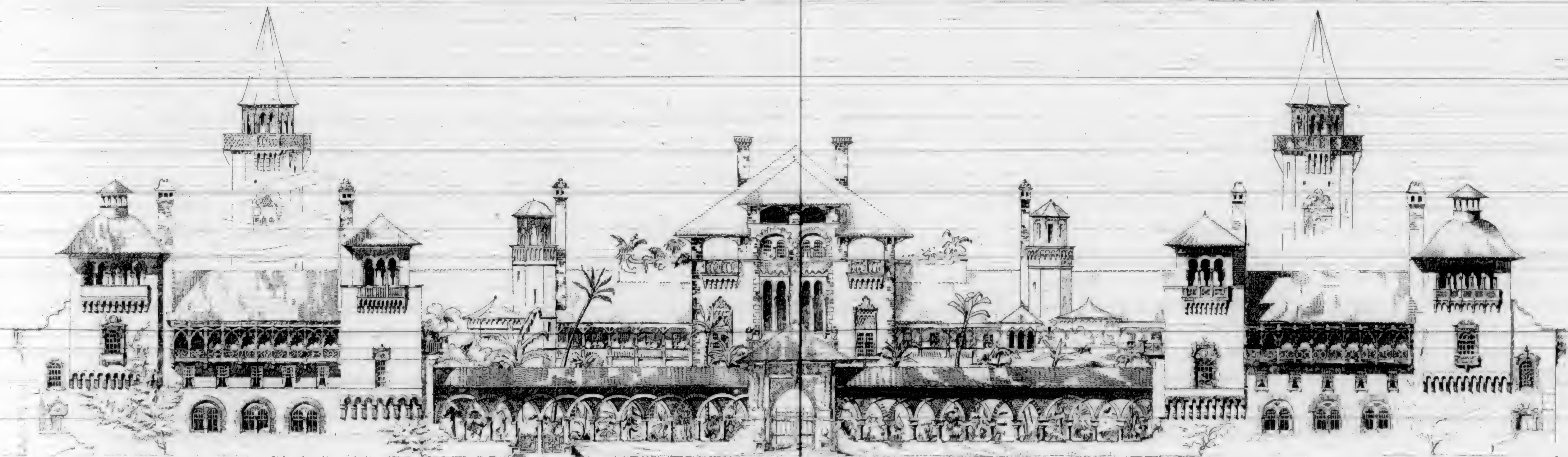




CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO

BRITTON & REY PHOTO LITH.

VOL. XVI No 3 MAY 1895

PROPOSED HOTEL NEAR GOLDEN GATE PARK:
SAN FRANCISCO - CALIFORNIA:
ARCHITECT - SAMUEL NEWSON:

NOTICE OF MEETINGS.

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

SOUTHERN CALIFORNIA CHAPTER AMERICAN INSTITUTE OF ARCHITECTS, meets first Wednesday of each month at 114 Spring street, Los Angeles, Cal.
 OCTAVIUS MORGAN, Pres. A. M. EDELMAN, Vice-Pres.
 ARTHUR B. BENTON, Sec'l. AUGUST WACKERBARTH, Treas.

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

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

BOOKS AND PERIODICALS.

THE NEW SCIENCE REVIEW. A miscellany of modern thought and discovery, conducted by J. M. Stoddart, published in Philadelphia, New York and London.

This quarterly review made its fourth appearance in April and continues to sustain the promise made in the opening number—while at times it flutters near the borders of the unknown. It contains much of practical and useful information, along side of John W. Keely "Operation of the Vibratory Circuit."

"Where the Steamboat was Born" by Maggie Symington, as well as autobiographical notes by Prof. Richard A. Proctor, are very delightful to read, and will prove of interest to the general reader while "Ether and its Functions," by Geo. Fraser Fitzgerald, F. R. S., Trinity College, Dublin, belong to the realm of science; "Railroad Facts and Figures" by Melville Philips come home to the hearts of all, as who does not travel nowadays. The facts here given would have been thought visionary and impossible fifty years ago.

THE YELLOWSTONE NATIONAL PARK. "Sketches of Wonderland" is the title of a beautiful pamphlet published by the Northern Pacific Railroad of which Chas. S. Fee, St. Paul, Minn., is the general passenger and ticket agent, it will be sent to any address on receipt of six cents in stamps. Anyone on the lookout for the summer outing, cannot do better than to send for a copy. This is no common advertising sheet, but truly a work of artistic merit, that no one can examine with care, without a desire to see something of the "Wonderland" so graphically described.

OUR DUMB ANIMALS.—This always welcome publication is before us, as ever its hand and pen is raised against cruelty to dumb animals in any form, but more especially to

the cruelty of docking horses. As a specimen of Mr. Angell's direct way of writing we quote the following from the April number, after giving extracts from "The Nineteenth Century" by Dr. Geo. Fleming, a distinguished English veterinary surgeon, he adds: "Any man who, having read it, will be guilty of causing another Polo pony or other horse to be so mutilated, is either a heartless fool, a heartless scoundrel, or an incomprehensible idiot."

The following extract shows that Mr. Angell is as full of fun as he is full of mercy:

Flossie is six years old. "Mamma," she called one day, "If I get married will I have to have a husband like pa?" "Yes," replied the mother, with an amused smile. "And if I don't get married will I have to be an old maid like Aunt Kate?" "Yes." "Mamma,"—after a pause—"it's a tough world for us women, ain't it!"

THE FORTNIGHTLY REVIEW for April, 1895, published by Leonard Scott Publication Company, 231 Broadway, New York, comes to hand full of good things as usual, among others one that should be read with care by all lovers of their country, and a sound currency, we refer to "The Monetary Question" by Honorable Alex. Del Mar.

GEYER'S STATIONER.—Devoted to the interests of the stationary, fancy goods and notion trades, a weekly journal published in New York.

As all the business world is interested in good stationary, it is no wonder that a large mass of information can be accumulated every week on this subject, still the reader cannot help being astonished at the great number of useful and pretty things in the stationary line that this journal calls attention to. Notwithstanding the information is designed to call the attention of the retail stationer of what he may want and where he may get it, the general reader cannot fail to find much of interest even in the advertising column.

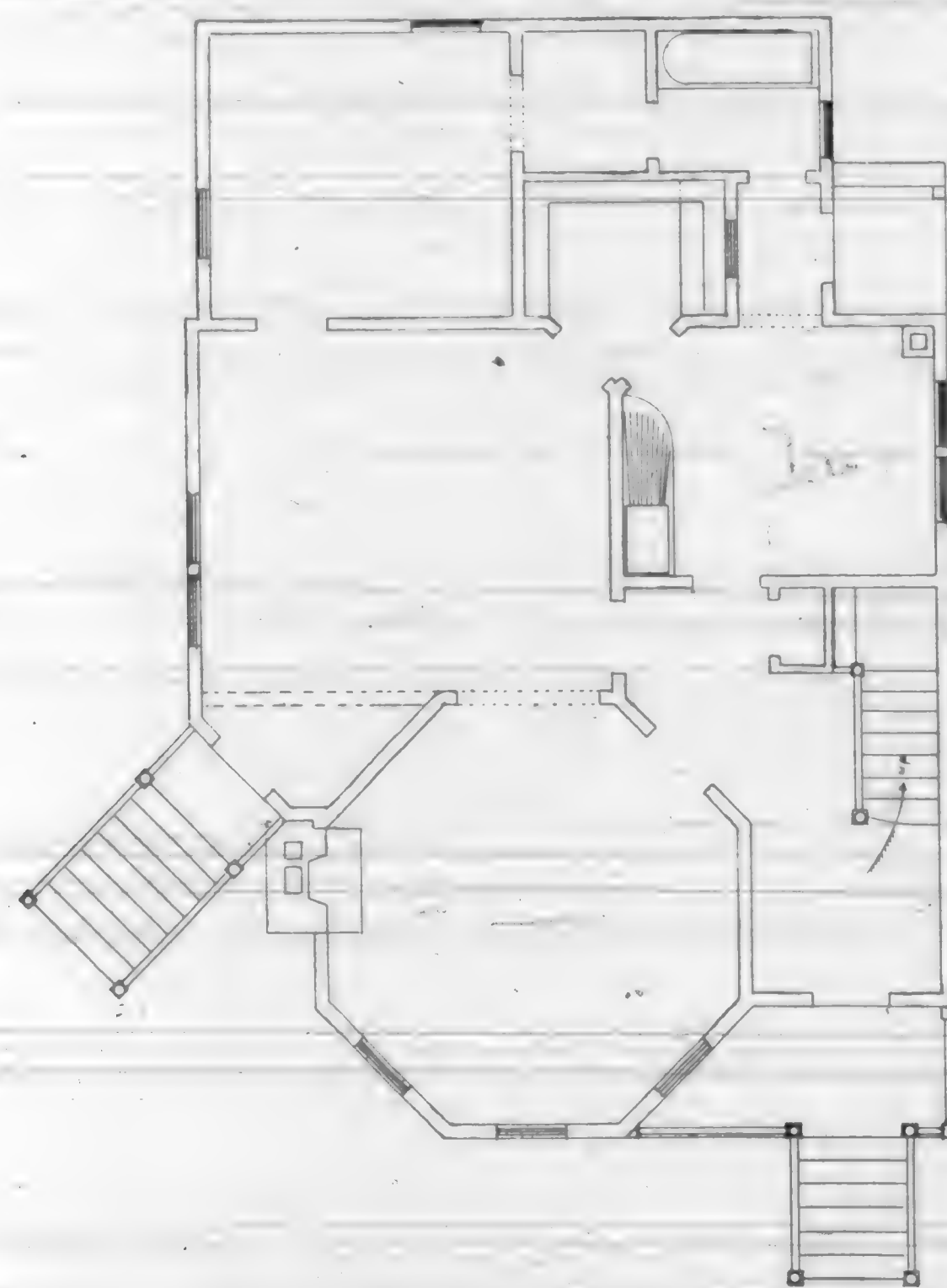
BOSTON MUSEUM OF FINE ARTS.

THE Boston Museum of Fine Arts has recently acquired what is beyond comparison the most important collection of Greek vases ever brought to this country. It comprises fifty-three specimens, and those who are familiar with Greek ceramics will appreciate their value from the fact that they include signed examples of such masters as Euphronios, Hieron, Hermogenes, Kachrylion, Duris, Brygos, Pamphaios, Nikosthenes and Xenokles. A number of them contain interesting inscriptions besides the makers' names; but the most remarkable feature of the collection is its intrinsic beauty. Every specimen is a masterpiece of the type to which it belongs, both in shape and in the quality of the drawing upon it, and will appeal to the artist no less than to the archæologist. Boston is not the only city to be congratulated upon this splendid acquisition; for the opportunity it gives to all American students to see Greek pottery at its very best, and the stimulus which is hereby given to the study of the subject, cannot fail to be of benefit to the country generally. It is pleasant to learn that the museum was able to make this purchase out of its own funds, it having received several important bequests lately for the purchase of works of art of various periods.—*Architecture and Building.*

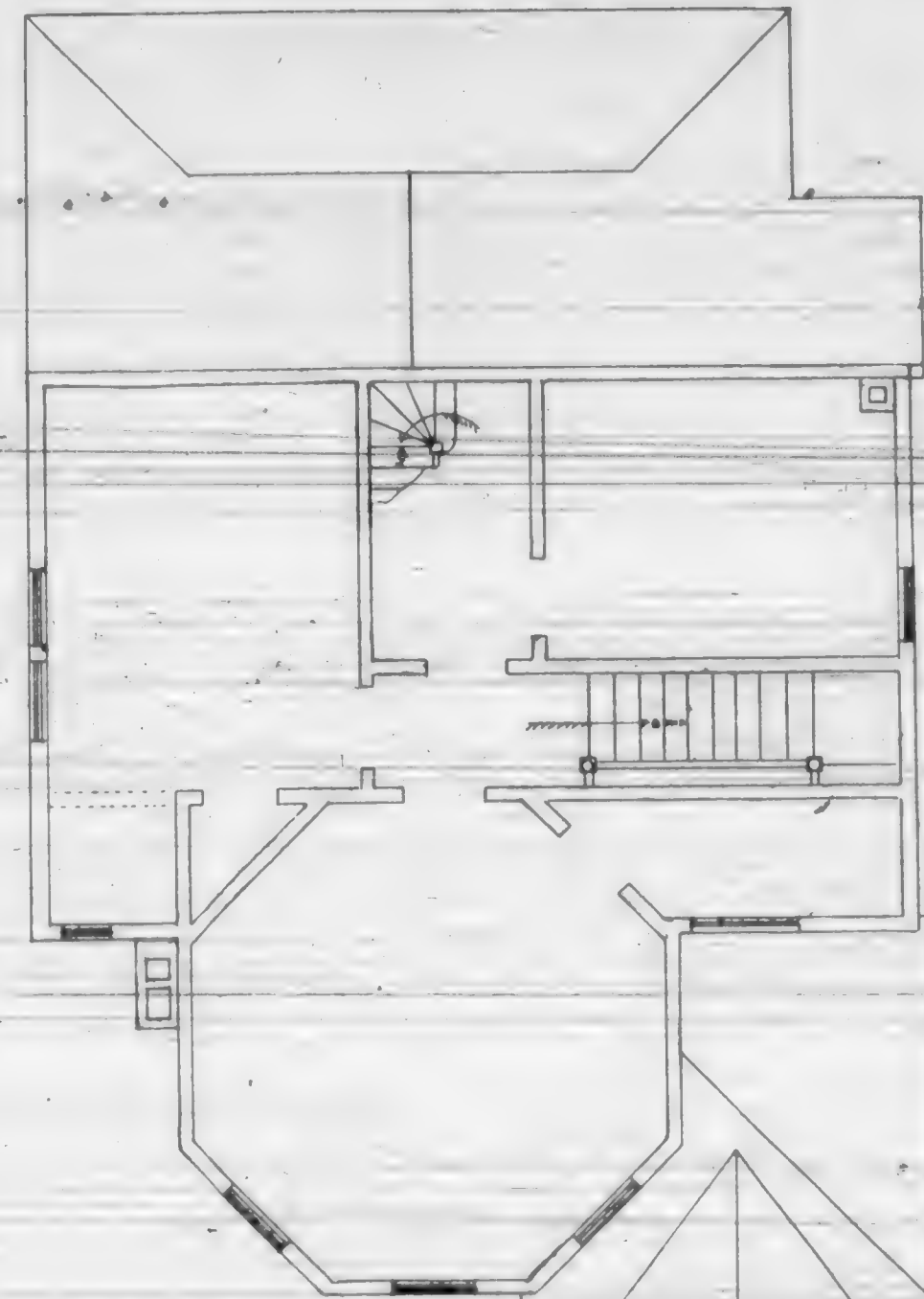


RESULT OF THE CAIRO MUSEUM COMPETITION.

CONSUL-General Penfield, at Cairo, Egypt, reports to the Department of State that in the recent competition of designs submitted for the new Egypt Museum, in Cairo, none of the American competitors were adjudged a prize. The prizes, five in number, and aggregating \$5,000, were secured by Paris architects. The contest was open to architects of the world, and eighty-eight, representing nearly every European country, as well as the United States, participated in the competition.—*Exchange*.



FIRST FLOOR PLAN



SECOND FLOOR PLAN

LEGAL DECISIONS.

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

INJURIES FROM BRICK FALLING FROM A WALL.—The fact that a contractor failed to erect proper scaffolding guards about a building because they could not be erected without occupying adjacent property, and that he was prohibited from so occupying it, will not relieve him from liability for an injury to a third person through the absence of such guards.

One superintending the construction of a building, as agent of the contractor, is equally liable with his principal for such injury, or from the negligent construction of the wall.

Mayer v. T. H. Building Co., Supreme Ct. Ala., 16 So. Rep. 620

RIGHTS AND LIABILITIES OF CONTRACTORS.—Where a contractor sues for the reasonable value of extra work, without setting out the building contract, the defense that its value has not been submitted to arbitrators, as stipulated by the contract, is waived by pleading to the merits.

Where the specifications require the contractor to rub down all brick work on street sides, he cannot claim pay for cleaning street walls with acid as for extra work.

A modification of a building contract so as to require pressed brick walls, impliedly requires pressed-brick chimneys, which are a part thereof.

A contractor is not liable for failure to keep the walls plumb, as required by the contract, where the defect is due to the addition of an extra story without strengthening the foundations.

The measure of damages for failure to use the grade of plastering required by a building contract is the difference between the class of work contracted for and that which was furnished.

Chamberlin v. Hibbard, Sup. Ct. Oregon, 38 Pacific Rep. 4372.

OBSTRUCTION OF LIGHT.—The easement of light and air cannot be acquired, according to the general current and weight of authority in this country, even by prescription, and of course no right to object to the obstruction of one's windows by a wall erected on the land adjoining can be said to exist. Therefore, one who leases rooms in a building is not entitled to damages from an adjoining land owner because the latter builds so as to shut off the lessee's light on the side of the leased premises.

Lindsey v. Lst. Nat. Bank Asheville, 20 S. E. Rep. 821.

DAMAGES FOR BREACH OF BUILDING CONTRACT.—Where a building contract stipulated that the contractor should pay ten dollars per day as liquidated damages for every day's delay after a certain date, and the building was not finished at such date, and there is no evidence by which the actual damages can be ascertained, the amount of the recovery is governed by the stipulation. Where the owner entered and occupied a part of the building before it was finished, the damages are recoverable only from the time it was agreed to be done and the date on which the owner entered it.

If the stipulation greatly exceeded the actual loss, if there be no approximation between them, and this be made to appear by the evidence, then and then only, should the actual damages, under such a contract, be the measure of recovery.

Collier v. Betterton, Supreme Ct. Tex., 20 S. W. Rep. 467.

MECHANICS' LIEN IN NEW YORK.—Under the laws of New York, 1885, c. 342, sec. 5, providing that mechanics' liens shall be preferred to any conveyance, judgment, or other claim which was not docketed or recorded at the time of filing the notice of lien, a

lien filed after the death of the owner for work done before his death does not attach to the interest of the owner's devisees.

The court said: No provision is found in the statute giving the claimant the right to acquire a lien after the death of the owner. Mechanics' liens are created by statute, and while the law should receive a liberal construction, so as to secure the beneficial purpose had in view by the legislature, yet, as it creates a remedy unknown to the common law, it may not be extended to cases not fairly within the general scope and purview of the statute.

Turbrid v. Wright, Court of Appeals, 39 N. E. Rep. 640.

MEASURE OF DAMAGES FOR BREACH OF CONTRACT.—Where a party has contracted to move a building for a stipulated sum of money, and then neglects or refuses to perform, the other, if he has the work done by some one else, is entitled to recover as damages the difference between the contract price and the reasonable cost or expense of performance in accordance with the contract, if there is any difference.

Anderson v. Nordstrom, Supreme Ct. Minn., 61 N. W. Reporter 1132.

BUSINESS MOSAICS.

Revere Rubber Co., 527 Market street, San Francisco, manufacturers "Schenck" Swinging Hose Reel. The company claim the use of this hose will reduce the Insurance rate. It is adapted for mills, factories, hotels, public buildings and general inside fire protection.

Syms—"I don't understand this question of labor and capital." **GARNER**—"It's very simple. Labor wants capital at the least possible exertion, and capital wants labor at the very smallest outlay."—*The Wasp*.

If you are going to build use Neponset Papers! Why? Because if you use this paper, manufactured solely by F. W. Bird & Son, you will have a paper that is sure to give satisfaction as it makes a handsome and permanent covering for roofs and sides of store houses, factories, poultry houses, farm and other outbuildings. It is very much cheaper than any tar and felt or composite roof, and is a great deal less in cost than shingles. So much for Neponset Red Rope Roofing Fabric, also Neponset Black Building Paper, water, air and vermin proof.

McGilder—"Prize fighters are nothing more than a lot of beggars." **O'JONES**—"How do you make it out?" **McGILDER**—"Because they are always striking somebody for money."—*Brooklyn Eagle*.

On or before May 31st our Principal Office, heretofore located at N. W. corner Pine and Montgomery streets, will be removed to Foot of Third street, below Third and Townsend street R. R. Depot, and on the line of the Kearny and Third street, Electric road; all Market Street Cable and Mission Street Electric cars transfer to this line.

We will maintain an Uptown Order Office at 405 Montgomery street, corner of California street, and will be pleased to see you at either office. Our telephone numbers are:—Principal Office, Foot of Third Street, Main 1047. Uptown Order Office, 405 Montgomery street, Main 1480.

If you have no gas cooking stove in your house, do not delay ordering one at once. Your wife will thank you, your coal bill will decrease enough to pay for the extra gas, and you save a lot of bother in dust and ashes. The San Francisco Gas Light Co., Stove department, 226 Post street, will find exactly what you want.

She—"Do you believe in spirits?" **He** (from Kentucky)—"I do when they are good."—*Pek's Son*.

When a man decides upon improving his shop, factory or farm, by the addition of power, he naturally looks for something entirely up to date. He investigates considers, and finally decides to buy an Ajax Coal Oil Gas Engine as meeting his requirements more fully, and being safer, than any other power obtainable. Palmer & Rey, San Francisco, Cal., the manufacturers of this engine, have carried the gratitude of the public by placing within its reach a reliable, economical power, that defies the restrictions of insurance companies. It is the latest and best.

"Does this roof leak always?" **AGENT**—"Oh, no, ma'am, only when it rains."—*Chicago Inter-Ocean*.

M. S. James, Pacific Coast Representative of the J. L. Mott Iron Works has his office at room 35 Flood Building, San Francisco. The quality of the goods manufactured and supplied to the trade by this firm are too well-known to require a recommendation from us, for like good wine they requires no bush.

Nevertheless, to those about to build, or renovate their premises we would strongly urge the importance of giving Mr. James a call before deciding what class of plumbing materials to order, as anything from the smallest house to the largest hotel, is greatly improved by having first-class materials used for all plumbing required. It is a great satisfaction to deal with a house that you are sure of getting your moneys worth.

"The Old May Flower" Roofing Plates, Re-dipped Old Process, Extra Quality. These plates are guaranteed to be coated with 19 lbs. metal on each box of 14x20 and 38 lbs. metal on 20x28, which is a heavier and better coating than any other works put on Re-dipped Terns. Made of the softest and best quality of steel, true to size, cut square and free from blisters and other imperfections.

Architects and builders should bear these facts in mind when making specifications where durable and first-class roofs are desirable. Sole importers, W. W. Montague, 309, 311, 313, 315 and 317 Market street, San Francisco, and 122 North Los Angeles street, Los Angeles.

Mrs. Hunter—"I like the flat because it has so many nice closets in it." **AGENT**—"Great Scott, madame! Those are not closets—they are bedrooms."—*Wasp.*

Ives Patent Sash Locks.—It is important that every house should be made as safe as possible against the attack of sneak thieves, nothing that has been devised in the way of Sash Locks appear to answer the purpose so well as the above mentioned patent sash lock manufactured only by Hobart B. Ives Co., New Haven, Conn. The important features are in securely locking when opened or closed, and simultaneously carrying the Meeting Rail in position, and drawing them closely together. Price list mailed free showing fifty styles in Sash Locks and door bolts. See their advertisement on page xi of this journal.

"So old Squibbs is ill eh?" "Yes; was so bad yesterday that they considered a consultation necessary." "Consultation of doctors?" "No; lawyers."—*Judge.*

Trade Notice.—Messrs. N. & G. Taylor Co., Tinplate Manufacturers, of Philadelphia, announce that they have given up their old quarters in Water street, New York City, and have moved to the Cable Building, 621 Broadway where they have opened new and commodious offices with a corps of assistants in charge of Mr. George Livingston, a gentleman who has long been identified with the building and kindred trades of New York and Brooklyn.

The firm also announce that they have secured larger and better warehouse facilities for the quick filling of orders. Consumers wanting their special brand, the celebrated Genuine Taylor "Old Style", extra heavy coated, and also other brands, manufactured by this firm, can secure prompt attention by communicating with the firm's offices, as above stated.

"And I only married to reform you!" "Yesh, but of coursh a man drinksh more if he marries such a fool!"—*Life.*

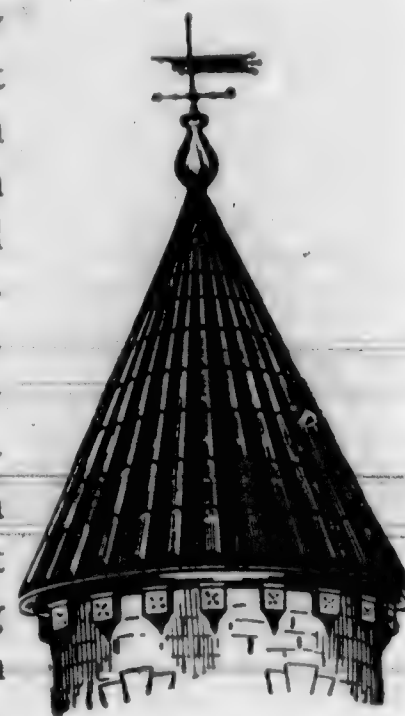
If you want to stop the slamming of that door, all you have to do is to order "The Norton Door Check and Spring" this will render the slamming of doors an impossibility. A simple and durable air cushion check, charging itself when door opens. Not liable to get out of order. Its merits have been proved by being in constant use in this city and elsewhere for the last twelve years. Duplicate parts always on hand. Frank D. Morrell, 593 Mission street near Second street, San Francisco.

There are at the present time few first-class buildings being erected that do not have one or more towers upon them, and no feature of the modern building adds more to its architectural beauty than a graceful and well-proportioned tower. Yet in their construction a difficult problem has invariably arisen as to a suitable covering—especially for conical towers, for which there has been nothing in the market adapted, the only available covering being wood shingles, which split when drawn to the convex form of the tower. Slate will break from the same cause, and metal shingles of forms designed for straight roofing, involves a waste of just fifty per cent of materials in fitting to cones and a greater waste of time in putting on, as after the first course each succeeding one has to be reduced in size and practically made over by the roofer.

Messrs. Merchant & Co., the well-known Philadelphia tin-plate manufacturers and importers, have recently put upon the market a Graduated Tile, which is a valuable addition to their regular "Spanish" Metal Tile, and which is adapted for



covering all conical towers, circular roofs, turrets, domes, etc., being so graduated in size and form as to fit almost any radius. This tile is manufactured in copper, steel or tin, the latter being painted in imitation of the red clay tile. As tower roofs are always the most difficult portions of a building to get at to repair or repaint, they should be covered with that which will never require either. Copper, therefore, is the only material that will meet these conditions, being indestructible, and becoming richer in appearance with age. The Merchant & Co's Metal "Spanish" Tile has been specified by leading architects throughout the United States both for private and public buildings. Numerous buildings at the World's Fair were covered with this tile, prominent among which might be mentioned the Colorado, Minnesota and Missouri State Buildings. This tile is also in use on the new City Hall at Tacoma, Wash., the new Union Depot, Denver, Grand Central Station, Portland, Ore., and the Chamber of Commerce Building, Portland, Oregon; also the new Princeton (N. J.) Inn., a beautiful building, the roof of which is almost entirely covered with copper tile, and presents a very rich appearance. Girard Building, Phila.; San Bernardino Court House, Cal.; Baptist Church at Gouveneur, N. Y.; Congregational Church at Gloversville, N. Y.; Bingham Hall, Canandaigua, N. Y.; Crocker Building, Santa Barbara, Cal.; College Arms Hotel, De Land, Fla.; People's Institute, Chicago, Ill.; Winthrop College, Rock Hill, S. C.; Grace Church, Nashville, Tenn.; Church at Fulton, N. Y.; Central School, Guthrie, O.; Library Building, Lawrence, Kan.; Manhattan School, Manhattan, Kan.; City Hall, Wilke Barre, Pa.; Modesta Bank Bldg., Modesta, Cal.; Swain Residence, W. Philada.; First National Bank, Orlando, Col.; Pens. Hospital for Insane, Phila.—*The Engineering Magazine, May, 1895.*



GRADUATED TILES

BUSINESS MOSAICS.

Austin near Larkin. Eight circular wood tanks; owner, Olympic Salt Water Co.; architect, H. A. Schultze; contractor, Krogh Mfg. Co.; signed, April 18; filed, May 3; cost \$3285.

Bryant near 22d Ave. To build; owner, E. J. Stanley; contractor, A. Olsen; cost \$3500.

Bryant Ave. (Preston Place). To build; owner, T. F. Kiernan; architect, A. J. Barnett; contractors, Quinn & Barrett; signed, April 29; filed, April 30; cost \$1008.

Brannan near 4th. Bricklaying for church; owner, Rev. D. Nugent; architect, J. J. Clark; contractor, James Glynn; signed, April 10; filed, April 12; cost \$5.25 per M.

Brannan near 4th. Artificial stone work, etc.; owner, Rev. D. Nugent; architect, J. J. Clark; contractor, S. Gillett; signed, April 20; filed, April 20; cost \$4000.

Broderick near Ellis. To build; owner, Mrs. Mary Cochrane; contractor, J. J. Manseau; signed, April 21; filed, April 23; cost \$1700.

California near Gough. Cabinet work; owner, J. C. Coleman; architects, Percy & Hamilton; contractor, R. Herring; signed, April 13; filed, April 13; cost \$3750.

California near Baker. To build; owner, Mary A. Townsend; contractor, W. W. Rednall; signed, April 18; filed, April 19; cost \$1800.

Clay near East. Brick building; owner, J. De La Montanya; architect, Percy & Hamilton; contractors, Thomas A. Day & Sons; signed, April 28; filed, April 30; cost \$15,075.

Clay near East. Concrete foundation; owner, J. De La Montanya; architects, Percy & Hamilton; contractors, Cushing-Westmore Co.; signed, April 15; filed, April 15; cost \$3080.

Clay near East. Brick, stone and iron work; owner, J. De La Montanya; architects, Percy & Hamilton; contractors, Peacock & Butcher; signed, April 28; filed, April 30; cost \$10,075.

Clayton and Oak. Two two-story flats; owner, J. F. English; contractor, J. V. Hull; cost \$8000.

Clement near 5th Ave. To build; owner, Irwin Ingermon; contractor, R. Cook; signed, April 12; filed, April 13; cost \$2315.

Clementina near 5th. Additions and alterations; owner, S. Pamery; contractor, J. W. Wyllie; cost \$2500.

Clement near 5th Ave. Three two-story frame dwellings; owner, D. F. McGrath; architect, C. F. Robertson; day's work; cost \$12,000.

Clement near 5th Ave. Plumbing; owner, D. F. McGrath; architect, C. F. Robertson; contractor, G. C. Sweeney; cost \$900.

Davis and Washington. Sewers, plumbing, etc.; owner, Estate of J. Ivanovich; architects, Piasas & Moore; contractor, R. A. Vance; signed, April 26; filed, May 13; cost \$1894.

Devisadero near Page. To build; owner, C. J. Kaighen; architect, B. A. Brown; contractor, Petersen & Person; signed, May 3; filed, May 9; cost \$1532.50.

De Haro near 23d. Cottage; owner and builder, D. Pollack; day's work; cost \$1500.

Dougllass and 24th. To build; owner, James Curtin; architect, A. J. Barnett; contractor, Wm. Plant; signed, April 15; filed, April 22; cost \$2700.

Diamond near 24th. Cottage; owner, James Loftus; architect, Chas. Koenig; contractor, A. Petry; signed, April 12; filed, April 13; cost \$1530.

Eight near Howard. Alteration and additions; owner, W. Ehrenfort; day's work; cost \$1000.

Eighteenth and Hattie. To build; owner, Agnes Petzold; architects, Martens & Coffey; contractor, J. Bucher; signed, April 18; filed, April 19; cost \$3808.

Fair Oaks and 25th. To build; owner, Ed. F. Delger; architects, Kentzer & Barth; contractors, Anderson Bros.; signed, April 25; filed, April 25; cost \$3297.

Fair Oaks near 23d. To build; owner, John Valsangiaromo; architect, A. J. Barnett; contractor, Ed. Mooney; signed, May 10; filed, May 10; cost \$3250.

Fella Alley near Powell. To build; owner, August Schiller; contractor, Herman Hansel; signed, April 22; filed, April 24; cost \$3000.

Folsom and Rich. Additional story; owner, James Macklin; day's work; \$3000.

Folsom street, No. 850. Additions; owner, Mrs. Roach; contractor, F. Schmitz; cost \$300.

Folsom near 5th. Alterations and additions; owner, P. E. Duckein; architect, C. M. Rousseau; contractor, Geo. C. Nail; signed, April 18; filed, April 20; cost \$1880.

Folsom near 24th. Alterations and additions; owner, H. Mangels; day's work; cost \$1000.

Fremont near Frederick. To build; owner, Fred Heine; architect, E. J. Vogel; contractors, Ogle & Smith; signed, April 8; filed, April 11; cost \$3505.

Francisco near Dupont. To build; owner, Mrs. Annie Golelli; architect, C. M. Rousseau; contractor, Jos. Kennedy; signed, April 11; filed, April 12; cost \$2270.

Franklin and California. Painting; owner, Edward Coleman; architect, W. H. Lillie; contractor, J. P. Fraser; signed, April 18; filed, April 19; cost \$86.25.

Fourth Ave. near Clement. To build; owners, J. Levy and Mrs. M. Levy; architect, H. J. Kraetzer; contractor, W. R. Kenny; signed, May 1; filed, May 3; cost \$1200.

Fourth Ave. and Point Lobos Ave. To build; owner, R. R. Hind; contractors, Townley Bros.; cost \$5000.

Fourteenth near Guerrero. To build; owner, J. M. Griffith; contractors, Hyde & Cox; cost \$3500.

Fifth and Brannan. Lumber sheds; owners, Scott & Van Andale Lumber Co.; contractor, H. Munster; cost \$300.

Fulton near Steiner. To build; owner, J. J. Dowling; architects, Havens & Toepke; contractor, J. H. McKay; signed, April 17; filed, April 18; cost \$3585.

Geary near Jones. To build; owner, Thos. Morton; cost \$8000.

Grove near Shrader. To build; owner and builder, W. A. Butler; cost \$4000.

- Guerrero near 22d. To build; owner, Carrie L. Dick; architect, McDougall & Son; contractor, M. M. Cowie; signed, April 7; filed, April 18; cost \$4722.
- Guerrero near 22d. Plumbing; owner, Carrie L. Dick; architects, McDougall & Son; contractor, W. F. Wilson; signed, April 17; filed, April 18; cost \$1010.
- Hayes and Devisadero. Additions; owner, Pacific Hebrew Orphan Asylum and Home Society; architects, Wright & Sanders; contractor, Thomas McLachlan; signed, April 23; filed, April 26; cost \$17,900.
- Hayes and Devisadero. Grading, concrete, etc.; owner, Pacific Hebrew Orphan Asylum and Home Society; architect, Wright & Sanders; contractors, Peacock & Butcher; signed, April 23; filed, April 26; cost \$12,500.
- Hayes and Devisadero. Plumbing, etc.; owner, Pacific Hebrew Orphan Asylum and Home Society; architects, Wright & Sanders; contractors, McDavitt & Cleary; signed, April 22; filed, April 26; cost \$3900.
- Hayes near Laguna. To build; owner, John Crowley; architect, T. J. Welsh; contractor, P. Maloney; signed, May 8; filed, May 10; cost \$3900.
- Hyde and Pine. To build; owner, Charles Schlesinger; architect, E. J. Vogel; contractors, McCulloch & Glunz; signed, April 16; filed, April 20; cost \$8087.
- Hyde near Union. Alterations and additions; owner, W. Simon; cost \$1000.
- Hampshire near Solano. To build; owner, John Francis; contractor, Henry Plant; signed, April 22; filed, April 27; cost \$1080.
- Haight and Baker. To build; owner, John C. Spencer; architect, F. P. Rabin; contractor, Wm. Tegeler; signed, April 20; filed, May 6; cost \$9815.
- Howard near 22d. Carpenter work; owner, Henry Smith; architect, C. F. Robertson; contractor, C. Larson; signed, April 24; filed, May 9; cost \$4000.
- Jackson near Walnut. To build; owner, Henry H. Bull; architect, R. H. White; contractor, John Furness; signed, April 22; filed, April 24; cost \$5500.
- Jackson near Scott. Carpenter work; owner, Augusta K. Gibbs; architect, Willis Polk; contractors, Knowles & Elam; signed, May 1; filed, May 7; cost \$10,200.
- Jackson near Scott. Painting, etc.; owner, Augusta K. Gibbs; architect, Willis Polk; contractor, John H. Keffe; signed, May 2; filed, May 7; cost \$1750.
- Jackson near Scott. Plumbing mill work; owner, Augusta K. Gibbs; architect, Willis Polk; contractors, Knowles & Elam; signed, May 1; filed, May 9; cost \$1750.
- Jackson near Scott. Stone work; owner, Augustus K. Gibbs; architect, Willis Polk; contractor, John D. McGilvray; signed, May 1; filed, May 9; cost \$1300.
- Jackson near Scott. Stable; owner, Augusta K. Gibbs; architect, Willis Polk; contractors, Knowles & Elam; signed, May 2; filed, May 9; cost \$9118.
- Kearny and Post. Iron, steel work, etc.; owner, James Stanton; architect, J. E. Kraft; contractors, P. H. Jackson & Co.; signed, May 2; filed, May 3; cost \$2013.
- King near 4th. To build; owner, Buffalo Brewing Co.; contractor, J. Bucher; cost \$5000.
- Laguna near Oak. Alterations; owner, Mrs. McBride; contractors, Searle & Co.; cost \$1000.
- Laurel near Webster. Brick and cement work; owner, Henry Hock; contractor, Weinhold & Franz; signed, May 5; filed, May 9; cost \$2130.
- Lyon near Haight. To build; owner, Francis Ziberbier; architect, J. F. Kenna; contractor, H. P. Connelly; signed, April 13; filed, May 2; cost \$4475.
- Market near Sixth. Inside finish of billiard room in Spreckles building; owner, C. A. Zinkand; architect, Emil John; contractors, Bader & Fink; signed, April 14; filed, April 22; cost \$1725.
- Mason near Eddy. Alterations and additions; owner, S. Klavemeyer; contractors, Williams & Woods; cost \$1000.
- McAllister near Polk. Raising old building, etc.; owner, T. M. Quackenbush; day's work; cost \$2500.
- McAllister near Hyde. Grading work; owner, California Bible Society; architect, McDougall & Son; contractor, A. E. Buckman; signed, May 8; filed, May 8; cost \$1080.
- Mission street No. 737. Alterations; owner, W. C. Shields; contractor, W. Little; cost \$3000.
- Minnesota near Sierra. Alterations to school house; owner, City of San Francisco; architect, Thomas J. Welsh; contractor, Alex. L. Campbell; signed, March 26; filed, March 28; cost \$3587.
- Minnesota near Sierra. Painting school house; owner, City of San Francisco; architect, Thomas J. Welsh; contractor, L. J. Dwyer; signed, March 26; filed, March 28; cost \$1770.
- Pacific Ave. near Octavia. Carpenter work; owner, Mrs. Elizabeth Blackwood; architects, McDougall & Son; contractors, Peterson & Olsen; signed, May 6; filed, May 9; cost \$6750.
- Pacific Ave. near Octavia. Excavation, brick work, etc.; owner, Mrs. Elizabeth Blackwood; architects, McDougall & Son; contractors, Fennell & Son; signed, May 6; filed, May 6; cost \$1114.
- Pacific Ave. near Octavia. Plumbing, etc.; owner, Mrs. Elizabeth Blackwood; architects, McDougall & Son; contractor, J. E. Britt; signed, May 6; filed, May 6; cost \$1065.
- Point Lobos Ave. and Fifth Ave. Stone sidewalks, etc.; owner, Society Franciscana, etc.; architect, E. Depierre; contractors, Gray Bros.; signed, May 9; filed, May 10; cost \$1150.
- Point Lobos Road near Pacific Ocean. To build; owner, Adolph Sutor; architect, Colley & Lemmer; contractors, Campbell & Pettus; signed, April 10; filed, April 13; cost \$35,445.
- Powell street, Nos. 13-15. Alterations and additions; owners, Chas. A. and Silas Green; architects, Havens & Toepke; contractor, Geo. H. Walker; signed, April 11; filed, April 12; cost \$6000.
- Presidio. Brick building for barracks; owner, U. S.; contractor, F. L. Hansen; cost \$10,000.
- Sacramento near Maple. Brick building; owner, T. T. Williams; architect, A. C. Schweinfurth; contractor, W. A. Butler; signed, April 12; filed, April 17; cost \$17,000.
- Sacramento near Maple. Plumbing; owner, T. T. Williams; architect, A. C. Schweinfurth; contractor, W. F. Wilson; signed, April 12; filed, April 17; cost \$1600.
- Sacramento near Maple. Electric and gas fixtures; owner, T. T. Williams; architect, A. C. Schweinfurth; contractor, S. F. Novelty and Plating works; signed, April 12; filed, April 17; cost \$250.
- Sacramento near Maple. Elevator work; owner, T. T. Williams; architect, A. C. Schweinfurth; contractor, John Hammond & Co.; signed, April 12; filed, April 17; cost \$800.
- Sacramento near Maple. Electric light wiring; contractors, Will & Fink Co.; signed, April 12; filed, April 18; cost \$270.
- Sacramento near Maple. Heating and ventilation, etc.; owner, T. T. Williams; architect, A. C. Schweinfurth; contractors, W. W. Montague & Co.; signed, April 12; filed, April 17; cost \$2000.
- Sacramento and Pierce. Alterations and additions; owner, Mrs. Minnie H. Alderson; architect, F. B. Wood; contractor, R. Currie; signed, April 23; filed, April 27; cost \$3585.
- San Jose Ave. near 25th. To build; owner, Thos. C. Van Bibber; architect, W. H. Wharf; contractor, John A. McDonald; signed, April 12; filed, April 18; cost \$4272.
- San Jose Ave. near 25th. Plumbing; owner, T. C. Van Bibber; architect, W. H. Wharf; contractors, Levy & Parker; cost \$620.
- Sanchez and 14th. To build; owner, Fred Hufschmidt; architect, E. J. Vogel; contractor, J. W. Coburn; signed, April 13; filed, April 13; cost \$3296.
- Shotwell near 24th. To build; owner, Mrs. Ward; contractor, W. A. Lang; cost \$9000.
- Sixth and Stevenson. Excavations, concrete, cement, brick, etc., for four-story brick; owner, M. Schwerdt; architects, Laist & Schwerdt; contractor, Adam Beck; signed, April 18; filed, May 4; cost \$12,575.
- Sixth and Stevenson. Carpenter work; owner, M. Schwerdt; architects, Laist & Schwerdt; contractor, S. H. K. nt; signed, April 18; filed, May 4; cost \$3737.25.
- Sixth and Stevenson. Terra cotta work; owner, M. Schwerdt; architects, Laist & Schwerdt; contractors, A. Steiger Sons; signed, April 20; filed, May 4; cost \$2785.
- Sixth and Stevenson. Plumbing, etc.; owner, M. Schwerdt; architects, Laist & Schwerdt; contractors, Shephard Bros.; signed, April 23; filed, May 4; cost \$1901.
- Seventh near Folsom. Alterations and additions; owner and builder, C. Mason; cost \$4000.
- Steiner near O'Farrell. Alterations and additions; owner, Mrs. Schilling; contractors, Patterson & Person; cost \$1500.
- Steiner near Filbert. To build; owner, Augustus and Eliza La Croix; contractor, J. J. Wils n; signed, April 15; filed, April 16; cost \$1325.
- Second Ave. near California. Six two-story frame buildings; owner, Stewart Meuzies; architect, J. C. Pelton; contractors, Campbell & Pettus; signed, May 8; filed, May 9; cost \$10,238.
- Sixteenth near Valencia. To build; owners, R. J. Taussig and Adolph Eisenback; architects, Salfeld & Kohlberg; contractor, L. B. Schmid; signed, May 2; filed, May 10; cost \$1850.
- Sixteenth near Valencia. Plumbing and gas-fitting; owners, R. J. Taussig and Adolph Eisenback; architects, Salfeld & Kohlberg; contractors, Clark & England; signed, May 4; filed, May 10; cost \$1150.
- Twenty-second near Noe. To build; owner, L. Schmetzler; contractor, H. R. Schmuckert; signed, April 20; filed, May 4; cost \$3220.
- Twenty-fourth near Sanchez. To build; owner, Moses Mossford; architect, R. Trost; contractor, John Hatfield; signed, May 6; filed, May 6; cost \$1475.
- Twelfth Ave. near Clement. To build; owner, Geo. C. Harrison; contractor, Hans Peterson; signed, April 24; filed, April 28; cost \$1775.
- Twenty-sixth and Church. Cottage; owner, John Todt; architect, W. Schrof; contractor, H. Behrens; cost \$2745.
- Twenty-sixth near Howard. To build; owner, B. Struven; architect, Emil John; contractor, F. A. Hellmuth; signed, April 27; filed, May 4; cost \$3526.
- Twenty-ninth near Sanchez. Cottage; owner, W. F. J. Dale; contractor, H. R. Schmuckert; signed, April 17; filed, April 17; cost \$1575.
- Union near Fillmore. Two-story two tenement buildings; owners, Dr. John and Lizzie J. Hemphill; architects, McDougall & Son; contractor, J. H. McKay; signed, April 18; filed, April 18; cost \$5700.
- Union and Fillmore. Plumbing, gas-fitting, etc.; owners, Dr. John and Lizzie Hemphill; architects, McDougall & Son; contractor, H. Williamson; signed, April 18; filed, April 18; cost \$1280.
- Union near Larkin. Additions and alterations; owner, Thomas Scott; architect, W. Mooser, Jr.; contractor, Dwyer; cost \$1500.
- Union near Larkin. To build; owner, J. W. Lomerino; day's work; cost \$5000.
- Vallejo near Van Ness. To build except plumbing; owner, Frank Otis; architect, Seth Babson; contractors, Hickox & Tate; signed, April 11; filed, April 11; cost \$2695.
- Valencia and 15th. Three-story brick; owner, Rose A. Pickering; architects, Havens & Toepke; contractors, Ackerson & Paterson; signed, April 18; filed, April 22; cost \$1943.
- Valencia and 15th. Plumbing; owner, Rose A. Pickering; architects, Havens & Toepke; contractor, H. Williamson; signed, April 17; filed, April 22; cost \$1754.
- Vermont and 24th. Alterations; owner, A. Schuman; contractor, Gus. Williams; cost \$1600.
- Washington near Laguna. To build; owner, J. D. Tallant; architect, W. H. Little; contractor, J. G. Adams; signed, April 27; filed, April 28; cost \$4100.
- Washington near Devisadero. Two two-story frames; owner, Geo. W. Lippman; architect, J. W. Littlefield; contractor, O. E. White; signed, May 2; filed, May 3; cost \$3807.

The California Architect and Building News.

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OFFICE, 408 CALIFORNIA STREET,

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

VOLUME XVI.

JUNE 20th, 1895.

NUMBER 6.

A MONTHLY JOURNAL DEVOTED TO THE ARCHITECTURAL INTERESTS OF THE PACIFIC COAST.

Published on or about the 20th of each month by The California Architectural Publishing Company. The Stockholders being Architects and others interested in the profession.

SUBSCRIPTION TO THE JOURNAL, \$3.00 PER YEAR IN ADVANCE.

ESTABLISHED 1879.

INCORPORATED 1880.

NOW IN THE SIXTEENTH YEAR.

W. J. CUTHBERTSON, President.

OLIVER EVERETT, Secretary.

Remittances should be in the form of postal orders, payable to THE CALIFORNIA ARCHITECTURAL PUBLISHING COMPANY, and all communications addressed to the office of the Company, 408 California Street, San Francisco, Cal.

ADVERTISING RATES:

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THE general rebellion now going on in the United States against bad management of our municipal governments makes an account of what can be done by a practical economical people *apropos*, such an account is concluded in this number.

In the case of the Civic management of Glasgow we have the most practical application so far made of Socialistic principles to the government of a big city. Glasgow is a city of about 750,000 inhabitants the most populous city in Great Britain next to London, and is therefore the best exhibition of an advanced municipal government that we have on a large scale. Many valuable lessons may be learned from this example.

The care taken to prevent monopolies from getting pos-

session of the peoples' property, is one. In this case the City of Glasgow had taken the precaution to simply lease the roadbed to the Street Car Company, thus keeping control of the streets, so that when the time mentioned in the lease twenty-three years, had expired and the Company refused to accede to reasonable terms for a re-lease, the City was able to resume control of the roadbed and rails and all it had to do was to supply cars and power, which was successfully done. In the United States the people have been far more liberal in giving away and have generally given franchises for fifty years for exclusive use of the streets, thus preventing themselves during their own generation from ever again getting control of these streets except by repudiation or by running elevated electric cars on tracks over the private company's tracks and thus by

competition with them bring them to sell back their franchises to the people.

In the purchase of the Gas and Lighting plants a practical way to do so is indicated by the article—although no doubt there are still better and more economical ways of procedure: the results however show that even by the system of Bonding as carried out by Glasgow, success has been attained; and the city's finances: to improve public health, both physical and moral; and to give brightness and the possibility of happiness to civic life.

Beyond that, the Glasgow Corporation hold it their duty to undertake the supply of these necessities of life—light, fresh air and pure water—which private enterprise cannot generally be trusted to provide.

The Corporation recognise three duties as being laid upon them: to fulfil their trust by economical administration of the city's finances; to improve public health, both physical and moral; and to give brightness and the possibility of happiness to civic life. Beyond that, the Glasgow Corporation hold it their duty to undertake the supply of these necessities of life—light, fresh air and pure water—which private enterprise cannot generally be trusted to provide.

The experience of most of American Cities go to verify the last sentence.

It has in short been conclusively proved that municipal management of such a business as the supply of water is compatible with a direct saving of money to the consumer and a great improvement in the supply.

The Corporation also provide lectures upon art and kindred subjects in the museum and galleries, and give a good concert every Saturday during the winter in the City Hall, at prices of 6 cts. and 2 cts.; and they make it pay. They are now building a People's Palace in the East end. Their theory is that the way to stop drunkenness is to compete in attractiveness with saloons; and, whether it be true or not, they certainly do their best to carry it out.

It is interesting to see how a Corporation that has done such good work in such a short time is organized. We find the whole business done by Committees of the Council, and the whole power is in the hands of the Council—who are responsible for all that goes on—this appears to us as it should be, have a proper representative Council elected by proportional system of voting, and make them responsible for all the business of the city, and have no outside commissions or appointed independent bodies—in short a public corporation modeled on the same plan that has made private corporations so successful.

Thus we find the cleansing of the streets is under the direct control of the Health Committee, and we find it efficiently done. The same committee has charge of sewage farms owned by the corporation which indicate a promising field for the labor of the unemployed.

The civic feeling that is extant throughout our country at this time is encouraging—and when such feelings as those mentioned in the articles before us, "It is a sacred charge entrusted to us, and we must be neither swayed by party or party feelings, and by looking only to what is highest and best for the general welfare of the trusts committed to us, and how we may advance through our corporate work the prosperity of the City we love so well," shall have become more common than they are now, may we look forward to a genial revolution of city affairs tending to the general prosperity and well being of the citizens.

A SINGLE year of judicious advertising is often equal to a lifetime of hard work in the building of a business.

GLASGOW—A MODEL MUNICIPALITY.

[CONTINUED FROM MAY NUMBER.]



It is worth pointing out that the late Tramway Company only paid a net rent of about £5,000 a year to the Corporation for the use of the streets, so that there is a direct gain in money as well as in efficiency. As an indication of the boon conferred by the introduction of halfpenny fares, I have been allowed to see a table of the average number of travelers in a typical week at the various rates. From this it appears that, in round numbers, 300,000 passengers paid 1d., 600,000 paid 1d., 95,000 paid 1½d., and only 20,000 paid the maximum fare of 2d.

It may be supposed that the next step will be to abolish all fares above the penny, a plan which will simplify book-keeping, and leave the conductor much more leisure to attend to his passengers than he has at present. It seems to an outsider that the sensible plan would be for the Company to use its omnibuses as friendly feeders to the cars in the outlying districts, instead of running them as rivals on parallel lines, at present. In that case, this step might follow very shortly.

The capital of the Tramway Department is provided for in the usual way, by a sinking fund which, it is calculated, will pay off the debt in thirty-one years. Altogether, I think that this history of the Glasgow tramways may be strongly recommended to the notice of all Town and County Councils whom it may concern.

One may pass next from the locomotive to the stationary, from tramways to dwellings and lodging-houses. And one must admit that a very interesting part of the work of the Glasgow Corporation is that carried out under the name of the City Improvement Trust. This Trust was established in 1866, when the problems of "over-crowding" were clamant for treatment. Its object was "to let air, light, and, if possible, a little sunshine into the dismal closes and courts of the city, where not fewer than seventy-five thousand human beings were crowded together amid surroundings that had become moral and physical 'plague-spots,' a danger and disgrace to civilisation." During the twenty-eight years of its existence the Trust has spent nearly two millions sterling in the purchase of insanitary property and in building. At first it was thought that the citizens themselves would step in and build improved dwelling-houses upon ground cleared by the Trust. That hope was not fulfilled. Those who built went in for a very different style of edifice. In 1870 the Trust itself undertook the building of a small number of tenements of one and two roomed workmen's dwellings, at rents which ranged from £5 14s. to £9 15s. per annum. Further, they built a model lodging-house to provide for some of the lodgers turned out of the vanished slums. Each inmate of this lodging-house was provided with a separate cubicle and a good bed. Dining and sitting halls, with a kitchen and a shop for the use of the men, were placed on the ground floor. The price of a night's lodging was 3½d. or 4½d. The two hundred and ninety beds were so regularly in demand that the Trust went on to build seven such lodging-houses in all, six for men and one for women. The return for the ten years 1881-1891 was at the rate of nearly 5 per cent per annum upon the total outlay. As the Corporation were meantime borrowing

money at 3½ per cent or less, this was clearly a successful experiment in municipal building. But they hold here, as elsewhere, that their business is rather to stimulate private enterprise than to supersede it. One result of the establishment of the model lodging-houses is that the old style of cheap and nasty lodgings is practically extinct in Glasgow. Private enterprise has gone to work on Corporation lines, and the standard of comfort has been raised, by the simple operation of economic law, to that set by the Corporation. It should be added that the committee which manages the lodging-houses has for two years provided a free entertainment every Saturday night in each of them. These entertainments are extremely popular, and help to keep the lodgers out of the public houses.

The Corporation are at present engaged in the building of a Family Home, which is to do for widows and widowers with children what the lodging-houses have done for single men, in the way of raising the standard of comfort and the possibilities of life. In this building, which will provide one hundred and seventy-six dormitories, it is proposed to charge 8d. a night for a room large enough for a man or woman with not more than three children. The children will be fed and taken entirely in charge during the day, as it is expected, for 1s. 6d. a head per week. This, I believe, is an absolutely new experiment for a British municipality to try. If it pays its way, the example will be fruitful in advantage to a particularly unlucky class of the population.

The provision of workmen's dwellings has hitherto not been attempted on a large scale by the Trust. It has, however, built a few tenements; and is now building new ones to supply accommodations for about three hundred families, at rents from £7 5s. to £11 5s. But all this only provides for the wants of the better class of artisans, who can pay a comparatively high rent. Now plans have been approved for houses of one and two rooms, which conform to sanitary requirements, and can be built and let with profit at a rent of £4 10s. to £5 a year for one room, £7 10s. to £8 for two. When the Corporation working at the city's risk, have shown the possibility of making such a building pay, the further erection of similar tenements will be left to private enterprise, as in the case of lodging-houses. A very important class, that of labourers earning less than 20s. a week, will thus at last be provided with the healthy and cheap houses that all practical philanthropists have so long desiderated.

But a work man's leisure is not to be wholly spent in even the most healthy of homes. He and his family need recreation. The Glasgow Corporation have therefore always taken a keen interest in the brightening of civic life. Stung in "the power of multiplied penny," they have endowed their city with museums, half-a-dozen parks, and a really good art gallery. It is significant of their attitude that one of the reasons put forward for the taking over of the tramways, was that additional facilities for getting out to the parks might be put in the way of the poorest citizens. In the same way, I learn that a weir is to be built across the Clyde for the double purpose of preventing the ascent of sewage from the lower reaches and of deepening the river so as to allow of boating above the weir. The Corporation also provide lectures upon art and kindred subjects in the museum and galleries, and give a good concert every Saturday during the winter in the City Hall, at prices of 3d. and 1d.; and they make it pay. They are now building a People's Palace in the east end. Their theory is that the way to stop drunkenness is to compete in attractiveness with the public-house; and whether it be true or not,

they certainly do their best to carry it out. More important still, perhaps, is the fact that they are providing playgrounds for children in the congested parts of the city, where gymnastic apparatus and games of all kinds are at the disposal of every child in the neighbourhood. Without doubt all this provision of means for recreation makes the health of the citizens. Let us see what else is done to that end.

The sanitary system of Glasgow is as justly famous as the name of Dr. J. B. Russell, the veteran Medical Officer, under whose direction it has all practically grown up. Sanitation, it has been said, generally has its root in selfishness. Thus the origin of the Glasgow Sanitary Department in 1863 can be traced to the fear felt by the epidemics of typhus and cholera that ravaged the city from 1848 onwards. The organization which now wages the continual battle against disease is at once simple and efficient, as the deputations that continually come from other towns to investigate it know.

The Medical Officer and his lieutenant, the Sanitary Inspector, are the heads of a little army of inspectors who are always acting as spies in the enemy's country. First come the epidemic inspectors, whose task has been a comparatively light one since the Notification Act was put in force. Every person attacked by infectious disease is treated, at least in theory, as a danger to the community. He is taken off compulsorily to the Corporation hospital, unless he can show that he will be properly isolated at home. There was a time when the sanitary officials were looked upon with doubt, and it was often necessary to get a warrant to remove a patient from the poorer districts. It is still so in some towns where the plan of using the police as sanitary inspectors is adopted. Dr. Russell has steadily set his face against this practice, and the result of his wise rule is that the people now have absolute confidence in "the sanitary men," who are allowed to go freely where neither police nor even missionaries may penetrate. Further, the community have recognised that if they insist on taking a man to a hospital for their own sake rather than for his, it is only fair that his stay there should be made as enjoyable as possible. The consequence is that the average Glasgow labourer now regards hospitals in much the same light as Maggy in *Little Dorrit*, who was accustomed to say, "Such beds there is there! such lemonades! such oranges! such d'licious broth and wine! such chicking! Oh, AIN'T it a delightful place to go and stop at!"

A second staff of inspectors are engaged in detecting nuisances. A third staff, again, look out for cases of overcrowding. Any house not exceeding 2,000 cubic feet in total capacity and suspected of offending in this respect may be "ticketed," as the phrase is; that is, marked outside with the maximum number of persons that may be safely allowed to sleep in it. The inspectors have authority to enter any ticketed house at any time, and so check the overcrowding which is fruitful in disease among the very poor. In very bad cases of insanitary conditions a house can be closed although here as in regard to epidemics, the motto of the department is "Prevention is better than cure."

The supervision of workshops, dairies, etc., and the administration of the Shop Hours Act are also in the hands of the Sanitary Department. One result of this is that there is no dairy in the city in communication with a sleeping or dwelling-room.

The Department employs six female inspectors, whose

duty is to act as sanitary missionaries. They go about widely among the poorer classes, and hold informal talks on sanitary questions with the women of each neighbourhood. These ladies can gain confidence and advice on delicate matters in which "man, proud man," would find himself quite powerless.

The cleansing of the two hundred miles or so of Glasgow streets has also been placed under the control of the Health Committee, since it was found that cleansing and the prevention of cholera go hand in hand. Much time and friction are thus saved, and the work is efficiently done at a moderate cost. The business of sewage purification is also attached to the Sanitary Department. For many years the four condition of "that navigable river, the Clyde" (as one of their own poets has said), has been a disgrace to Glasgow. Works have recently been brought into operation for dealing with one-fifth of the total sewage of the city. At present their effluent into the Clyde is as clear as Loch Katrine water itself, and has no smell. The process will speedily be extended to the rest of the sewage, and the day may not be far distant when salmon will again be caught at Glasgow Bridge. The solid product of the sewage is in part sold to farmers and in part used on the Corporation's own farms. One farm, which was originally leased as moss-land worth 1s. per annum per acre, is now valued at 30s. per annum. This indicates a promising field for the labour of the "unemployed," for whom the Corporation have been forced to find work in more than one of the severe winters of recent years.

No account of the Sanitary Department of Glasgow would be complete which did not allude to the public baths and wash-houses, though these are nominally under different control. Glasgow believes in soap and water. At present there are five public baths and wash-houses in her thickly populated districts. It is felt that this number is inadequate. Experience shows that the average housewife, though she is glad to take advantage of a wash-house, will not carry her dirty clothes more than half-a-mile. Thus the five wash-houses now existing are used by only about 3,000 women in a year, each of whom goes once a week, and can do her week's washing for 5d. But there is need of many more wash-houses, and it is hoped that in time there will be one at each corner of every square mile in the city, so that few women will need to go more than half-a-mile to their week's washing. The baths and wash houses have not as yet paid their way. There is a small annual deficit to be met by assessments. It is worthy of note that the Corporation have opened the baths free at certain hours to children attending the board schools of the city. The teaching of swimming has thus been greatly encouraged.

But what one may here ask, does Glasgow pay for all these good things? It is obviously impossible to go into matters of finance, except in the most general manner. The first question is naturally that of rating. The municipal rates, covering all the departments that have been mentioned, and much more that must be taken for granted, are given, as they were in 1874-75 and as they are in the present year, in the following table:—

Year	Rate per £ on rental of £10 and upwards.	Rate per £ on rental under £10.
1874-75	3s. 6d.	2s. 3d.
1894-95	2s. 8d.	2s. 1s. 3d.

(A rate of a penny in the pound now produces about £15,000.)

In the same period the price of gas has been lowered from 5s. 3½d. per thousand cubic feet to 2s. 6d. These figures show that in spite of the increase of the population and the

doubling of the area of the City of Glasgow between 1874 and to-day, the rates have decreased all around, whilst the service is substantially improved.

A typical instance of the financial methods which have allowed this to be the case is to be found in the erection of the present municipal buildings. Glasgow's stately and even magnificent *Hotel de Ville* cost something over half a million sterling. A penny in the pound had been added to the assessments in 1868 to pay for the old City Chambers. This was not thereafter taken off. It is sufficient, with the rent contributed by the departments, equal to about ½d. in the pound on the rates, to pay the interest on the cost of the new buildings, their maintenance, and the Sinking Fund. This will pay off the entire debt of over half a million in fifty-six years, when the buildings will be the unencumbered property of the city.

If I were asked, indeed, to state the distinctive feature of Glasgow finance, I should suggest the Sinking Fund. That useful invention is now applied to every enterprise of the Second City. On examining the municipal accounts, one finds that all serious debts are on the way to be cleared off by the automatic operation of this device. Thus the Loan Debt of the Police Commission, amounting to nearly £1,300,000, will be paid off in less than fifty years, four-fifths of it being paid within twenty years. The water and gas debts will be paid, the one in sixty-seven years, the other in forty, without any new call upon the ratepayer. The debt on the parks and galleries will be paid off in forty years, and that on the tramways in thirty-one years.

The present financial position of Glasgow seems, to an outsider, extremely satisfactory. Roughly, one may estimate that her liabilities are eight millions sterling and her assets ten and a half millions, with a clear balance of two and a half millions sterling on the right side of the account. It is clear that, with all her Sinking Funds at work, Glasgow is on the high road to riches beyond the dreams of even municipal avarice. Whatever experiments in municipal collectivism her Council may desire to undertake in the future are at least not likely to be hampered for want of funds, or to fail through lack of business capacity.

Before I finish this sketch of some features of municipal Glasgow, I should like to draw attention to one subject of special interest for Londoners at present, upon which Glasgow may throw some light. It is generally felt by the citizens, as well as the Corporation, that the City of Glasgow, covering as it does, since the extension of the boundary in 1891, almost 12,000 acres, with a population of upwards of 700,000, is tending to outgrow its unity. General municipal *esprit de corps* needs to be fostered in the several districts now knit into one city. At the same time it is strongly felt that only a central authority can deal effectively with such questions as those of sanitation, sewage, police, fire, and so on. A re-arrangement of the wards of the city will be called for next year, and it is highly probable that some scheme of Divisional Committees will then be adopted, without any weakening of the central authority. By the courtesy of a member of the Corporation I am enabled to give the gist of such a scheme, which he has drawn up for submission to the Council. It seems almost certain that this scheme, or something very similar, will be ultimately adopted. The Unification Commission might do worse than consider carefully its provisions, which begin as follows:—

"The object of any scheme of divisional administration should be: (1) To keep alive municipal interest in all parts

of the city by providing some machinery, other than that of the central body, by which local wants and necessities could be ascertained and supplied; and by which local feeling would find more full and complete expression; (2) To relieve the central administrative machine of certain details by having a first process of selection and preparation of business, which would leave the central body more free to deal with the matured recommendations of the district, and with all questions of principal and general policy.

"Any scheme of divisional administration to be successful must comply with the following conditions:—

"(A) The central control over the various departments must be maintained, so that consistency and uniformity of policy and action may be kept throughout the whole territory.

"(B) Income and expenditure and the employment of officers of every degree in all branches of the service must rest with the central body.

"(C) The representatives composing the divisional bodies must all be members of the Central Council.

"(D) The power to regulate, diminish, or increase the powers and duties of the Divisional Boards from time to time, as experience and utility suggest, must rest entirely with the Central Council."

The scheme then goes on to propose that Glasgow should for this purpose be divided into five sections, "so as to give the nearest effect to natural geographical groups that the limits of the wards will permit." A Divisional Board is to be formed in each section, of the members elected by the wards contained in it, with others if necessary; the Lord Provost, and the Conveners and Sub-Conveners of the Committees of Watching and Lighting, Statute Labour and Health, to be *ex-officio* members of each board. The minutes of each board-meeting are to be communicated to the next meeting of the Central Council, and, if not disapproved thereon become resolutions of the Council. Provision is made for holding at the disposal of each board of the services of officers from the chief administrative departments, especially acquainted with the territory of the board. The remaining provisions are as follows:—

"8th. The work of the Board would be to receive, consider, and deal with remits from the Central Council, or any of the standing or special committees thereof, to receive and consider complaints or suggestions from the ratepayers in the districts relating to the public service, to inquire into these, and discuss or make recommendations, and to discuss and mature any improvements or changes in the service of the various departments for recommendation to the Central Council through their standing committees; to report on the requirements of the district previous to the preparation of the annual estimates, and to take a special oversight of the repair and upkeep of streets and sewers, the cleansing and lighting of streets, the removal of refuse, the placing of fireplugs, etc., and the inspection of nuisances within their districts.

"9th. For the proper regulation of the business of the Divisional Boards, Standing Orders should be drawn up by the City Council, providing *inter alia* for a direct appeal to the Council, on the request of two-thirds of the members of the Board present at any meeting, against any decision or recommendation of any Central Standing Committee affecting any Divisional Board.

"10th. It is suggested that the business of the Local Boards should be carried on at some conveniently accessible point in each district, and that, to give outward and visible embodiment to local municipal life, there should be established a Municipal Bureau or district Office, where all possible municipal business would be concentrated (such as collection of gas and water accounts, municipal assessments, etc.,) and where information, advice, and assistance could be at once obtained in reference to epidemic disease, hospitals, and the sanitary service generally, cleansing roads, drains and sewers, lighting, fire, police, gas, water, and in-

deed every department of the public service which affects the health, comfort, or convenience of the citizens."

The only comment I shall add is that the combined safety and elasticity of this scheme seem to me to be strongly in contrast to the rigid and risky proposal to which Mr. Chamberlain recently saw fit to give the weight of his great authority.

It is hardly necessary for me to point out, in conclusion, that I have of necessity forborne to deal with much that is important in the municipal life of Glasgow. Upon the work of the police and the fire brigade, the Dean of Guild, who supervises building, the profitable Markets Trust, with its control of the meat market and slaughter-houses, and many other parts of the Corporation's business, I have no space to touch. Otherwise I should like to glance at the principle recognised by the Corporation, to do their own work by direct employment of labour in certain cases, such as in the repair and cleansing of the streets, but to employ contractors in other cases, as in bridge-building and street-making. I should especially like to call attention to the grim irony of circumstance which causes a city, so advanced in other respects, to be about the last in the country to offer its citizens a Free Library, and makes a Council, who play lightly with millions when it is a question of material boons, shrink from asking their constituents for a penny in the pound when it is only books that are needed. Probably they have delayed thus long only in order to acknowledge, by one frailty, that they too are human; but an outsider may assure them that they will provoke no envy of the gods if they can make up their minds to force this crowning benefit upon their citizens.

It is true that the Glasgow Corporation have lately been accused of an over-readiness to "force benefits upon their citizens." But the principal Police Clauses of their Bill now before Parliament, of which facetious members have made their sport, have been the public law of Scotland since 1892, and are now merely being adopted by Glasgow. The facetious gentlemen are, therefore, surely a little late.

But I must turn to consider the lessons that Glasgow has to offer the rest of the country, for I think I have justified my title. That, indeed, is a business that the gentle reader can do best himself, if I have been at all successful in my transcript from life. I wish to offer him only two suggestions.

The first is that Glasgow is an instance of the striking progress which may be achieved in municipal matters by a body of good business men who are more concerned about the welfare of the city than the illustration of a political or social theory. Politics, indeed, are practically unknown at the Glasgow Council Board. Nor is eloquent speech in great demand there. The real work is, all of it, done in committees and small sub-committees, and the discussions at the meetings of council are, I understand, chiefly useful to let outsiders know what is going on. Glasgow, again, is claimed by many as a wonderful example of the success of municipal socialism. That may be so, but the Council certainly had so such idea in their heads when they achieved their successes. The method of the Glasgow Corporation, who have done their work solely on the principle of finding the best thing for the citizens in each matter, may be profitably contrasted with that of bodies which begin by enunciating a political or social theory, and then spend so much energy in arguing over it, that they have none left for applying it. Municipal collectivism may have achieved great things in Glasgow, but her Councillors have been col-

lectivists—as M. Jourdain talked prose—without knowing it, or at least without caring about it:

"Like some tall palm the mystic fabric sprang."

In the second place, it is gratifying to note how completely the Glasgow Corporation has fulfilled the conditions deduced by Mr. Chamberlain from his Birmingham experience.

"The municipality is ever present; it is the active centre of all public life of the town; its members are perpetually striving strenuously to promote the good, the happiness, and welfare of the whole population. The City Council are the directors of a great co-operative undertaking, in which every citizen is a shareholder, and the dividends are payable in the better health, in the increased comfort, in the recreation, and in the happiness of the whole population."

This is surely a higher conception of the duty of a corporation than those have formed who attempt to bolster up a political or social theory by their municipal practice. It agrees with that of the Lord Provost of Glasgow, who says, for himself and those who share his authority:—

"It is a sacred charge entrusted to us, and we must neither be swayed by party nor party feeling, . . . looking only to what is highest and best for the general welfare of the trusts committed to us, and how we may advance through our corporate work the prosperity of the city we love so well."

When that is the temper in which our municipal affairs are administered, there is no need to wonder that Glasgow is a model municipality, and has traveled a measurable distance on the road to become "the ideal city, in which a pleasant and healthy home is within the reach of every citizen."—*Garret Fisher in The Fortnightly Review.*

STEEL BUILDINGS.

THE advantages of this method of construction over any other is well exemplified in the case of the Carter building, says the *Boston Commercial Bulletin*. It is stated with authority that the space saved over the old method is worth in rent about \$12,000 per annum. Where land is very expensive or where lots are small the steel structure is particularly practical as it permits the saving of considerable interior space is always a matter of great importance.

In the modern steel structures masonry counts for very little, as the weight of the building is borne by columns. Such is the importance of the steel work that goes into these buildings that the greatest care is taken in its manufacture. The best architects and knowing builders see that every piece of steel is carefully tested and if not up to the standard it is thrown aside. The method of testing is a most severe one. The experts are hired and controlled generally by the architect at the cost of those who put up the building; the expert is stationed at the mill. Of such a nature is the work that two concerns in Pittsburgh are making a specialty of furnishing experts to supervise it and are doing the principal work of this character in the country.

It is required of these experts that they thoroughly test each piece of iron and steel made in the mill, or in other words, physical tests are made of each melt. The test specimens should fill the following requirements: Ultimate tensile strength, from 60,000 to 68,000 pounds per square inch; elastic limit, minimum, 35,000 pounds per square inch; elongation in 8 inches, minimum, 25 per cent; reduction in area, minimum, 40 per cent. In the bending test it is necessary that the iron or steel bend 180 degrees flat

around a curve whose diameter equals the thickness of the specimens without a sign of a crack on the convex side. These tests alone signify the high standard of the material used, and when one considers how slender the modern steel frames are that hold up our buildings, the reason for this care can be easily understood. An expert also sees to it that properly marked pieces are put into the buildings, and those without proper marks are thrown aside. These experts are paid so much per ton, and make report to architects. Great care is taken that steel does not contain more than 1-10 of one per cent of phosphorus.

In steel frame construction the skeleton of the building is generally erected first, before the masonry is started. Under the old method the iron and masonry were used together in the building of each story. Where bolts were used largely in the last mentioned form, the steel sections are riveted almost wholly in the first. A steel thus riveted can be compared to an inverted bridge, for in fact the modern building is built on the bridge plan, and it is riveted in such a manner as to make it, to all intents and purposes, one piece of steel from top to bottom. Thus any strain which may be put upon the building will be shared by the structure as a whole and not confined to any one spot, as in the ordinary building.



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.

BUSINESS Building for H. J. Meyer, 931 and 933 Market street. Edw. Kollofrath, Architect.

COTTAGE and plans, Newsom Bros., Architects.

BOY'S Dormitory, Nevada State University, Reno. Nevada, Percy & Hamilton, Architects.

Chase (to dentist)—"I won't pay anything extra for gas. Just yank the tooth out even if it does hurt a little." **DENTIST**—"I must say you are very plucky. Just let me see the tooth." **CHASE**—"Oh, I haven't got any toothache; it's Mrs. Chase. She'll be here in a minute."—*Truth.*

Old DE WHISKERS—"I have had my life insured for \$50,000 in your favor. Is there anything else I can do to please you?" **MRS. DE WHISKERS** (his young wife)—"Nothing on earth, dear."—*Leslie's Weekly.*





THE NEVADA STATE UNIVERSITY
BOYS' DORMITORY
RENO, NEVADA
PERCY AND HAMILTON ARCHITECTS SAN FRANCISCO

BRITTON & REY PHOTO LITH.

CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO.

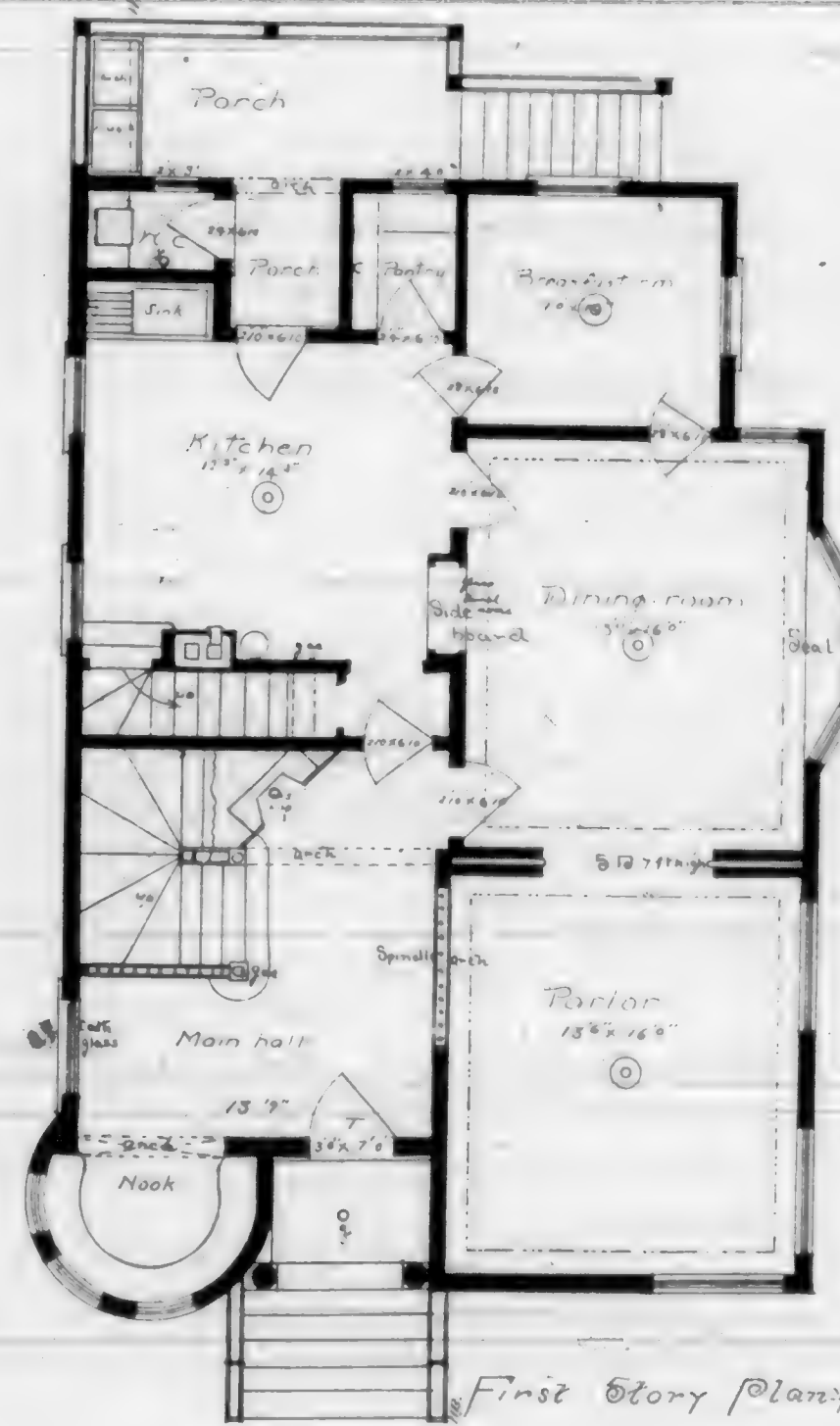
JOHN J. & THOMAS D. NEWSOM
ARCHITECTS.



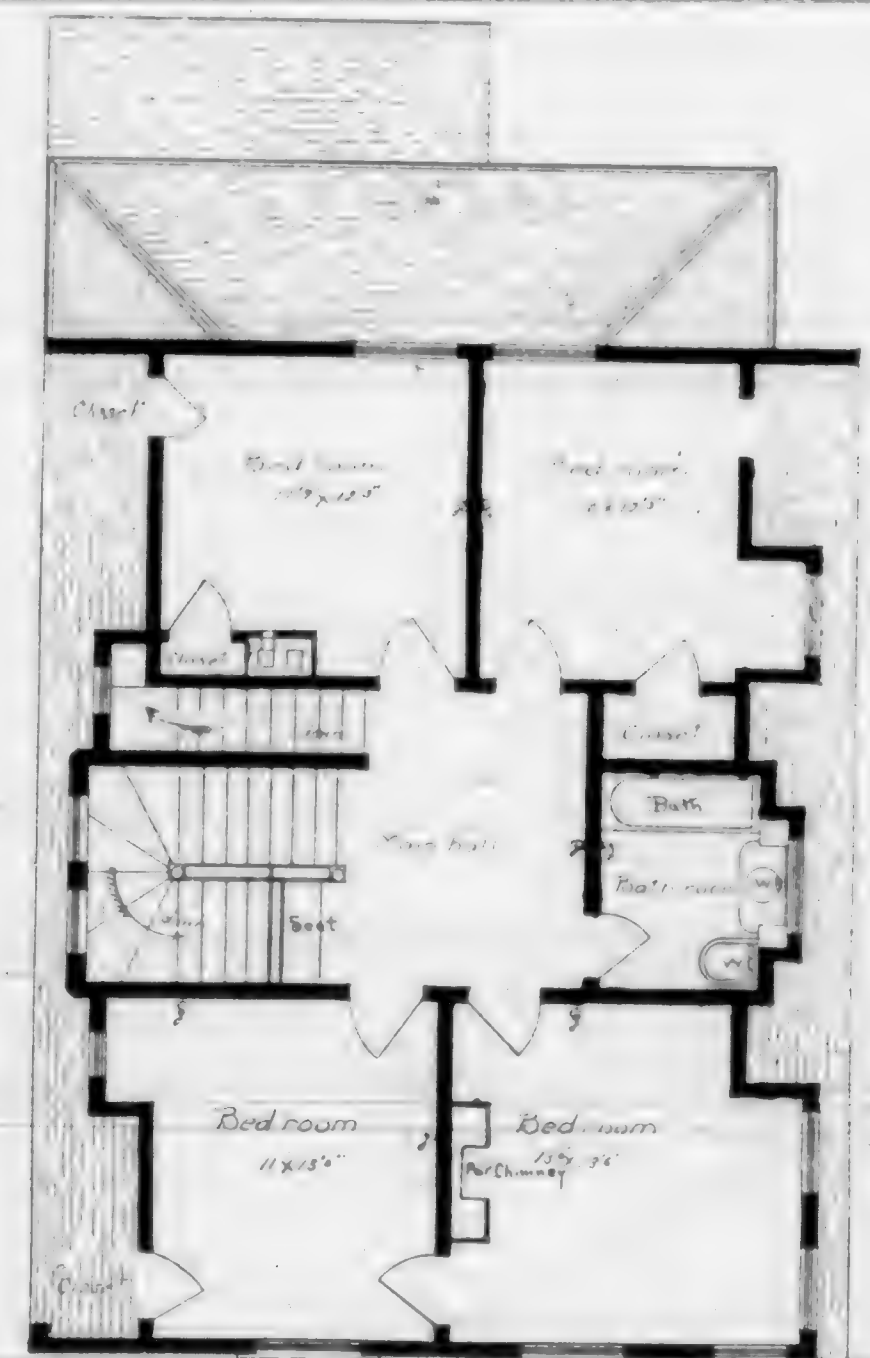
Section

Front Elevation

Scale $\frac{1}{4}$ " = 1 inch



First Story Plan



Second Story Plan
Scale $\frac{1}{4}$ " = 1 inch

CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO.

BRITTON & REY PHOTO LITH.

VOL. XVI No 6 JUNE 1895

BUSINESS BUILDING

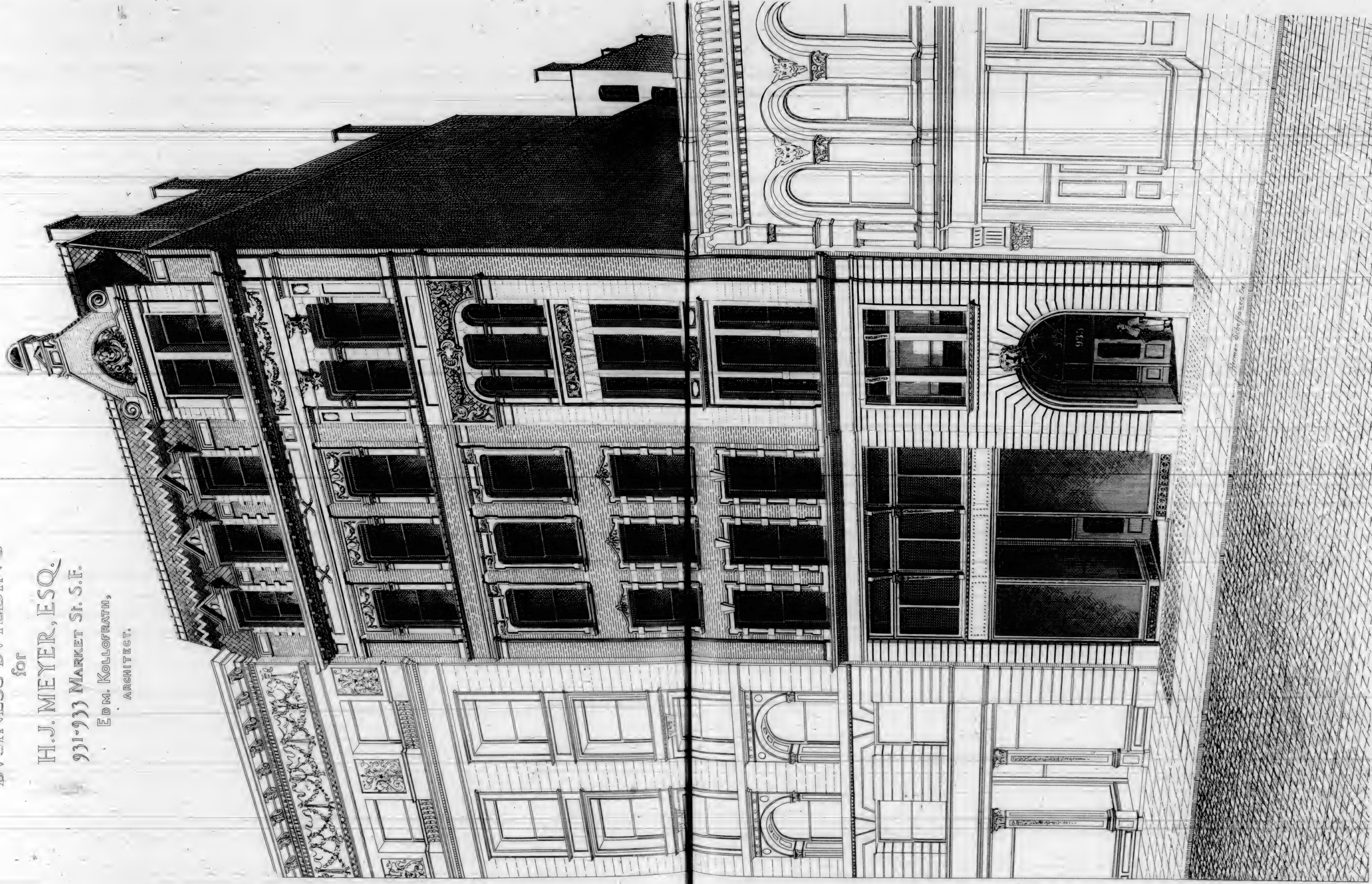
for

H. J. MEYER, ESQ.

931-933 MARKET ST. S. F.

EDM. KOLLOFRATH,

ARCHITECT.



CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO.

BRITTON & REY PHOTO LITH.

VOL. XVII. NO. 6. JUNE 1893.

NOTICE OF MEETINGS.

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

SOUTHERN CALIFORNIA CHAPTER AMERICAN INSTITUTE OF ARCHITECTS, meets first Wednesday of each month at 114 Spring street, Los Angeles, Cal.
 OCTAVIUS MORGAN, Pres. A. M. EDELMAN, Vice-Pres.
 ARTHUR B. BENTON, Sec't. AUGUST WACKERBARTH, Treas.

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

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

BOOKS AND PERIODICALS.

SAN FRANCISCO BAY AND VICINITY—We are indebted to the Union Photo Engraving Company for a handsome map, published by the above company. We understand this map was modeled in clay, and is certainly a very creditable work that should adorn the walls of every business office in the city.

KIDDER'S ARCHITECTS and BUILDERS POCKET BOOK, published by John Wiley Sons, 53 East 10th street, New York, price \$4.00. We know this is considered a valuable book by some one, as it was stolen from our letter box before it reached our desk.

THE FORTNIGHTLY REVIEW for June contains an interesting sketch of "Mr. Chamberlain's Municipal Career." Mr. Chamberlain, at present a member of Parliament from Birmingham, twenty years ago was Mayor of that city, when after much opposition his plan for the requirement of the gas works by the city corporation, as afterwards the water supply of the city, which proved a great benefit; both these projects proving a great success and giving a large revenue to the city, at the same time reducing the cost to the company about one-third in the cost of gas, while double the supply of water was furnished.

THE BROCHURE SERIES OF ARCHITECTURAL ILLUSTRATION. Published by Bates & Guild, 6 Beacon street, Boston, Mass. The Brochure Series in its present form is a continuation of the little occasional circular of the same name already well known to the architects of the country. The favor with which these were reviewed has induced the publishers to establish a regular monthly publication at the low price of fifty cents a year. In regard to the illustrations what the publishers claim is true, viz:

"Photographs of the size here given cost from fifteen to fifty cents each . . . but in the present form they cost but one-half cent each and for all practical purposes are quite as valuable as the originals."

We take pleasure in presenting our readers an illustration from MODERN OPERA HOUSES AND THEATRES, a work about to be published in London by Edwin O. Sachs, Architect F. S. S. and A. E. Woodrow, Architect A. R. I. B. A., Waterloo Place Pall Mall, S. W. Illustrated by a series of 220 plates from drawings prepared for the work. The design below is the entrance to "D'Oyly Cartes Opera House."



ENTRANCE TO D'OYLY CARTES OPERA HOUSE.

POINTS IN THE INSPECTION OF ELECTRIC PLANTS.

IN a recent paper on points in the inspection of electric plants, read before the Fire Underwriters' Association of the Pacific, Mr. G. P. Low made a number of excellent suggestions. One of his most pertinent remarks was the following: The greatest enemy to safety in wiring is moisture, and the only flexible and durable material having high insulating qualities that will withstand moisture is rubber, or the compounds allied to it. These should be used exclusively for the insulation of all inside wiring, despite their inflammability. Wires should never be permitted to touch anything save their insulating supports; hence it follows that insulating tubes or bushings must be used wherever wires pass through walls, floors or partitions of any description. The hazard of wood base cutouts, switches, etc., is so well understood, that there is no occasion for making further effort to show the necessity for invariably ordering their immediate removal.—*Architects' Electrical Bulletin.*

THE DISPOSAL OF DUST.

HITHERTO the disposal of house dust and general refuse has been a matter involving considerable difficulty for municipalities, and always, even under the most favorable circumstances, one of the most costly items presented to the ratepayers in the parish bill. Thanks, however, to the public spirit displayed by the majority of the members of the St. Pancras vestry, says *Lloyd's*, and the skill of their engineer and chief surveyor, Mr. W. Nisbet Blair, the difficulty has been conquered, and this great metropolitan parish is about to show, not only how to get rid of its refuse at the lowest possible cost, but how to make the heretofore despised waste of commercial utility. Two years ago it was seen that the success attending the establishment of the parochial electric lighting works would necessitate an early enlargement of the scheme, and it was then that Mr. Blair proposed to the electrical engineer, Professor Henry Robinson, a plan for burning refuse in special destructors and utilising the heat for the generation of the power required. Together the two gentlemen formulated a complete scheme, and laid it before the vestry, which for a long time refused to be convinced that it was feasible, but at length perceived its advantages, and having adopted it pushed on the work, which is now rapidly approaching completion.

The buildings cover an area of about two and a-half acres, running from Georgiana street to Pratt street at the back of Great College street, and facing the King's road. Their most conspicuous feature is the great chimney built by Messrs. Kelly Bros., of Liverpool, and stated to be one of the most perfect pieces of work in the kingdom. This gigantic shaft, octagonal in shape, and faced with ornamental lines of red-brick Ruabon brick, rises from a bed of concrete eight feet thick, and twelve yards square, to a height of 231 feet, its altitude from the ground level being 207 ft. 6 in. At the base the brickwork has a thickness of five feet, and this is gradually reduced until immediately below the stone cap it is only 14 inches. The cap weighs no less than 32 tons 11 cwt., and the total weight of the whole shaft is 2,680 tons. A lining of fire-brick goes to a height of 78 feet, and between it and the main shaft is a three-inch cavity, to prevent the outer brickwork suffering damage by heat. When plumbed it was found to be less than a quarter of an inch out of the true perpendicular, an accuracy so rare as to be phenomenal. The cost of erection was 3,400/. The rest of the work has also been carried out in the same thorough fashion, and its details are full of novelty and interest. The refuse will be taken in through an entrance in Georgiana street, and there weighed and tipped into enormous tanks on each side of the main shed. To these tanks are attached hoppers, which convey the dust to furnaces underneath specially constructed to Mr. Blair's design, and regarded as the most approved type in existence.

The great feature of the whole scheme is its general automatic power, which enables it to deal with an enormous amount of matter, while necessitating but very little manual labour in proportion. This feature is specially exhibited in the furnaces, which are fitted with most ingenious appliances, the patent of Mr. Healey, an engineer, of 24 Queen Victoria street. The dust falls from the hoppers on to bars, arranged somewhat in the form of an enormous gridiron. Alternate bars move continuously up and down with an eccentric forward motion, carrying the refuse to the centre of the furnace. This motion is obtained by means of a special engine, the boiler of which is heated by the fumes of

the burning dust which thus assists its own destruction. The same boiler also drives the blowing machinery, by which the draught is obtained to ensure combustion, a mortar mill, and a stone-breaking machine. There are eighteen furnaces in all, capable of consuming 1,260 tons of refuse per week, and leaving behind only a certain amount of "clinker," which is withdrawn every six hours, and which, owing to its properties of making an exceptionally tenacious mortar, will fetch by sale something like 1,000/. per annum. In the electric light department, which has been arranged by Prof. Robinson, there are at present three boilers—though provision has been made for six to meet future contingencies—which are heated by the destructors. The fiery gases from the burning refuse pass through a flue—the longest section of which is 60 feet—to the boiler-room, round the outer shell of the boilers, descending again to the main flue, then to the front of the boilers, through a heat economiser, and into the chimney. It is calculated that the destructors will produce 12,000 degrees of heat, giving from three to four hundred horse-power with the three boilers. A novel arrangement of balanced dampers governing the various flues enables the heating fumes from the furnaces to be turned off or on to any portion of the works, or sent direct to the chimney shaft by the mere turn of a lever. Much smoke will also be avoided by combustion chambers above each furnace, which becoming white hot, will destroy all sooty particles in the vapours before they pass into the flues. In case extra pressure should be put upon the lighting department the boilers have been so arranged that they may also be fired by hand or mechanical stokers with coal, so that steam may be quickly raised to meet any emergency. The present plant is designed to serve 10,000 lamps.

"Efficiency with economy" seems to be the motto of the designers of this great enterprise, and on every hand are arrangements for securing it. For instance, water which is supplied by meter to the works might have proved a serious item of expenditure, but is ingeniously prevented from becoming so. The waste steam from the boilers passes through a condenser and then through a water-softening apparatus to a vast tank below, which has a holding capacity of 115,000 gallons. The water at the top of the tank attains to a heat of about 110 degrees, and this is pumped up to a cooling apparatus at the top of the building, whence it returns and re-enters the tank at the bottom, thus being used over and over again.

At present the vestry pays 3s. 6d. per ton for the cartage of its refuse away. On this item of cartage alone there will at once be a saving of a shilling per ton, which, with the revenue derived from the sale of the "clinker" mortar, will show a total saving to the parish of close upon 5,000/. per annum. There will also be a great saving in coal at the Stanhope street Electric station, as the new station will switch on and take the entire dayload by means of the destructors alone. What this means will at once be apparent when it is stated that the Stanhope street plant already returns a profit of six per cent upon the original outlay of 100,000/., while the ratepayers have the advantage of better street lighting, the possession of a valuable asset, and the satisfaction of knowing that they have not had to pay a farthing for it. And better things are in prospect with the inauguration of this new scheme. The possibilities of the use of refuse as fuel are endless, and the initiative may be followed by results as valuable and amazing in the case of "dust" as they have been in that of the once equally-despised coal tar. Nothing can exceed the energy with which the scheme has been forwarded—Mr. Blair and Professor Robinson carefully overseeing the carrying out of the designs for which they are responsible in their several departments with the assistance of an able lieutenant in the person of Mr. G. A. Ellt, the clerk of the works.

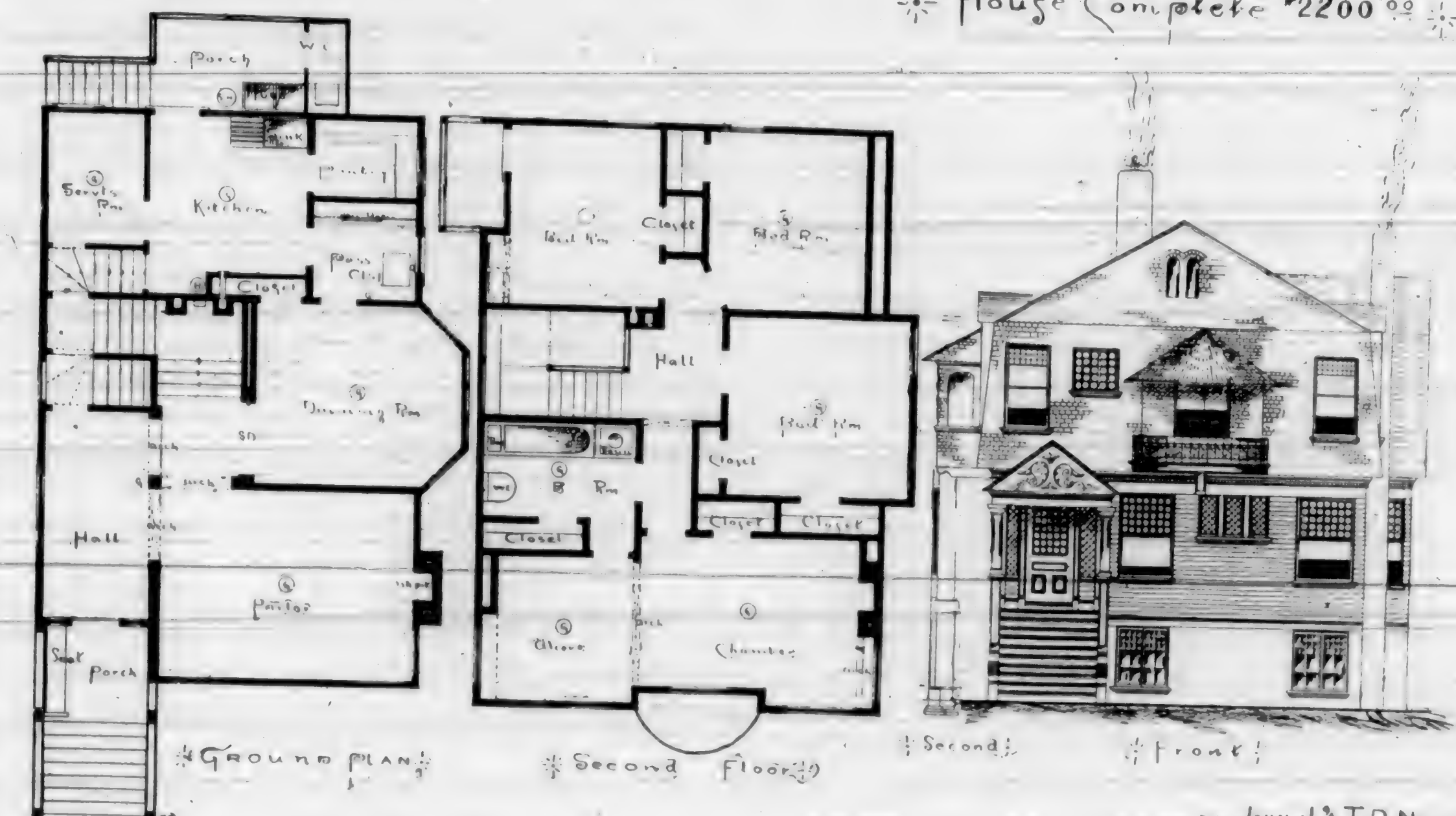
LEGAL DECISIONS.

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.

PAYMENT OF CONTRACTOR BY CHECK.—Where parties upon being sued by a contractor alleged that they had given him a check in full payment of all claims under the contract, and a statement to that effect appeared on the face of the check; but the contractor denied that he had so accepted the check, and testified that the one who gave it to him told him that he would receive a further payment, and that the supervising architect advised its acceptance, saying that they would pay him in full afterwards, and this was corroborated by the architect, the Supreme Court of Washington held that the question of whether the check was given and accepted as full satisfaction was for the jury to determine. *Megrath v. Gilmore*, 39 Pacific Reporter, 131.

contract which is not in writing, the petition to enforce his lien need not set out in detail the material furnished and the work performed. *Texas State Fair Ass'n v. Caruthers*, Court Civ. App. Tex. 29 S. W. Reporter, 48.

ORDER BY CONTRACTOR AND MECHANICS' LIENS.—After a contractor had given a subcontractor an order on the owner, he abandoned the contract, and the owner completed the building under a clause authorizing him to do so in default of the contractor, and to deduct the cost of completion from any moneys due the contractor. The order had been presented prior to the filing of any liens. And the Supreme Court, 1st Department of New York held that such order was an assignment for so much of the balance due the contractor, after deducting for cost of completion, and was entitled to a preference over liens not filed until after its presentation. *Murry v. Micolino*, 31 N. Y. S. Reporter, 1109.



— John J. & T. D. Newson
— Architects.
— 504 Kearny
— S. F. Cal.

EQUITABLE LIEN FOR BUILDING MATERIALS.—A contract for the purchase of materials to be used in the construction of a house, and notes given for the price, reserving title in the seller until payment, who is thus deprived of a lien under the statute, and also cut off from an action at law until the notes are due, creates an equitable lien on the house and lot which may be enforced in a court of equity. *Rose v. Perry*, Supreme Ct. Ala., 16 So. Reporter, 915.

DAMAGES FOR BREACH OF CONTRACT.—Where two parties have made a contract, which one of them has broken, the other must make reasonable exertions to render his injury as light as possible; and he cannot recover from the other damages which might have been avoided, had he performed such duty. *Uhlig v. Barnum*, 61 N. W. Reporter, 749.

STATEMENTS IN MECHANIC'S LIENS.—Where a contractor constructs a building as one job, for an entire price, under a special

ENFORCEMENT OF MECHANICS' LIEN.—Where the purchaser of land on which there is a mechanics' lien agrees to pay it off and save his grantor harmless as to same, the lien may be enforced against the land in the hands of the purchaser, without first exhausting the lienor's remedy against the grantor. *Cullers v. 1st Nat. Bank*, 6t. Civ. App. Tex. 29 S. W. Rep. 72.

PRESUMPTION OF NEGLIGENCE IN ERECTING A BUILDING.—Where a person lawfully upon a sidewalk is injured by material falling from a building in the course of erection, and it appears that the sidewalk was not covered or in any way guarded, it is sufficient to raise a presumption that the builder was negligent. This rule is necessary for the protection of those having occasion to use the sidewalks of public streets. The evidence as to how the accident occurred is most usually within the knowledge of the builder and his employees, and the person injured has no means of proving precisely how or why the accident occurred. The first warning of danger that he has is his injury, and then he has no opportunity to investigate the cause. *John v. Dawson*, Supreme Court, 1st Dept., 32 N. Y. S. Reporter, 59.

BUSINESS MOSAICS.

Open Doors—There are no secrets in making the best goods, is the title of the latest advertisement issued by Messrs. N. & G. Taylor Co., Manufacturers of American Tinplate, Philadelphia. This house has long been noted for its novelties in trade literature, but the present circular is something above the ordinary, and is quite original and striking. It conveys at once its meaning.

The reader is confronted with the massive double doors of a factory above which is the inscription "Open Doors", and underneath the words "There are no secrets in making the best goods." These two doors open at the touch, and bring immediately to view the interior of Messrs. N. & G. Taylor Co.'s tinning-house. This is a re-produced photograph by the half-tone process, and shows in reality the workmen, the tinning stacks, tin racks, dusting boxes, etc. This Tinning House is the largest in the United States, and as the firm states, "with facilities to produce every grade of bright or roofing tin that is made."

Twenty-two tinning stacks are shown that give an output of over 9000 boxes weekly by day work alone, but the most important thing that strikes the eye, is a large hand printed in bright red, pointing to the tinning stacks at the right foreground of the picture to which is inscribed "The Genuine Taylor 'Old Style' brand is made in the stacks shown on the right; notice there is no shafting or machinery, the work being done entirely by hand, the same as in 1830, and here the 'milk in the coconut' appears, and the whole import of the advertisement is quickly apparent.

In these days of mysterious manufacturing of Roofing Tin, N. & G. Taylor Co. boldly step forward and frankly invite inspection of their product. "Our doors are open, there are no secrets in making the best goods." Their celebrated brand, the Genuine Taylor "Old Style" brand of Roofing Tin is made in tinning stacks that show no shafting machinery or rolls. The work is done entirely by hand, the same as in 1830. No acid flux is used to injure the black sheets, pure Palm Oil only being employed. These sheets are allowed to soak, and are literally "boiled in oil" before they receive their metal coatings. Made in this way, without any secrets, and with "Open Doors," Messrs. N. & G. Taylor Co. may well advertise the brand which they originated so many years ago, and which they to-day hold as without a peer above their competitors. Jealousy and competition may go far in these days of close rivalry, but their brand, the Genuine Taylor "Old Style" is to well known and established in the hands of honest roofers to need any further encomium to praise its worth and durability.

The Maid—"There were four flies on the cake you sold us yesterday." CONFECTIONER (to clerk)—"Give the lady four raisins."—*Echo*.

San Francisco Gas Light Company, Gas Stove Department. By referring to page ii of this journal it will be seen by their advertisement that no charge is made for placing their stove, while the prices have been so much reduced for the stoves that there remains no excuse for the householder not to add this useful, and economical cooking arrangement to his outfit. We are aware among many who have not given much attention to the subject, that there is a false idea that gas costs too much when used for cooking

purposes. If a little care is applied in its use, it will be found not only cheaper than the use of coal, but a great saving of time, with a great increase of comfort to the housekeeper. At 226 Post street, San Francisco, you can see the stoves and find out all about their use.

Whizly—"One swallow does not make a summer." **Sizly**—"No, but one grasshopper can make a spring." *Philadelphia Inquirer*.

If you need water only when the wind blows; if you are satisfied to utilize but a small fraction of the water in your well, if you prefer heavy bills for repairs after each storm in winter, by all means use a windmill; but if you want water at any time, and up to the full capacity of your well, put in the Ajax Coal Oil Gas Engine, the latest thing in mechanics, an engine that uses common coal oil for fuel, and is built by the well known firm of Palmer & Rey, San Francisco, Cal.

"Was he very much cast down after he'd spoken to papa? "Yes. Three flights of stairs."—*Punch*.

P. & B. Paper is the only Building Paper manufactured on the Pacific Coast, and that, moreover, it is manufactured exclusively of materials produced on the Coast. Its quality has been so thoroughly demonstrated that it now almost exclusively used on all first-class buildings that are constructed in San Francisco and elsewhere. In price it is no higher than the ordinary grades of eastern Building Papers. We believe preference should be given to it on all occasions where Building Paper is specified, as every dollar spent for it means just so much more money kept in circulation at home. Their place of business is at 116 Battery street, San Francisco.

Did you make a hit with that red tennis blazer of yours down on the farm? "Did I? It struck the bull's eye the first time I wore it."—*Indianapolis Journal*.

If you have to be tempted to take a bath, it is only necessary to look at the picture of a porcelain roll rim bath tub as shown on page v to make the temptation impossible to resist. The J. L. Mott Iron Works manufacture these, also every thing else in the way of perfect plumbing materials if you call upon Mr. M. S. James, their Pacific Coast Representative, room 35 Flood building, San Francisco, you can find out all about it.

As it appears to be fashionable to patronize home manufacture you have an opportunity to keep in fashion by ordering your plumbing from the establishment of Joseph Budde, 575 Mission street, San Francisco, if in want of sanitary closets you have your choice. Supreme, Pioneer, Ocean Spray, Cyclone Syphon Jet, Embossed Front Washout Closets with Tank, Seat and Nickel-plate Flushing Pipe. They give the best satisfaction of all Washout Closets, on account of their Superior Tank and Workmanship. They have been adopted by the Palace, Miramar, Sutherland, Occidental and Grand Hotels, Mechanics' Institute, St. Mary's Hospital, and other prominent buildings of San Francisco.

CITY BUILDING NEWS.

Bayview Ave. near 21st. To build; owner, J. J. Noonan; contractor, T. C. Cochran; signed, May 22; filed, May 23; cost \$2925.

Brannan near Fourth. Granite work on church; owner, D. Nugent; architect, J. J. Clark; contractor, Thomas B. Roche; signed, June 3; filed, June 8; cost \$3500.

Brannan near 4th. Siding, copper and iron work; owner, D. Nugent; architect, J. J. Clark; contractor, J. D. De Gear; signed, May 16; filed, May 22; cost \$3344.

Bush near Baker. To build; owner, J. H. Hunt; architect, J. V. Hull; contractor, A. W. Goss; signed, May 17; filed, May 21; cost \$1600.

Bush and Webster. Additions and alterations; owner and builder, Tim Sullivan; architect, A. J. Barnett; days' work; cost \$2000.

Bush near Laguna. To build church; owner, Congregation Chahal Phalomie; architect, J. M. Lyons; contractor, Henry Rohling; signed, June 11; filed, June 14; cost \$12350.

Buchanan and Ivy. To build; owner, D. Edwards; contractors, Harrigan & Williams; signed, June 13; filed, June 13; cost \$2250.

Buchanan near Hayes. To build; owner, Margaretta Johnson; architect, V. Monet; contractors, Harrigan & Williams; signed, May 8; filed, May 20; cost \$3295.

Capp near 17th. To build; owner, Margaret I. McNamara; architect, F. B. Wood; contractor, Neil Molloy; signed, June 6; filed, June 8; cost \$325.

Caroline near Howard. Cottage; owner, George Heuston; day's work; cost \$1000.

Church near 18th. To build; owner, L. Lange; architect, G. A. Berger; contractor, J. B. Pence; signed, May 18; filed, May 18; cost \$2765.

Cherry near Sacramento. To build; owner, Mrs. C. H. Berlin; architect, Frank Mead; contractors, Dahlberg & Land; signed, May 18; filed, May 17; cost \$2485.

Clement near California. To build; owner, C. B. Adams; contractor, A. J. Clout; cost \$3500.

Clement near 5th Ave. To build; owner, Geo. M. Coon; architect, A. J. Barnett; contractor, J. J. Manseau; signed, May 21; filed, May 21; cost \$1400.

Clay and Locust. To build; owner, E. Dora Cutler; architects, Bugbee & Gash; contractor, D. B. Monroe; signed, May 23; filed, May 23; cost \$1750.

Clementina near 4th. To build; owner, Mary Drummond; architect, H. Gellfuss; contractor, L. Cuneo; signed, May 21; filed, May 21; cost \$3225.

Cliff House. Electric wiring, etc.; owner, Adolph Sutro; architects, Colley & Lemme; contractor, E. H. Frost; signed, June 1; filed, June 12; cost \$1352.

Cliff House. Plumbing, marble floors, etc.; owner, Adolph Sutro; architect, Colley & Lemme; contractor, G. C. Sweeney; signed, June 1; filed, June 12; cost \$2985.

Craut and Nye. Cottage; owner, Wm. McCall; architects, Shea & Shea; contractors, B. Duffey & Son; signed, June 7; filed, June 11; cost \$1015.

Eddy near Broderick. Alterations and additions; owner, Otto Grunzel; architects, Laist & Schwerdt; contractor, H. Behrens; signed, May 16; filed, May 18; cost \$1675.

Eddy near Scott. To build; owner, Louis B. Hetty; contractor, J. J. Manseau; signed, June 14; filed, June 15; cost \$3750.

Ellis near Franklin. To build; owner, Daniel Neill; architect, B. J. Clinch; contractor, P. J. Brophy; signed, June 15; filed, June 15; cost \$4700.

Ellis and Mason. Alterations; owner, Harriet McCarthy; architects, Shea & Shea; cost about \$2000.

Ellis near Buchanan. To build; owner, Elizabeth Taylor; architect, C. R. Wilson; contractor, J. W. Saunders; signed, April 28; filed, May 13; cost \$1465.

Eighteenth near Clover Ave. To build; owner, Johanna Sheehan; contractor, P. F. Lynch; signed, May 25; filed, May 21; cost \$2311.

Erie near Howard. To build; owner, Margaret I. McNamara; architect, F. B. Wood; contractor, Neil Molloy; signed, June 6; filed, June 8; cost \$2805.

First near Fulton. Additions; owner, H. Hunkin; cost \$1200.

Filbert near Jones. Alterations and additions; owner, Board of Education; architect, C. I. Havens; contractors, M. C. Brennan & Son; signed, June 6; filed, June 6; cost \$15,000.

Filbert and Mason. To build; owner, Catherine Borders; architects, Mosser & Son; contractor, L. W. Weissmann; signed, May 25; filed, May 27; cost \$2945.

Fillmore near McAllister. Cottage; owner, Mrs. Laura Albrecht; contractors, Marcuse & Remmel; signed, May 24; filed, June 15; cost \$8800.

Fillmore near Grove. To build; owner, C. A. Worth; architects, McQuigley & Son; signed, May 25; filed, May 25; cost \$2785.

Fillmore near Grove. To build except plumbing; owner, August Jungblut; architects, Martens & Colley; contractor, F. V. Steinman; signed, May 15; filed, May 21; cost \$5200.

Folsom near 24th. Two two-story frames; owner, A. B. Broger; architects, Martens & Colley; contractors, Williams & Foster; signed, May 23; filed, May 23; cost \$7750.

Folsom near 24th. Plumbing; owner, A. B. Broger; architects, Martens & Colley; contractors, Gulick & Wetherbee; cost \$1050.

Folsom near 7th. Additions; owner, Mr. Murray; Carpenter, Mr. Allen; house raiser, A. T. Pencinsky; cost \$1000.

Folsom near 5th. Alterations and additions; owner, Mrs. Mary A. McHaffie; architect, T. H. Welsh; contractor, J. Hendry; signed, May 21; filed, May 23; cost \$4550.

Folsom near 5th. Plumbing; owner, Mrs. Mary A. McHaffie; architect, T. J. Welsh; contractor, J. E. Britt; signed, May 22; filed, May 23; cost \$1047.

Fourth near Howard. Excavation and concrete for four-story brick; owner, Hugh Dimond; architect, C. J. I. Devlin; contractor, Geo. Goodman; signed, May 17; filed, May 20; cost \$1884.

Forty-eight Ave. near J. street. To build; owner, Wm. Gercke; builder, J. Heyman; cost \$2500.

Gary near Octavia. Alterations and additions; owner, Mrs. Clemence Goldsmith; architects, Safford & Kohlberg; contractor, J. V. Hull; signed, June 3; filed, June 6; cost \$4100.

Grove and Devisadero. To build; owner, Mrs. H. W. Armstrong; contractor, W. Little; signed, May 17; filed, May 21; cost \$1195.

Grove near Laguna. Alterations and additions; owner, Mrs. C. W. Hall; architects, Hatherton & Ross; contractor, H. W. Pritchard; cost \$1775.

Green near Mason. To build; owner, Hermine Donahue; architects, Shea & Shea; contractors, Magner & Gallagher; signed, May 13; filed, May 17; cost \$4130.

Guerrero near Camp. To build; owner, Geo. Kennedy; architect, H. Geiffus; contractors, Hood & Watson; signed, May 25; filed, May 27; cost \$3335.

Harrison near 40th. To build; owner, J. McHermott; architect, M. J. Welsh; contractor, M. J. Feeley; filed, May 28; filed, May 29; cost \$17850.

Hampshire and 18th. To build; owners, L. Kundson and Else Nassen; architect, L. Kundson; contractors, Wiegandt & Lassen; signed, May 24; filed, May 29; cost \$1330.

Hartford near 18th. To build; owner, Michael Dolan; contractors, Marcuse & Remmel; signed, June 7; filed, June 8; cost \$3000.

Haight and Scott. To build except plumbing and painting; owner, Chas. F. Decker; architect, R. H. White; contractor, H. Behrens; signed, June 4; filed, June 8; cost \$12,000.

Haight and Scott. Plumbing, etc., on three-story building; owner, Chas. F. Decker; architect, R. H. White; contractor, E. J. Lawton; signed, June 4; filed, June 14; cost \$1497.

Hoffman Ave. near 23d street. Cottage; owner, S. W. Boyston; builder, Heyman; cost \$2500.

Hoffman Ave. near 23d street. Cottage; owner, A. Harge; contractor, J. Heyman; cost \$1250.

Howard near 26th. To build; owner, Catherine Daley; contractor, John L. McLaughlin; signed, May 31; filed, May 31; cost \$3400.

Howard, Second and Market. Excavating trenches; owner, Mutual Electrical Co.; contractor, A. E. Buckman; cost 24 cts. per lineal foot of trench, \$25 each for large man holes, \$19 for second size, \$17 for third size.

Humboldt near Rhode Island. Cottage; owner, Mr. Hartmann; contractor, J. Bae; cost \$900.

Jackson and Pierce. Concrete work, etc.; owner, Abbey M. Scott; architects, Coxhead & Coxhead; contractor, Rhody Ringrose; signed, May 4; filed, May 16; cost \$4450.

Jackson and Pierce. To build; owner, Alice Scott; architects, Coxhead & Coxhead; contractor, M. C. Lynch; signed, May 22; filed, May 23; cost \$4700.

Jackson near Front. Additions and alterations; owner, Hildebrandt, Posner & Co.; architect, J. J. & T. D. Newson; contractor, H. T. Brady; signed, May 16; filed, May 16; cost \$1773.

Jackson near Mason. To build; owner, Geo. H. Jacot; architect, C. M. Rousseau; contractor, R. J. Pavett; signed, May 16; filed, May 17; cost \$4415.

Jackson near Franklin. Excavation and concrete; owner, Henry Sahlein; architects, Salfeld & Kohlberg; contractor, Geo. Goodman; signed, May 16; filed, May 20; cost \$1000.

Jackson near Franklin. Carpenter work; owner, Henry Sahlein; architects, Salfeld & Kohlberg; contractor, John Furness; signed, May 16; filed, May 29; cost \$13,380.

Jackson near Franklin. Plumbing, etc.; owner, Henry Sahlein; architects, Salfeld & Kohlberg; contractors, Ickelheimer & Bro.; cost \$2845.

Jackson near Franklin. Granite work, etc.; owner, Henry Sahlein; architects, Salfeld & Kohlberg; contractor, James Rae; cost \$3600.

Jackson near Franklin. Plastering; owner, Henry Sahlein; architects, Salfeld & Kohlberg; contractor, C. C. Morehouse; cost \$355.

Jackson near Franklin. Painting; owner, Henry Sahlein; architects, Salfeld & Kohlberg; contractors, M. J. & J. J. Donovan; cost \$1535.

Jackson and Franklin. Brick work; owner, Henry Sahlein; architects, Salfeld & Kohlberg; contractor, J. Wagner; cost \$1275.

Jackson near Laurel. Three two-story frames; owner, Chas. Clark; contractor, Casper Zwierlein; signed, June 4; filed, June 7; cost \$11,709.

Jessie near 13th. To build; owner and builder, L. B. Schmidt; cost \$3000.

Julian Ave. near 14th. To build; owner, Mrs. Bridget Costello; contractor, R. Fahy; signed, June 10; filed, June 10; cost \$1700.

Lake Merced to the bluff on the Ocean Shore. owner, Spring Valley Water Works; architect, Engineer of S. V. W. W.; contractor, A. E. Buckman; cost \$1.45 per lineal foot about 3,100 ft.

Laguna and Jackson. Heating and ventilating; owner, W. F. Whittier; architect, E. R. Swain; contractor, W. W. Montague; signed, May 16; filed, May 16; cost \$2955.

Leavenworth near Glover. To build; owner, Jas. Reilly; architect, T. J. Welsh; contractor, R. Fahy; signed, June 12; filed, June 12; cost \$2245.

Market near Fifth. Low pressure steam heating; owner, Mrs. A. M. Parrott; architects, Pissis & Moore; contractors, G. H. Tay & Co.; signed, May 29; filed, June 6; cost \$10,190.

Market near 5th. Interior fire-proof partitions; owner, Parrott Estate; architect, Pissis & Moore; contractor, A. Wanner; signed, May 25; filed, May 26; cost 12½ cents per sq. foot.

Market near Montgomery. Alterations and additions; owners, Brown Bros. & Co.; architects, Kenitzer & Barth; contractor, I. L. Binet; signed, May 31; filed, June 1; cost \$1840.

McAllister and Devisadero. To build; owner, J. J. McCarthy; Sec. Board City Hall Com.; architect, Clinton Day; cost about \$75,000.

Mission near West Ave. To build; owner, C. A. Clinton; architects, Havens & Toepke; contractors, Holm & Shelby; signed, June 11; filed, June 11; cost \$2964.

Mission near Main. Carpenter, plumbing, painting, etc.; owners, H. Bird and C. H. Haugby; architects, Martens & Coffey; contractor, A. McElroy; signed, June 15; filed, June 17; cost \$3044.50.

Mission near Hermann. Repairs; owner, Board of Education; architect, L. R. Townsend; contractors, Holm & Shelby; signed, May 13; filed, May 21; cost \$1181.

Mission near Hermann. Heating for school buildings; owner, Board of Education; contractor, Geo. H. Tay & Co.; cost \$1590.

Mission near Hermann. Painting; owner, Board of Education; contractor, Wm. Linden; signed, May 4; filed, May 21; cost \$1400.

Mission near 4th. Carpenter and mill work, etc. for brick building; owner, A. Wilson; architect, J. R. Miller; contractor, Woodworth Wetted; signed, May 21; filed, May 22; cost \$11,400.

Mississippi street No. 429. Frame building; owner, Ernest and Charlotte Johnson; architect, P. J. Ellis; contractors, Peterson & Person; signed, May 23; filed, May 24; cost \$1395.

Nehrenska and Volo. To build; owner, John J. Hickey; contractor, John D. Coleman; signed, May 29; filed, May 31; cost \$3150.

Noe and 14th. To build; owner, John C. Vooze; architect, C. Geddes; contractor, J. J. Walsh; signed, May 21; filed, May 27; cost \$4000.

Nineteenth and Guerrero. Four three-story frames; owner and builder, F. Nelson; cost \$16,000.

Pacific Ave. near Webster. To build; owner, Ray Wertheimer; architect, J. E. Kraft; contractors, Gardner & Boyder; signed, May 9; filed, May 15; cost \$6838.

Pine near Taylor. Concrete and iron work for retaining wall; owner, E. B. Hinde; architect, S. G. Hinde; contractors, Cushing, Wetmore Co.; signed, May 24; filed, May 29; cost \$1485.

Post near Franklin. Alterations and additions; owners, Simon Newman; architect, James E. Wolfe; contractor, John Furness; signed, June 1; filed, June 3; cost \$1645.

Polk near Filbert. To build; owner, Luke Burk; contractor, C. C. Blair; cost \$390.

Polk and Vallejo. To build; owner, Martin Hink; architects, Martens & Coffey; contractor, J. Bucher; signed, June 10; filed, June 10; cost \$5619.

Sanchez near 17th. To build; owner, Frank P. Currie; contractors, White Bros.; signed, May 17; filed, May 20; cost \$1900.

San Jose Road near Brook street. To build; owners, John and Mary Lally; architect, R. Reichenbach; contractor, J. Kenealy; signed, June 3; filed, June 3; cost \$1530.

Scott near Turk. Alterations and additions; owner, Claus Wreden; architect, W. Winterhalter; contractor, A. B. Schmit; signed, May 16; filed, May 17; cost \$2465.

Steiner and O'Farrell. To build except plumbing; owner, D. J. Murphy; architects, Townsend & Wyneken; contractor, W. H. Field; signed, May 18; filed, May 18; cost \$10,470.

Steiner and O'Farrell. Plumbing; owner, D. J. Murphy; architects, Townsend & Wyneken; contractor, J. Doherty; signed, May 27; filed, May 29; cost \$1525.

Stockton near Lombard. Additions and alterations; owner, Ole Joergensen; architects, Martens & Coffey; contractor, H. Behrens; signed, May 27; filed, May 31; cost \$2200.

Sixteenth near Guerrero. Additions and alterations; owner and builder, L. B. Schmidt; cost \$2000.

Taylor and Post. To build; owners, Executors Mollenhauer Estate; architect, P. J. Welsh; contractor, A. L. Campbell; signed, May 31; filed, June 3; cost \$4700.

Tenth near Howard. To build; owner, Norwegian Danish Methodist Congregation; day's work; cost \$4000.

Tenth Ave. near California. To build; owner, Chas. Braun; contractor, J. Heaney; signed, May 21; filed, May 25; cost \$1525.

Tennessee street No. 1711. Additions; owner, Mr. Grady; carpenter, C. Holm; house raiser, A. T. Penesky; cost \$900.

Third Ave. and Clement street. To build; owner, Mattie de Curtion; architect, Wm. Armitage; contractor, Carl Ross; signed, May 24; filed, May 29; cost \$2800.

Twenty-third near Douglass. To build; owner, S. W. Royston; architects, Townsend & Wyneken; contractors, Williams & Foster; signed, May 21; filed, May 23; cost \$1880.

Twenty-fourth near Alabama. To build; owner, Samuel McKee; architect, Evan Woods; contractors, Westerlund & Holmgren; signed, June 6; filed, June 7; cost \$1705.

Twenty-first and Valencia. Additions; owner, J. Lennon; contractor, J. O'Sullivan; cost \$2500.

Union near Powell. To build; owner, Jos. Garibaldi; architect, E. Deplierre; contractor, D. Ross; signed, May 16; filed, May 18; cost \$2877.

Utah near 24th. To build; owner, Martin Johnson; contractor, Thomas F. Michell; signed, June 15; filed, June 17; cost \$1175.

Vallejo and Hodges Alley. To build; owners, A. Gutell and A. Lucel; architect, E. Picasso; contractor, Felice Torgino; signed, May 31; filed, May 31; cost \$1600.

Varennas near Union. To build; owner, Davis Garibaldi; contractor, L. Cuneo; signed, June 6; filed, June 6; cost \$2550.

Vermont near Humboldt. Cottage; owner, L. Rendler; day's work; cost \$1500.

Washington near Walnut. To build; owner, W. S. Gage; architect, H. Burns; contractor, F. A. Williams; signed, May 15; filed, May 16; cost \$7283.

Washington near Walnut. Plumbing, etc.; owner, W. T. Gage; architect, H. Burns; contractors, W. S. Snook & Son; signed, May 15; filed, May 16; cost \$1730.

Walter street No. 309. Alterations and additions; owner, Mrs. Margaret Hooper; architect, E. C. McManus; contractor, P. J. Brophy; signed, April 4; filed, May 15; cost \$1710.

Wisconsin near Napa. Cottage; owner, C. Mackintosh; contractor, J. Young; cost \$1200.

York near 21st. To build; owner and builder, Wm. Hebbing; cost \$8000.

The California Architect and Building News.

Copyrighted 1895, by the California Architectural Publishing Company.

OFFICE: 408 CALIFORNIA STREET,

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

VOLUME XVI.

JULY 20th, 1895.

NUMBER 7.

A MONTHLY JOURNAL DEVOTED TO THE ARCHITECTURAL INTERESTS OF THE PACIFIC COAST.

Published on or about the 20th of each month by The California Architectural Publishing Company. The Stockholders being Architects and others interested in the profession.

SUBSCRIPTION TO THE JOURNAL, \$3.00 PER YEAR IN ADVANCE.

ESTABLISHED 1879.

INCORPORATED 1889.

NOW IN THE SIXTEENTH YEAR.

W. J. CUTHBERTSON, President.

OLIVER EVERETT, Secretary.

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THE Manufacturers and Producers Association of the Pacific Coast is doing good work in calling attention to the excellence of California manufactures and work and the undesirability of patronizing goods and work from elsewhere. And in line with the argument let us draw attention to the CALIFORNIA ARCHITECT AND BUILDING NEWS, the representative of Pacific Coast Architects. This should be certainly patronized and helped by the architects, builders and owners of this coast. It now stands on a par with any other publication of its class and price in the world—and in the general return of sense in the matter of trading with our neighbors we believe that the CALIFORNIA ARCHITECT AND BUILDING NEWS will not be forgotten either by California advertisers or by subscribers.



It goes without saying that the proper bringing up of the rising generation is one of the most important objects before us, and to see that it is properly housed during the time that it is occupied in common education is one of the duties of the commonwealth.

To judge from the Report of the Chairman of the Building Committee of the Board of Education of San Francisco, this city is not quite up to date in this regard. From it we find that taking the school buildings generally they are not in the best condition for a proper æsthetic effect upon the pupils studying therein. Twenty-eight buildings have dirty walls and need whitening or rather tinting, as white walls should not on any consideration be allowed in a school room. Thirty-nine need painting. The playgrounds and yards

are just as necessary to be kept in good order as the buildings themselves. We find, however, that forty-two require their yards bitumenized; planking should no more be used, both on account of decay and for unevenness of surface; not good for running around on.

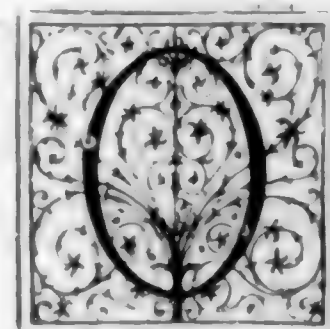
Proper privacy and clean sanitary appliances in the latrines are other things that tend to rear healthy and modest children—therefore crockery troughs instead of the present thirty-three wooden asphatum lined ones are required and proper partitions, etc. Again, an untidy environment to a school house has its bad effect on the characters of the young ones, therefore nine fences and gates ought to be repaired.

Next, there is no doubt but that over-crowdedness is detrimental to a proper teaching and quite a number of the school buildings are not large enough and require class rooms, principal's rooms, libraries, etc., added thereto.

Twenty-eight buildings require their roofs repaired and nine new floors. In one school the sash and glass are so bad that it is necessary to replace them—the Lincoln School needs repairs, but really a new building should be put up on the site as the present one is dark, gloomy, antiquated and a disgrace to the city. Another building according to the report is in a "dangerous condition and not fit for habitation" and the old Polytechnic School is "in a very bad condition" another is "in a generally dilapidated condition" and so on.

It seems to us good policy to spend money on works which will tend to prevent crime by aiding in rearing better young people; in fact more reasonable than to spend money in finding out, hunting up and punishing crime when it is committed; less police—more proper education.

ROADWAYS AND STREET PAVEMENTS.



UR people begin to realize the importance of excellent roads and their value to all of our industries. The saving made on the wear and tear of our horses and vehicles, also that made by business men in the difference in time it takes to ride over a good and a poor road, and the pleasure to be derived from riding over a good road, are all points which show the need of having first-class roads.

The increased value of property generally amounts to more than the cost of building a good substantial road, and then, too, they are a standing advertisement for the community in which they are built, making the city or town a desirable one in which to reside, helping thus to increase the population and taxable property. A stranger's impression of a city or town depends largely upon the ease with which he can go from place to place in the transaction of business, or in the pursuit of pleasure. The cost of wagon transportation over the roads of France does not exceed one-third the like expense in America, it being common in rural districts to haul three tons, and in the cities from three to five tons net freight with one horse. These and many more facts the people are weighing, and the more they investigate the better it is for the whole country. This movement has already reached such dimensions that it is being agitated all

over the United States, and the people are not going to allow it to stop.

Byrne says countries inhabited by the least civilized people, whose wants are supplied by nature in the immediate vicinity of their dwellings, are almost destitute of roads; hence it has come to be said that roads are the physical symbol by which to measure the progress of any age or people. If the community is stagnant the condition of the roads will indicate the fact; if they have no roads they are savages. There are many methods used in the construction of broken stone roads, and a variety of materials used for street paving, of which I will treat briefly for want of time.

As near as can be ascertained the first broken stone pavements were constructed in France in 1764. In the early part of the present century two systems were introduced into England, the first by Telford and the second by MacAdam. The name of Telford is associated with rough stone foundation. MacAdam disregarded this foundation, contending that the subsoil, however bad, would carry any weight, if made dry by drainage, and kept dry by an impervious covering. The names of both have ever since been associated with the class of roads which each favored, as well as with roads on which all their precepts have been disregarded. MacAdam omitted the foundation of large stones, claiming that it was not only useless but injurious. He was the pioneer of good roads in England, and from his name the word macadamized is derived.

Since the time of Telford and MacAdam the art of road making has been greatly improved by the introduction of rollers and crushing machines. The modern road builder endeavors to adapt himself to circumstances; he must secure a good foundation, either with the natural foundation or with the use of gravel, sand or Telford base, for without this the most expensively-built road will fail. It will not stay in position any more than a building will without a good foundation. Good drainage must be secured, the stone should be properly screened, the largest to pass a two and one-half-inch ring, the second size a one and three-quarter-inch, the third a one and one-quarter-inch, and the fourth a one-half-inch ring. The foundation should be brought to a proper grade and crown, and thoroughly rolled. The depth of stone should be varied according to the foundation and the traffic expected. If a good foundation four inches is enough; if a poor foundation twelve inches might be needed. The crushed stone should be spread in light, uniform layers, well rolled, commencing at the bottom with the largest stone, and using the smallest size for the finish. Nothing but the best quality of stone should be used; for this purpose trap rock is the most desirable, and will wear more uniformly, thus keeping a smoother surface than an inferior stone. We cannot afford to use an inferior quality of stone; it is economy to use the best.

Macadamized streets are the cheapest to build, and give good satisfaction when placed under the right conditions, namely, when the traffic is not too heavy and not confined to a narrow space. For instance, one street is always in good condition, as it has an average traffic which is distributed over the entire surface, while all of the macadamized streets in the business portion of the city, where the traffic is too heavy, are often in bad condition, and should be paved. This class of roads cost from 50-cents to \$1 per square yard, varying according to the cost of stone, length of haul, depth of stone and cost of foundation. The cost of maintenance with a moderate traffic, of a thirty-foot roadway, is .013 per square yard. With a heavy traffic, where macadam cannot

be used with economy, it costs from .03 to .25 per square yard. The date of the first introduction of street pavements cannot be determined with certainty. Livy informs us that in the year 584 (about 170 years B. C.) the Censors caused the streets of Rome to be paved from Ox market to the temple of Venus. Streets paved with lava, having deep ruts worn by the chariots and raised banks on each side for foot passengers, are found at Pompeii. The first act for paving and improving the city of London was passed in 1532. Orders were issued by the government for pavements in Paris in the year 1184. In the United States, Boston appears to have been the first city to pave its streets. Drake says the paving of the public streets began very early and was made important about 1700.

STONE PAVEMENTS.

Stone in a variety of forms has been used for paving material for 2,500 years or more. It was used by the Romans in the form of large irregularly-shaped blocks; these blocks being laid on a massive concrete foundation. For solidity and durability this form is unequaled. Boston, Mass., it is recorded, had its streets paved with pebbles as early as 1663, and cobble-stone pavements were introduced into Philadelphia in the year 1718. Cobble stones bedded in sand are very cheap, but their roughness requires a large amount of power and energy to be expended in order to move a load over them; besides they do not make a good pavement, as they are so irregularly shaped that it is almost to hold them in place. They are difficult to keep clean and very unpleasant to ride over. In Brussels this form of pavement was displaced by small cubical blocks of stone, and these were used in Paris and finally came to the United States.

GRANITE BLOCKS.

Granite blocks were of large dimensions. The present granite block is of a narrow, rectangular shape, proportioned and laid on a hydraulic cement base, the joints filled with small gravel stones and paving cement. This method is practically a return to the Roman system, only with blocks of smaller dimensions. Without a doubt this form of pavement is the most durable for roadways which are subjected to a very heavy traffic. If a poor quality of stone is used, for instance those that polish, the surface becomes slippery quickly and is rendered unsafe for travel. In some cities Medina stone is used. It is not so lasting as granite, but is quite durable, less noisy and does not become slippery. Buffalo, N. Y., Cleveland and Columbus, O., afford the best examples of this class of pavement. Limestone block pavements were tried in Kansas City, but in a year or two they wore unevenly and split by the action of frost. Granite block pavements cost from \$2.50 on sand foundations, with joints filled with sand, to \$4.80 with concrete base and joints filled with paving cement. No satisfactory figures can be obtained for the cost of maintaining granite block pavements in America.

BRICK.

Brick is one of the oldest materials used for paving, having been used upwards of a hundred years in the Netherlands. Pavements laid fifty years ago are still in good condition. There are several brick pavements in the United States, from twelve to twenty-two years old, which are still

in good condition. The general experience with this class of pavements is that it furnishes a smooth and durable surface, well adapted to moderate traffic. Many failures have occurred with this class of pavements, owing to poor foundation, defective construction and poor material. Whenever proper materials have been used, good foundation laid, with proper construction, excellent results have been obtained. Amsterdam is paved almost entirely with brick, and it is successfully used in Rotterdam, which is a commercial city. There are many ways of laying a brick pavement. A sand foundation, with joints filled with sand, cost \$1.50 per square yard; laid with two courses of brick, one flatwise, with a cushion of sand and a wearing surface set on edge, with joints filled with Portland cement—this costs \$2.06 per square yard. If laid on concrete base, with joints filled with paving pitch it costs \$2.73 per square yard.

Bricks made from blast furnace slag have been tried, and they have been found to be durable, but soon wear slippery. Ordinary building bricks saturated with gas tar have been experimented with in Nashville, Tenn., but the results were not satisfactory. The advantages of brick pavements are, ease of traction, and good foothold for horses; yield but little dust and mud; are adapted to all grades, and are very easily repaired and kept clean; but slightly absorbent; pleasing to the eye and quickly laid. The principal defects of brick pavements arise from lack of uniformity in the quality of the bricks, and the liability of using bricks too soft which crumble under the action of traffic and frost.

ASPHALT.

In Paris asphalt was first employed for street paving in 1838, though it was not used to any extent until 1854. London introduced it in the year 1869, and it has since then been used extensively throughout Europe and in different sections of this country during the past few years. The difference between the asphalt pavements of Europe and those of America is due to the character of the materials. The former are composed of limestone rock which is naturally impregnated with bitumen, while the latter are composed of an artificial mixture of bitumen, limestone and sand. Many deposits of bituminous rock are to be found in the United States; they have been used to a limited extent. The Island of Trinidad continues to be the source of supply for the United States. The cost of construction varies from \$2.50 to \$4.50 per square yard. Cost of maintenance in America is placed at an average of 10 cents per square yard per annum; in London for an average of fifteen years at 21 cents per square yard. In Paris it costs about 40 cents per square yard per annum to maintain it, including the charge for renewing one-fifteenth part of the surface every year. In this country the cost of maintaining asphalt pavements is usually included in the original contract for construction for a stated term of years, and after that any repairs that are needed are made by the asphalt companies at the expense of the city, as it calls for expert work and an expensive plant.

The advantages of asphalt pavements are, that they are comparatively noiseless under traffic, are pleasing to the eye and are easily cleaned. The defects of the same pavements are, that they are slippery under certain conditions of the atmosphere, they will not stand constant moisture, and will disintegrate if excessively sprinkled. It is not adapted to grades steeper than 2½ per cent. Colonel Haywood states that in his opinion asphalt will last without

extensive repairs from four to six years, and that in the course of ten years the entire surface will have been renewed.

WOOD.

Wood pavements have been used extensively in Europe and the United States, though with different results in both countries. The experience in this country has been with but few exceptions unsatisfactory, while in Europe, especially in London, wood pavements have been used successfully and are quite popular, due probably to the thorough manner in which they were laid and the careful maintenance. The shoeing of horses and the width of tires has something to do with the wear of pavements no doubt. In some portions of Europe this matter is regulated by law, and should be in the United States. It is claimed that wood pavements absorb the filth of the street, and are very unhealthy.

DISTILLATE PAVEMENTS.

During the years 1886 and 1887 many coal-tar or distillate pavements were laid in Washington, D. C., but many of them proved unreliable. In some towns in England coal-tar macadamized roadways are made. This consists in mixing ordinary coal tar with crushed stone; it should be borne in mind that the stone used must be limestone or some soft stone, otherwise it will not wear down evenly with the tar, thus producing a lumpy surface. Concrete macadam, introduced by Mr. Mitchell, London, Eng., is composed of broken stone, sand and Portland cement, so proportioned that the space, otherwise vacant, is filled with an admixture of Portland cement. Mr. Mitchell states that the first piece of concrete road was laid in Inverness, in the approach to the freight station, in 1870. After the road had been used four and one-half years the wear was hardly perceptible.

GRAVEL ROADS.

We have miles of gravel roads in my city that are very fine in dry weather, but a few minutes rain makes the worst kind of red mud. On residential streets where there is light traffic and sand foundation it makes a fair surface, but on most of the streets where this material is in use, it would be economy to employ some other material. We have often been told of the excellent roads of Europe, which are under the government's control. On these roads a force of skilled men are continually at work making repairs, and any defect, however slight, is immediately repaired. It is not considered that the necessity for continual repairs is an evidence of poor workmanship in the original construction, but rather that an earnest endeavor is being made to keep the roadway in perfect repair. This prompt and constant repairing explains the superior condition of the roadways of Europe.

The men who have these repairs in charge are men skilled in this kind of work, and hold their positions because they are thus qualified. Politics has nothing to do with them as it has in this country. These men are removed for cause only. It takes years to teach men the art of road building and the proper method to be employed in making repairs. Generally in this country cities and towns pay for educating the men in charge of their roads and then politics removes them, but time will make this matter right. It will certainly be made right when people find that it is the only way to have good roads. All of us have much to learn in regard to road building. To a very large extent it is in an experimental stage in this country at the present time, and without doubt millions of dollars will be foolishly expended on worthless pavements. This waste of time and money

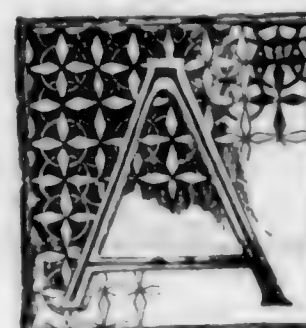
could be saved to a large extent if every person who has a theory or scheme of his own would consult with men thoroughly informed on the subject.

For instance in this state (Massachusetts) we have a Highway Commission composed of three men appointed by the governor, and who are in touch with the most experienced road builders in the world. Fortunately for our state we have on this commission very bright, intelligent men who have the cause at heart. These men are workers, and are not afraid to go into the field themselves. They are well informed on the construction and maintenance of our roadways, and are in every way qualified to give sound, practical advice, and the officials of our cities and towns could not do better than to avail themselves of their advice and experience. When the people become thoroughly aroused on this subject they will demand and finally secure the best possible methods of construction and maintenance.

Aside from the facts quoted from well known authors I am indebted for much information to the kindness of many of our citizens who have traveled in this country and in Europe.—William L. Dickinson in Stone.

WHAT TO EXHIBIT IN MEXICO.

BY OTTO SCHROEDER.



AFTER fifty years of revolutions and political changes, Mexico is now enjoying peace and prosperity. The administration of General Diaz has incited confidence in Mexico's finances at home and abroad. Industry and Commerce have considerably developed during the last twenty years, export and import have doubled. The value of the exports from Mexico for the financial year 1891 was more than \$63,000,000 and of the imports more than \$50,000,000. Of the total exports for 1892 the United States received \$50,000,000, Great Britain \$15,000,000, France \$5,000,000, Germany \$4,000,000. There are more than 7000 miles of railroad open to traffic. The telegraph lines have a total length of 38,000 miles. The postoffice receipts of the Mexican Government were in 1891-92 \$1,142,182. Navigation is practised on lakes and rivers at the coasts and across the Ocean. Mexico possesses a merchant navy of 1268 vessels and there are more than 30 excellent harbors.

Mexico's Trade with the United States increases more rapidly than it does with any other country.

In 1888-1889 Mexico received the following articles of import:

Cotton goods from United States, England, France, Germany.....	87,534,080
Comestibles from United States, Spain, Italy.....	4,893,706
Drugs from United States, France, Germany.....	1,697,830
Woolen goods, from France, England, United States, Germany.....	1,613,186
Iron and steel ware from United States, England, Germany, France.....	1,510,310
Paper from United States, Spain, France, Germany, Italy.....	1,352,143
Silk goods, pure and mixed, from France.....	788,581
Linen and hemp goods, from England, France.....	673,029
Hardware from United States, Germany, France.....	658,854
Glass and porcelain from United States, France, Germany.....	607,727
Copper ware from United States, France, Germany.....	593,167
Machines from United States.....	539,582
Furs from United States.....	414,100
Furs from United States, Spain, France, Germany, Italy.....	320,844
Gold ware, silver ware, platin ware from United States.....	280,453
Arms and munition from United States.....	213,796
Carriages from United States.....	81,816
Stone and earthen ware from United States.....	75,969
Lead ware, tin ware, zinc ware from United States.....	75,969

This list shows the American exporters what they may

with profit exhibit at the International Fair, which will be inaugurated at the City of Mexico on the 2d day of April 1896. The American manufacturers must make a display of their electrical and steam machinery, hardware and tools, plated ware and cutlery, agricultural implements, rails and locomotives, well boring apparatus and pumps, pianos, and organs, railroad cars for passengers and freight, mining apparatus, silk and woolen goods, printing presses and type, books and paper, maps and globes, slates and lithographic stones, canned meats and preserves, clocks and watches, quicksilver and petroleum and a hundred other articles which Mexico does not produce herself.

Nobody ought to miss this golden opportunity. Our American Industry cannot afford to stay away from the Mexican Exposition as Spain and France, Germany and Italy are already making strong efforts for a great participation.

The Federal Government of Mexico has liberally consented to admitting free of duties all materials and machinery to be used in the construction of any buildings on the Exposition grounds, while all goods and articles imported from abroad for the Exposition will be treated by the Mexican Government as imported "in bond" and import duties will have to be paid only in case of sale.

The exhibitors and concessionaires—those who sell foreign articles, or have hotels, restaurants, barrooms, theaters, circuses, and other shows in the foreign section, are to be exempt from all federal taxes.

A Lottery will be conducted in such a way that all prizes are to be bought from exhibitors.

The railway and steamship companies will carry exposition freight for considerably less than the regular tariff.

It is proposed to offer special premiums for the best model houses of different countries, said houses to be entirely constructed of material produced in the country which they represent.

Prizes will also be offered for large hotels which are to be erected on the American and European plans, an inducement which will certainly incite the competition of prominent architects and builders of different countries.

Concessions will be granted by special contract for the sale of souvenirs and novelties of every kind.

So it is of vital interest for the American architects and builders, the cabinet and upholstery branch, the carpet trade, the carriage and harness branch, the clothing and furnishing line, the crockery and glass dealers, the drug and paint manufacturers, the dry goods men, the iron and hardware line, the type foundries, the sewing machine makers, the slate trade, the manufacturers of textile goods, the jewelers, to exhibit at the City of Mexico.

To encourage immigration the Mexican Government has granted free introduction of constructing and repairing materials for tramways for a period of thirty years, it will give concessions for hotels free from taxes for a period of ten years and will allow a free introduction of all furniture, crockery, glassware, etc., to be used in said hotels. It has promised to a Colonization Land Co., which is now being organized at Chicago, the special concessions of free introduction of houses, implements, etc., and the liberation from paying taxes for a period of ten years.

There is no doubt, that Mexico's population will in the near future increase in the most surprising manner, and there will be a vast field for American enterprise and business speculation.

The visitors of the Exposition of 1896 will to a great ex-

tent consist of Spanish talking people. Mexico and Costa Rica, Cuba and Guatemala, Honduras and Porto-Rico, the Argentine Republic and Brazil, Chile and Colombia, Paraguay and Peru, Ecuador and Venezuela will be represented by thousands of people, who will investigate and compare the exhibits of all nations and of all individual firms and who will form their opinions according to their experience. To exhibit in Mexico means to make a display of samples to all Latin-American States. Each American exhibit will be an advertisement for American Industry. No American firm ought to neglect this great opportunity.

SEMI-ANNUAL SUMMARY OF BUILDING OPERATIONS.

It will be seen, that though the number of buildings has slightly reduced, the total amount for the first six months of 1895 show an increase.

FOR FIRST SIX MONTHS, 1895.

1895	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.....	2	3	\$ 50,025	31	33	\$ 148,880	4	4	\$ 20,847	37	40	\$ 219,732
February.....	7	9	\$ 95,386	38	42	\$ 122,880	4	6	\$ 12,071	51	57	\$ 340,267
March.....	6	9	\$ 170,480	76	81	\$ 208,081	8	11	\$ 17,418	90	101	\$ 395,568
April.....	7	9	\$ 103,383	57	69	\$ 274,080	24	24	\$ 87,111	88	102	\$ 464,524
May.....	3	7	\$ 36,043	85	90	\$ 383,037	19	19	\$ 33,973	107	116	\$ 463,053
June.....	2	5	\$ 74,775	67	85	\$ 288,791	11	11	\$ 21,612	80	101	\$ 385,178
Total.....	27	42	\$ 490,001	354	400	\$ 1,435,749	72	75	\$ 103,332	453	517	\$ 2,125,082

To this amount should be added the further estimated sum of \$500,000 where costs have not been given, which would make the total for the first six months, \$2,625,082.

FOR FIRST SIX MONTHS, 1894.

1894	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	5	\$ 64,807	27	37	\$ 124,630	19	29	\$ 46,016	47	71	\$ 255,453
February.....	2	6	\$ 36,446	22	31	\$ 96,975	7	12	\$ 17,452	31	49	\$ 150,883
March.....	1	3	\$ 11,225	56	60	\$ 386,470	14	17	\$ 31,591	71	80	\$ 411,286
April.....	7	15	\$ 165,437	121	144	\$ 280,214	16	21	\$ 33,004	141	180	\$ 488,255
May.....	5	12	\$ 126,091	33	46	\$ 190,533	16	16	\$ 30,281	66	74	\$ 376,925
June.....	7	11	\$ 74,704	40	46	\$ 152,592	13	13	\$ 39,166	60	70	\$ 266,962
Total.....	23	52	\$ 470,360	301	364	\$ 1,258,924	85	108	\$ 221,140	419	524	\$ 1,950,424

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
1893—475	3,024,498
1894—524	2,456,424
1895—517	2,625,082

AN ALMSHOUSE INSCRIPTION.

IN front of some almshouses at Leominster, England, there is the quaint stone figure of a man holding a hatchet in his hand, and underneath there is this inscription:—

He who gives his money before he is dead
May take up a hatchet and cut off his head.

The story current in the neighborhood says that the founder of these almshouses came to want through being involved in building expenses for them, and actually had to seek refuge within their walls as one of the inmates.—Exchange.

GAS AND GAS LIGHTING.

SINCE Mr. W. Murdock who lighted his premises in Cornwall with coal gas in 1792, the increased use of this gas has been enormous, as the many millions of tons of coal consumed in its manufacture prove, but even in the early days of its use there were found many old fogies who promised all kind of evil would follow if the use of gas was allowed. More than one hundred years have passed and we find the old fogy still busy at the same old cry of danger in its use to the health of the user; thousands of those at the present time know better by their personal experience and enjoy the luxury of cooking and heating their rooms by its use; the old fogy still lives and croaks however.

THE NEW FRENCH HOSPITAL.

SUNDAY, June 30th, the French Hospital was open to the public for inspection. We think no one of the many thousands that passed through the gates on that day but felt fully rewarded for the trouble of a trip to Richmond. From the reception room through the various wards, into the operating room and last though not least to the famous kitchen with its magnificent range (we say magnificent because it struck us that way upon the first glance), visitors were allowed perfect freedom to inspect and admire the various departments, and many comments were heard upon all sides upon the thoughtful care that must have been displayed by the designers and directors of this most beneficial and useful addition to our city, with the thought that generations yet unborn will rise to repeat the praise of the gentlemen who with such untiring perseverance have provided such a blessing to the community.

Each visitor was presented with a beautiful souvenir programme of the New French Hospital containing a history of the French Mutual Benevolent Society, the various illustrations in this souvenir give excellent views of the new buildings as seen from Point Lobos avenue, from 5th avenue as well as interior of main court and various other interior views of the wards and other rooms of interest.

Our space will not permit us to do justice to this subject, but we cannot refrain from giving some general figures to give the reader an idea of the size of this ornamental building erected and dedicated for the welfare of our citizens.

This New French Hospital, occupying a beautiful site 240 by 600 feet on Point Lobos avenue between 5th and 6th avenues and only a few minutes walk from Golden Gate Park is something to be proud of and every one having an interest in the health and welfare of our city will rejoice at the successful completion of such a blessing to humanity.

BOSTON'S PUBLIC LIBRARY.

THE completion of the Boston Public Library, the erection of which has caused a good deal of discussion in architectural journals, though the general opinion appears to be that notwithstanding a Boston architect was not employed as its designer, the building has much to admire.

The *American Architect and Building News* writing in regard to the cost of the building and expense of running the Library make the startling announcement that it would be cheaper to purchase and give outright the book required, than to lend it from the Library.

It may not be uninteresting to note the commencement of the Boston Public Library as an illustration of what can be

accomplished in a community where public interest is once aroused to act for the good of the public.

At the time Mr. Bigelow was Mayor of Boston, Edward Everett, then President of Harvard University, or to write more exactly, University of Cambridge, wrote to Mr. Bigelow, as Mayor of Boston, that if the city would provide a room for the purpose he would donate a thousand volumes as a commencement for a Public Library; at the next meeting of the Aldermen, Mayor Bigelow announced that he would donate a thousand dollars for the commencement of a Public Library. Shortly after this a room was provided in the City Hall and Mr. Everett's books were sent to that place, from that small beginning the present establishment has been founded.

To Mr. George Ticknor of Boston however, perhaps the credit should be given of making the Library a popular institution, Mr. Ticknor's idea was to have a large number of duplicates purchased of any popular work that less delay might be caused in obtaining the book required for the moment.

This plan was adopted with some hesitation on the part of the trustees and from that time the Library became a Boston institution in touch with the public, therefore a success.



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.

ROBERT Clark Testimonial Medal Competition, Art Club House, submitted by Renaissance. T. O'Connor. *del & invet.* Elevation and Perspective.

STUDY for Town Hall by D. J. Patterson.

TENDERS TO BE RECEIVED.

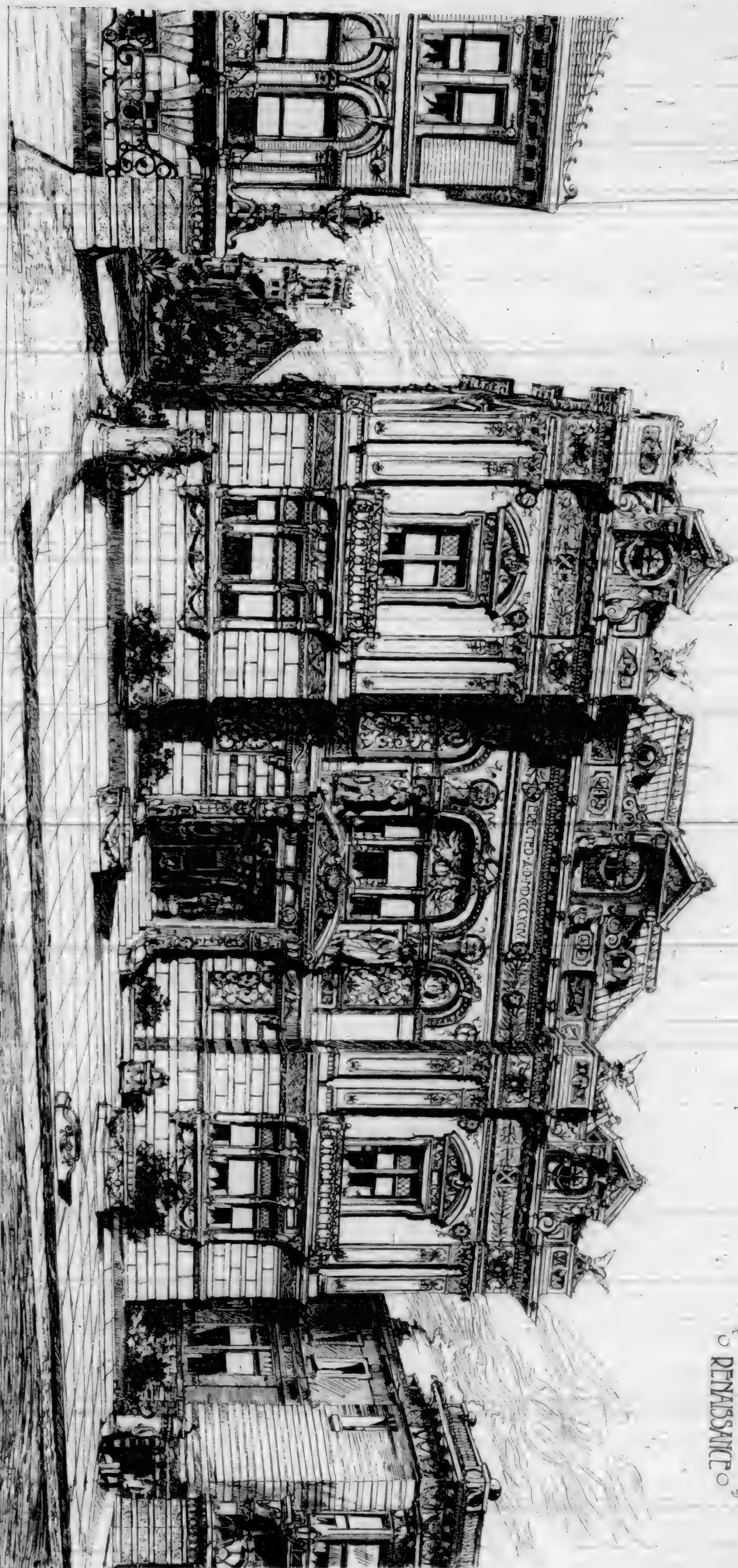
Office of the Custodian, U. S. Quarantine Station at Angel Island, San Francisco, California, July 9, 1895. Sealed proposals will be received at this office until 12 o'clock M. on the 31st day of July, 1895, and opened immediately thereafter, for all the labor and materials required for the new bulkhead, etc., at the above named station, in accordance with the drawing and specification, copies of which may be had at this office.

Each bid must be accompanied by a certified check for a sum not less than two per cent of the amount of the proposal. The right is reserved to reject any or all bids, and to waive any defect or informality in any bid if it be deemed in the interest of the Government to do so. Proposals received after the time stated for opening will be returned to the bidders. Proposals must be enclosed in envelopes, sealed and marked, "Proposals for New Bulkhead, etc., at the U. S. Quarantine Station, Angel Island, San Francisco, California," and addressed to

DR. D. A. CARMICHAEL,
Custodian.

ROBERT CLARK TESTIMONIAL
MEDAL COMPETITION

T.O. CONNOR-95



SUBMITTED BY
RENAISSANCE

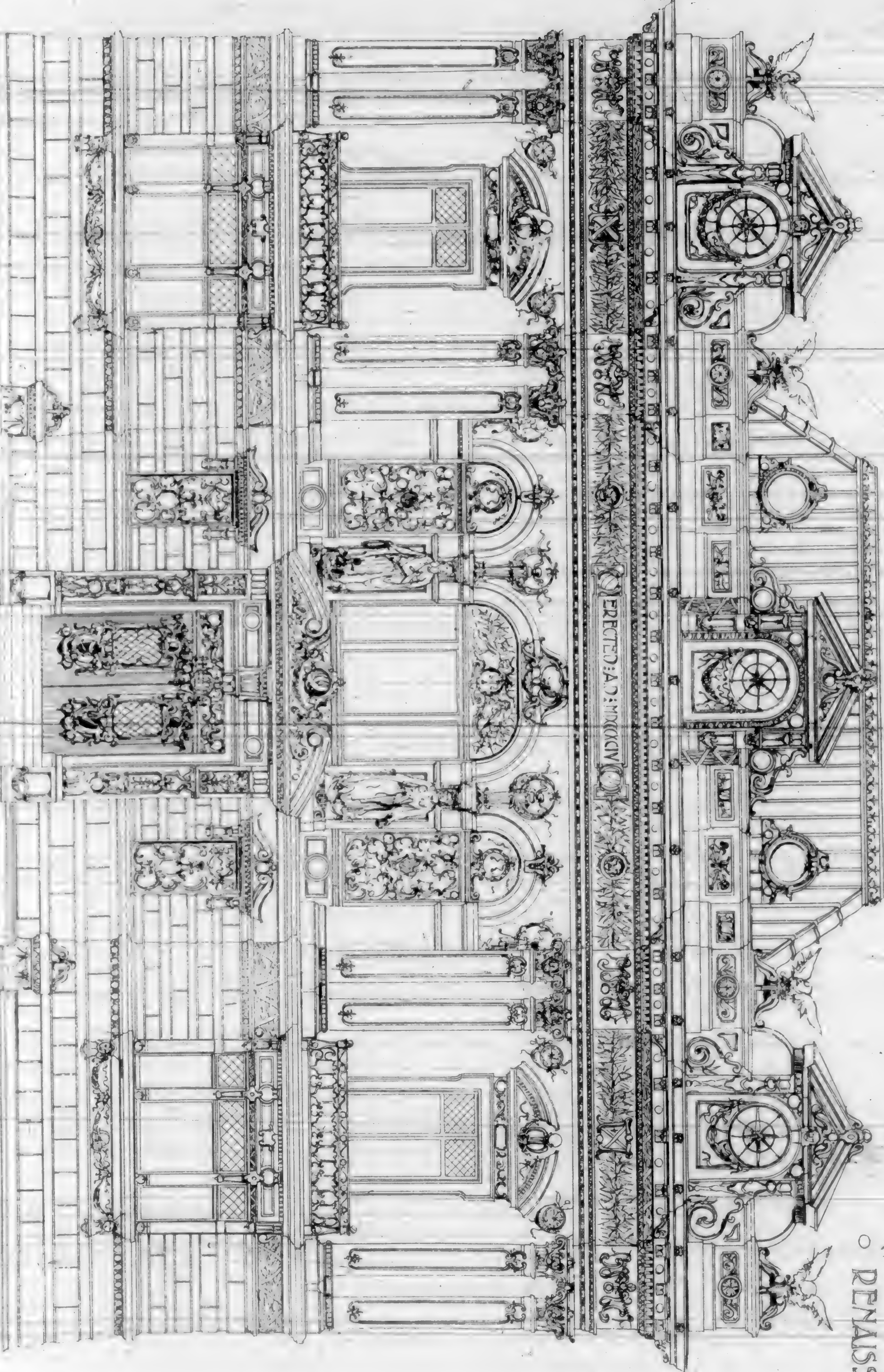
CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO

BRITTON & REY PHOTO LITH.

VOL. XVI No 7 JULY 1895.

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ART CLUB HOUSE

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STUDY FOR TOWN HALL
- 1895 BY D. J. PATTERSON -



NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS, meets second Friday of each month at 405 California street.
 SETH BABSON, Pres. GEO. W. PERCY, Vice-Pres.
 OLIVER EVERETT, Sec. JOHN M. CURTIS, Treas.

SOUTHERN CALIFORNIA CHAPTER AMERICAN INSTITUTE OF ARCHITECTS, meets first Wednesday of each month at 114 Spring street, Los Angeles, Cal.
 OCTAVIUS MORGAN, Pres. A. M. EDELMAN, Vice-Pres.
 ARTHUR B. BENTON, Sec'l. AUGUST WACKERBARTH, Treas.

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

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

THE POSTOFFICE SITE.

THE following official report of the United States Government engineers, as to the stability of the site selected for the new Postoffice building in San Francisco, located at the corner of Seventh and Mission streets, seems to set at rest all questions as to the permanency of any building erected on this lot, and removes the last reasonable ground for longer delaying the commencement of work on this long needed and long hoped for building.

SAN FRANCISCO, CAL., July 8, 1895.

The Honorable Secretary of the Treasury, Washington, D. C.

SIR:—The undersigned, appointed in accordance with the provisions of the act of Congress, approved March 2, 1895, to examine the site for the Postoffice and Courthouse building in San Francisco, have the honor to render the following report:

Under date of April 5, having received notification of appointment to perform the duties assigned to us, we reported to you for instructions to guide us in the proposed examinations. On May 27th instructions were issued from the acting Secretary of the Treasury and received by us on June 4th. In this letter we were requested "to examine the nature of the subsoil and bed of the foundation, and to report to the department whether the character of the same is proper for the contemplated building, and what would be the cost of making the foundation for said building, and whether the construction of said building should be proceeded with on said site." We were further requested to make a recommendation as to the character of the foundation and present an approximate estimate of same.

Immediately after the receipt of the above mentioned letter proposals were invited from S. M. B. Haley, who made the former borings on the site, and the Beal Core Drill Company. One bid was received, that of Haley. Mr. Haley proposed to bore the site to a depth of 30 to 50 feet at the rate of \$1.25 per foot; beyond 50 feet he was to receive 50 cents additional for each foot.

Under the former action of the Treasury Department four borings were made at the site. These borings will be designated A, B, C and D. Their locations approximate to the four corners of the building. A was near the southwest corner and was sunk to a depth of 149 feet. B was near the southeast corner, depth 111 feet. C was near the northwest corner, depth 147 feet. D was near the northeast corner, depth 140 feet. In a general way the borings at B, C and D show that to a depth of 38 to 40 feet clean sand of varying colors was found; thence to a depth of 50 feet clay was found and below that sand of different grades and colors.

In boring A the indications were not so favorable in the upper strata, as the sand was found mixed with vegetable matter, debris, peaty sand, etc. Our boring indicates like nature of material at same location, extending through only a limited area.

We made eleven additional borings to a depth of 50 feet each. Their location is shown on the foundation plan. They are designated by numbers. Borings 1 to 6 inclusive show that to a depth of about 38 feet clean sand of varying colors was found, as in the previous borings; then a stratum of black peat about 6 inches in thickness; then about a foot of heavy black mud, and below that to 50 feet slate-colored clay. Borings 7, 8, 9 and 10 were made at the southwest corner, as at this location the nature of the sub-soil appears to indicate that some additional precautions should be taken in preparing the foundation, and the accompanying diagram shows the locations of these five borings. No. 7 was in the immediate vicinity of A. Yellow, black and white sand was found to a depth of 24 feet; thence to 40 feet sand, mud, debris, in general rather soft material, and below that to 50 feet sand and clay. No. 8 showed the general characteristics of borings 1 to 6. No. 9 showed common sand to 19 feet; then 1 foot of soft black mud and decayed vegetation; then 1½ feet of black peaty mud and sand, filled with sticks, roots, etc.; then good sand for 18½ feet, with a few grass roots at about 29 feet; at 40 feet 1 foot rotten wood and soft mud; then black clay, hard and sticky; 1 foot thick; then slate-colored and yellow sandy clay to 50.3. Nos. 10 and 11 had the usual characteristics of the first borings; that is, sand to 38 and 40 feet, and clay below to 50 feet. The results of the borings are shown on the tracings inclosed.

Throughout the site the general indications are of hill sand to depth of about 28 feet below the surface of the ground, and below that clay. The Coast Survey chart of 1858 shows that the site was a sand lot covered with brush and small trees. There was no indication of running water on the lot. It is only in the northwest corner for a distance of from 50 to 60 feet along Seventh street and along Mission that the material is of such a nature as to cause extra precautions to be taken with the foundation. Water was found at a depth of 8.8 to 12 feet. The surface of the ground was connected by levels with the beach mark (29.04) and the level of the water standing in each well was determined. This latter level is shown on the plats.

It may be stated that the material as found and brought to the surface may not show its condition in place, as the boring apparatus necessarily broke up the mass, and its mixture with the water in the well caused it to appear soft and yielding. It may be that in its natural condition it may stand the same amount of pressure as in other portions of the site.

To the first inquiry, therefore, whether the character of the subsoil is proper for the contemplated building, we are of the opinion that the building can be safely constructed upon it. As to the inquiry whether the construction of the building should be proceeded with, from an engineering point of view we see no reason to report otherwise.

It remains for us to state in a general way only the character of the foundation and to present an approximate estimate of the same. The foundation should be of concrete. The depth is given at 4½ feet. For the purpose of approximating to the cost we have taken that depth for the main walls and a depth of 3 feet for the columns, making the top of said foundation two feet wider than the base of the wall. For a length of 60 feet on Mission street and on Seventh street, where the soft material is found, the base of the foundation is increased to 25 feet. It is assumed that the ground can be drained into the street sewer for a depth of about nine feet. The water that may be found in the sand to be extracted by pumping will probably depend upon the season in which the excavation may be done. It is hardly capable of estimate, although we insert an item for the work.

The approximate estimate of the cost of the foundation is as follows: Excavation of 9528 cubic yards of material and disposal of same at 50 cents per cubic yard, \$4764; 3892 cubic yards of concrete at \$7.50, \$29,190; pumping, \$2,000. Total, \$35,944. Contingencies, 10 per cent, \$3,595. Total,