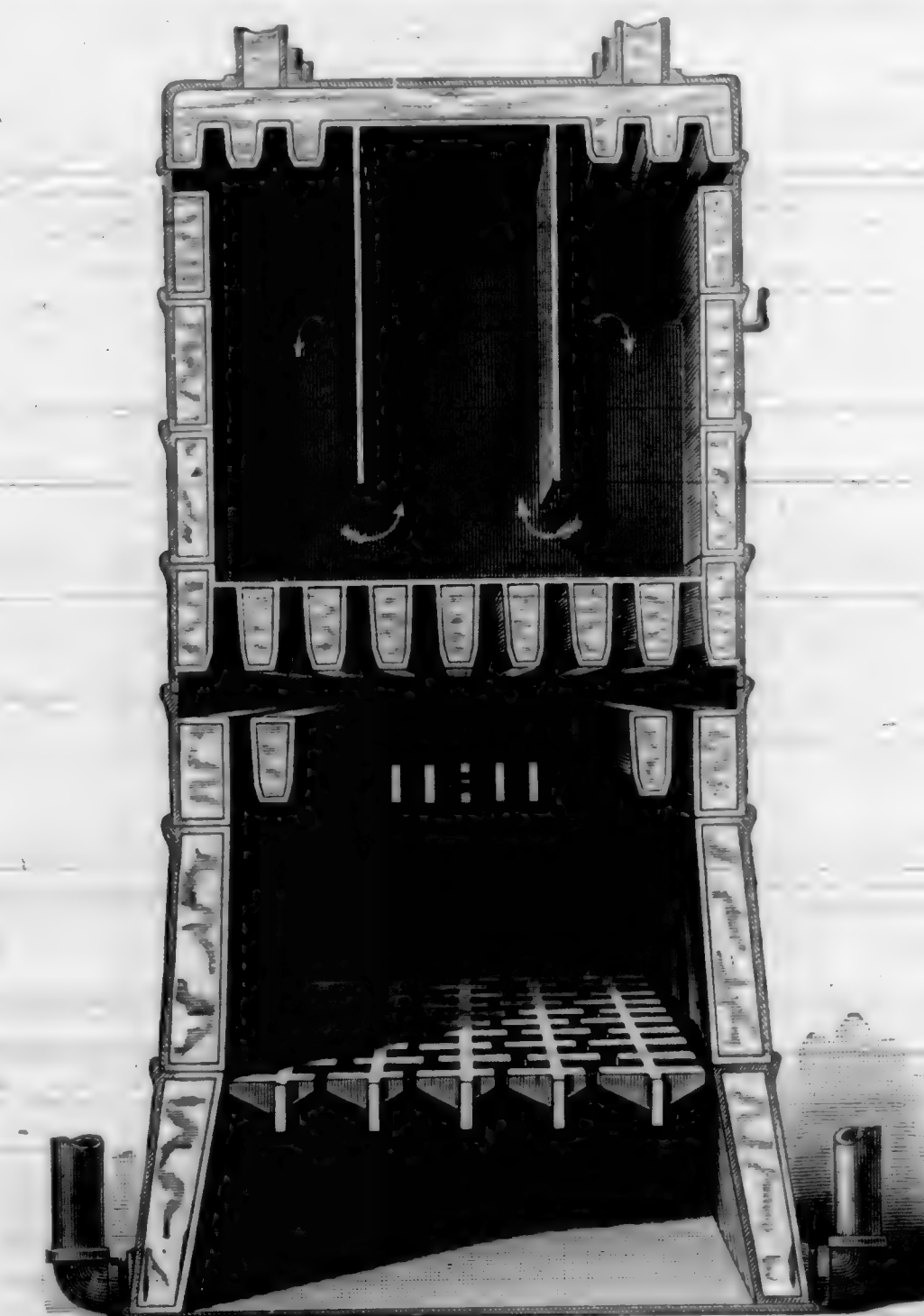


FIG. 3. SECTIONAL VIEW SHOWING RETURN FLUES.

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, \$788; signed, July 28; filed, July 29; payments, \$250, primed; \$300, completed; \$238, 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; \$861, 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, Smilie 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 Lusk; 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 Kaseh; 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 Cornice 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 23rd. 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; \$622.50, 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. Dunlap; 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; \$865, 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 1