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PAPST CAFÉ. COR. POWELL AND ELLIS STREETS

DE PROSSE & MEUSSDORFFER, ARCHITECTS

CALIFORNIA ARCHITECT AND BUILDING NEWS:
SAN FRANCISCO.

VOL. XVIII. No. 2. FEBRUARY, 1897.

that there is no violation of law on record against said work, and also a water permit from the department of public works. He will then turn on the water and leave everything in perfect working order.

1-MATERIALS, ETC.

EARTHENWARE PIPE

All earthenware pipe herein specified must be hard, smooth, salt glazed, and cylindrical, and not less than three-fourths of an inch in thickness. Each length will be perfectly straight and free from any fire cracks, flaws, blisters, or other defects.

All special fittings to be of the same quality as the pipe.

CAST-IRON PIPE.

All cast-iron pipe and fittings must be sound, cylindrical and smooth, free from cracks, sand holes, and other defects, of a uniform thickness, and of the grade known in commerce as extra heavy. All iron pipe will be firmly secured in position by proper pipe supports placed not more than 5 feet apart. No tar-coated pipe will be used, but after the pipes have been tested and accepted by the inspector they will be coated with —.

The following average weights per linear foot will be accepted:

	Pounds
2 inches.....	5½
3 ".....	9½
4 ".....	13
5 ".....	17
6 ".....	20
7 ".....	27
8 ".....	33½
10 ".....	45
12 ".....	54

All joints in cast-iron pipe will be made with picked oakum and molten lead, and the plumber will make the joints impermeable to gases by bedding the lead with hammer and calking iron. For each joint in cast-iron pipe 12 ounces of lead must be used to each inch of diameter of the pipe in which the joint is made. No putty or cement joints will be permitted. The lead used for calking will be pure, soft pig lead; no old joints or other defective material will be used.

WROUGHT-IRON PIPE

(If any wrought-iron pipe is to be used in the plumbing and drainage of the buildings it should be here specified.)

LEAD-PIPE

All branch lead soil, waste, and vent pipes, including bends, must be of the best quality and of not less than the following weights per linear foot.

Diameter	Weight per foot lbs. ozs.
1½ inches.....	3 8
2 ".....	4
3 ".....	6
4 ".....	8

All connections of lead with iron pipes will be made by heavy brass ferrules of the same size as the lead pipe, set in

the hub of the branch of the iron pipe and calked in with lead, the lead pipe to be attached to the ferrule by a proper solder-wiped joint when practicable. No putty or cement joints will be permitted.

All connections of branch lead pipes will be made by wiped joints.

All lead pipes will be firmly secured in place with hard-metal tacks and screws, placed not more than 3 feet apart, and all horizontal lead pipes will be well supported for their whole length by shelves or carrying strips, to be provided and put up by —.

(Most of the information in these series of articles is culled from the Eight Special Report of the Commissioner of Labor, U. S. A.)

NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS, meets second Friday of each month at 408 California street.
SETH BABSON, Pres. W. P. MOORE, 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.

THEO. A. EISEN, Pres. ARTHUR B. BENTON, Vice-Pres.
WILLIAM C. AIKEN, Sec. AUGUST WACKERBARTH, Treas.

WASHINGTON CHAPTER AMERICAN INSTITUTE OF ARCHITECTS, regular meetings at 8 o'clock P. M., the first Friday of each month, except July and August.

*JOS. C. HORNBLLOWER, Pres. JAS. G. HILL, Vice-Pres.
E. W. DUNN, JR., Sec. W. J. MARSH, Treas.

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

E. J. MOLERA, Pres. W. F. C. HASSON, Vice-Pres.
OTTO VON GELDERN, Sec. EDWARD T. SCHILD, Treas.

MASTER PLUMBERS' ASSOCIATION, meets every first and third Friday of each month at the Flood Building.

JAS. E. BRITT, Pres. J. L. E. FIRMAN, Sec.

BUILDERS' EXCHANGE, Directors meet first Friday in each month at Mission and New Montgomery.

OSCAR LEWIS, Pres. JAS. A. WILSON, Sec.

MASONS' AND BUILDERS' ASSOCIATION, meet first Friday evening of each month.

ADAM BECK, Pres. M. V. BRADY, Sec.

BOOKS AND PERIODICALS.

THIRTEENTH REPORT OF THE STATE MINERALOGIST for the two years ending September 15, 1896. California State Mining Bureau. J. J. Crawford, State Mineralogist.

A very exhaustive well arranged and useful report, reflecting great credit on Mr. Crawford its compiler. It also includes the report of the trustees of the State Mining Bureau and a memorial notice of J. Z. Davis, who died Oct. 28th last and was one of the trustees and a large contributor to the Museum and Library and took a large interest in the success of its Bureau.

The statistical tables and information are very thorough and exhaustive and includes the field assistants' mineralogical reports from every county in the State condensed into concise blocks.

Nineteen thousand five hundred and eight men are now engaged in mining and quarrying in the State while the total value of all mineral products is \$22,844,644.

While gold still continues to be by far our largest mineral product, the annual value of our non-metallic substances has now reached \$1,348,280: hydrocarbons and gasses, \$1,404,321, and structural materials, \$2,713,755. It is worthy of note that in addition to the precious metals there were 36 other mineral substances produced.

The great value of these reports are attested by the demand for copies, which soon depletes the edition—the recommendation of having them stereotyped is a good one. Another recommendation of Mr. Crawford's also deserves attention when he says:

"If possible, this Bureau should be placed upon a permanent basis in regard to funds, the same as the University, etc., in order to produce work of a superior character. As long as it leads an ephemeral life, existing from Legislature to Legislature, it is impossible to undertake certain lines of scientific work that the character of the institution demands, and which might otherwise be stopped, if commenced, through lack of funds."

Besides the Biennial Reports this Bureau issues Bulletins at intervals. During the present Administration the following have been issued: Bulletin No. 2—Mine Timbering by W. H. Storms; No. 3—Gas and Petroleum Yielding formations of the great valley of California by W. L. Watts; No. 4—Catalog of California Fossils by Dr. J. G. Cooper; No. 5—The Cyanide Process, its Practical Application and Economic Results by Dr. A. Scheidel, E. M.; No. 6—Cal. Gold Mill Practice by E. B. Preston, M. E.; No. 7—Mineral Statistics of California for year 1894 by Chas. G. Yale; No. 8—Mineral Productions of California for 1895 by same; No. 9—Mine Drainage, pumps, etc., by Haus C. Behr; No. 10—A Bibliography relating to the Geology, Palaeontology and Mineral Resources of California by Capt. A. W. Vogdes; No. 11—The Oil Yielding Formations of Los Angeles, Santa Barbara and Ventura Counties by W. L. Watts.

In the latter part of this volume will be found original papers of great interest and instruction. The able article on "Compressed Air," by Arthur De Wint Foote, will direct attention to this most important means of transmitting

power, and will enable the student to compare its efficiency and economy with that of electricity.

The value of the article on "Timber Preservation," contributed by John D. Isaacs, Chemist in charge of the Southern Pacific Company's (Pacific System) timber-preserving plants, can hardly be overestimated.

Dr. Salathe's paper will prove a valuable acquisition to the technical literature on the subject of the rapidly growing industry, petroleum. His researches are extensive and have never before been given to the public.

The very excellent article by W. F. C. Hasson, Electrical Engineer, on the several electrical transmission plants in successful operation in this State, together with the numerous illustrations, will prove a valuable addition to this class of literature. It is given in a full, yet concise and practical form, that will be appreciated by business men.

The portion of the report devoted to structural materials is of peculiar interest to architects, engineers and builders—and we shall make liberal excerpts from the same for the benefit of those of our readers who may not be able to get a copy of the full report.

LIPPINCOTTS' MAGAZINE for February, 1897, contains the complete novel "Under the Pacific" by Clarence Herbert New. A very improbable story at the same time very interesting and extremely charming at the end.

The **FORTNIGHTLY REVIEW** for January contains a defence of Cornelius Herz, at one time a resident of this city, from the charge of fraud in connection with the Panama Canal scandal. The writer makes out a very fair showing for Dr. Herz, who appears to have been selected as a scape-goat for those high in authority in France. The fact that after a long detention in England at the request of the French Government no proof being brought forward against him he was allowed to go free confirms the view of the writer that he was unjustly treated by both the French and English Governments.

Proceedings of the **THIRTIETH ANNUAL CONVENTION AMERICAN INSTITUTE OF ARCHITECTS**—Held in the rooms of the Engineering Association of the South, Nashville, Tennessee, Oct. 20th, 21st and 22, 1896. This number contains an engraving of Geo. B. Post, pres., and contains a full report of the proceedings of the convention, which cannot fail to be of interest to the architects all over the country.

SAN FRANCISCO MUNICIPAL REPORT for the fiscal year, 1895-96, ending June 30, 1896, published by order of the Board of Supervisors. This bulky volume contains beside the usual reports of the various city officers, a fine engraving of the New City Hall as well as the portraits of our late Mayor and Supervisors.

If not an interesting document it is certainly a valuable one as a record of what has been done during that year.

SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

THE business of the Chapter at the February meeting was the consideration of a paper by Mr. G. A. Wright, a quantity surveyor, entitled "Bills of Quantities and Their Relation to Contracts," on the many advantages that would result to all concerned, if such a system as outlined in the paper could be introduced.

A number of architects and contractors discussed the pros and cons of the question but the important matter of deciding who would or should pay for the expense of preparing the quantity estimates was not decided, although all present agreed that it would be a great convenience, and save much waste of time to contractors and lessen the chance of errors in estimating. The contractors argued that as they gave their time to estimating on plans for the benefit of the owner, the latter should bear the cost. The architects were positive that the amount of their present compensation was all that could be collected from clients and that it would not be practicable to directly tax them the additional one or two per cent that would be necessary to defray the fees of the quantity surveyor, and the result will be that the present customs will continue till the contractors interested combine for their own benefit, and refuse to estimate on work unless a bill of quantities accompanies the plans.

PAPST CAFE.

THE building which is the subject of our illustrations this month is the newly completed Papst Cafe, located on the north east corner of Powell and Ellis streets.

The building is four stories in height, designed by architects De Prosse & Meussdorffer, and faces the Baldwin Hotel on one corner while diagonally opposite the "Auzeais" on the other.

The architects have planned a very creditable structure, carefully studying the Rococo details which decorate the facades; yet though the ornamentation is elaborate, it is in excellent taste and the danger of overloading the fronts has been skillfully avoided. The entrance on the corner is circular in form, and this plan has been successfully carried up as a dominating motif in the design, terminating in a well proportioned dome.

It is not out of place when a pleasing building has been effectively carried out to give the general public some information as to the individuality of those who have by their exertions carried out the ideals of the designers and made them real and substantial.

It is but just that they should receive some credit for their care and skill, and to those of our readers who are not familiar with the details of the constructive arts, it will be of considerable interest to follow in imagination some of the many and varied trades and arts, craftsmen, and mechanics, who have contributed time and labor, strength and skill, to produce such a modern business structure as we show. Few people outside of those directly employed on the building, fully realize how numerous and varied are the different kinds of labor both skilled and unskilled, that are here brought together. Passing over the great amount of preliminary work done by the architects in preparing the plans, specifications and detail drawings, the first man directly employed is the surveyor, who gives the points, lines and grades establishing the site of the building and its starting

points with relation to the street levels—next in order is the grader with his carts and wagons who excavates for the subterranean portions of this building and prepares the trenches for the foundation walls—then comes the Master Mason, in this instance J. Ferd Wagner of 154 Clara Ave., who lays out the work and instructs his assistants how to most economically handle the men and dispose of the materials, seeing the bricks are neither too wet nor too dry, but just moist enough to obtain the proper adhesion of the mortar, too much moisture in the brick preventing suction, and too little absorbing the water in the mortar too rapidly; but our Master Mason is in this case an experienced man and all goes smoothly. Once the walls are up to the line of the street another man takes temporary charge.

CARPENTER WORK.

Ranking in importance with the brick work comes the carpenter work, in this case carried out under the direction and control of C. Schutt, of 13 Shotwell street, an experienced mechanic who has contributed his full share towards the successful completion of the building, and who takes a just pride in the work-man-like manner in which his men turn out their work.

Mr. Schutt has well earned the respect to which his many good qualities entitles him, by his care and attention to all work entrusted to his supervision, and he has as a necessary consequence always been able to keep busy in spite of any hard times. He is at present engaged in fitting up the elaborate and elegant interior of the Oberon, which the public have the pleasure of inspecting.

PLUMBING WORK.

The next trade on the long list is that of the plumber, combining the two traits of utility and beauty; filling the walls and floors of the building with a complicated net work of pipes for supply water and gas throughout the building and conducting the waste from the building—and beautifying the utilities with tiling and toilet fixtures such as were never dreamed of by the ancients. H. Williamson of 413 Sutter street, was chosen to do this work, and no one is more competent than he to carry out this particular work, his practical experience having been acquired by years of hard persistent work. He has at his command a staff of skilled assistants who from long familiarity with the best class of work are able to execute Mr. Williamson's orders to do the work as it should be done.

SHEET METAL AND CORNICE WORK.

The sheet metal and cornice work was performed by W. Hite of 224-226 Mission street, in a manner that commends itself to the observer for the neatness and finish, adding to the attractive appearance of the building at the same time it protects it from the elements.

PLASTERING WORK.

Mr. W. C. Watson of 40 New Montgomery street, did the plastering.

DECORATION WORK.

In all the various industries that have thus far been described, usefulness has entered largely into the results accomplished. Yet in our modern life we are learning more and more of the refining influences of beauty in form and

color and the building on which so much thought and care and time and money has been expended yet lacks the finishing touches.

But here comes in our decorator Mr. E. A. Otto of room 81 St. Ann's Building, who gives completeness to whole by copying the splendors of Aladdin's palace for the enjoyment of the patrons of this modern counterpart in the city by the Golden Gate which is rapidly becoming a Metropolis second to none, where art, science and industry will flourish, growing with the needs of its people, learning by its own and its neighbors experience to solve the complicated questions of modern society, till work is justly apportioned to all, and its results as justly divided by all.

ART GLASS.

The beautiful Art Glass in Ladies and Gents Cafe was made and furnished by the well known California Art Glass Works, 103-105 Mission street. The interior finish in the ladies department being in the Rococo style, the windows and ceiling light were made in glass to harmonize, while the gents department is in the German Renaissance to conform with decoration of the same. It is unnecessary for us to eulogize the product of the firm mentioned above, as this work again proves that their reputation for first-class work is well earned.

HEATING.

The heating of this entire building is accomplished by a low pressure steam plant, being installed in the building by J. G. Grannis & Co., the well known firm of heating and ventilating engineers, 544 Mission street, and consists of some one hundred radiators and one horizontal sectional steam boiler manufactured by The Novelty Iron Company of Canton, Ohio, with all of the latest automatic improvements and with the complete and scientifically arranged pipe system this plant is a perfect success and but another evidence of the firms great ability in their special line.

VENTILATION.

The ventilation of the first floor and basement is done by the well known method of exhausting the air. Galvanized sheet iron pipes are run from the various rooms and corridors to the light well over the kitchen, where they are connected to one large pipe, 24" diameter, which extends 10 ft. above the roof. The exhausting fan, which is of the wind-mill or disc pattern, is placed on top of this large pipe and connected to an electric motor, placed on a platform on the roof and housed to keep off the rain. The rheostat for starting the motor is placed in the kitchen, thus giving control of the fan and motor on the roof from the first floor.

The fan revolves at a speed of 400 revolutions per minute and exhausts 10,000 cubic feet of air per minute. This changes the air in the Gentlemen's Cafe, Ladies Cafe, Banquet Hall and Corridor four times an hour. In the kitchen the air is changed every five minutes, thus keeping the building free from smoke and smell from the kitchen. This method of ventilating has been placed in several cafes and restaurants in San Francisco with uniform success.

This work is being done by the George H. Tay Co., of 610-620 Battery street.

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.

CONSIDERATION IN BUILDING CONTRACT.—A building contractor having defaulted before completion of the work, and having permitted liens to accrue against the property in violation of his bond, the contract was assigned to his sureties, and the balance of the price paid to them, on their agreement to finish the work and discharge the liens to an amount not to exceed the amount of the bond plus the amount paid them on the contract. The court held that such agreement was valid and was supported by a sufficient consideration.

McHenry v. Brown, Supreme Ct. Minn., 88 Northwestern Rep. 847.

LIQUIDATED DAMAGES AND PENALTIES.—Where a contractor binds himself in a fixed sum for the performance of the contract, without stating whether such sum is intended as a penalty or as liquidated damages, and without regard to the magnitude or the number of breaches that may occur, or the amount of damages that may issue, and the contract is such that it may be partially performed and partially violated, the sum as fixed is a penalty.

City of El Reno v. Cullinane, Supreme Ct. Okl., 46 Pacific Reporter, 510.

WHEN CONTRACTOR IS NOT LIABLE.—A workman on a building, who fell and was injured by reason of stepping upon a joist which had just been sawn nearly through by another workman, who had momentarily left it, cannot recover from his employer for such injury, on the ground that he should have been notified of the danger.

McCann v. Kennedy, Sup. Ct. Mass., 44 N. E. Reporter, 1055.

WHAT IS NOT NOTICE TO OWNER.—The fact that a subcontractor is working on a house does not constitute notice to the owner not to pay the contractor, under the law entitling a subcontractor to lien upon notice to the owner.

Clark v. Edwards, Supreme Ct. N. C., 25 S. E. Reporter, 794.

NEGLIGENCE IN BUILDING OPERATIONS.—One who extends an excavation on his lot into the sidewalk of a public street, without properly guarding same or taking any means to warn the public of the danger, is liable for injury to a passer-by who falls into the pit while in the exercise of ordinary care.

Berebers v. Calvin, Ct. Civ. App. Tex., 37 S. W. Rep. 178.

LIABILITY ON CONTRACTORS' BOND.—Where a building contract, based on plans and specifications made a part thereof, provided that the contractor should make any alterations or additions required by the owner, the price to be subject to addition or deduction for same, as might be agreed upon, the sureties on the contractor's bond cannot defend against liability because the owner in completing the building after its abandonment by the contractor, as was authorized by the contract, deviated from the specifications, nor because changes were made before the abandonment with the assent of the contractor.

De Mattes v. Jordan, Supreme Ct. Washington, 40 Pacific Rep. 402.

BUSINESS MOSAICS.

The John Douglas Co. of Cincinnati, Chicago, Philadelphia and San Francisco are the manufacturers of an absolutely noiseless tank for water closets, as well of a superior quality of seats and crockery in this line of goods. Their show room, 208 Ellis street, San Francisco, under the management of Edward Douglas, is well worth a visit from those interested in building.

Poet to editor.—I send you a poem, "Why Do I Live?" Please answer. **EDITOR.**—Because you send your poem by mail.—*Texas Shiftings.*

Cabot's Anti-Pyre, a wonderfully cheap and effective fire-proof paint for interior work, is being handled in this city by Mr. Charles J. Waterhouse, 640 Mission street, general agent for the Cabot Specialties. Used on the interior wood work of factories, warehouses, car-sheds, work-rooms and all places subject to fire risk, it makes the wood non-inflammable, greatly increases the light by the reflecting power of its brilliant white, and is cheaper in the end than whitewash.

"I have cured Bliggins of his horrible superstition at last," the philanthropist exclaimed. "How did you manage it?" "I offered to lend him \$13."—*Washington Star.*

San Francisco Lumber Co., wholesale and retail dealers, foot of Third street, with yards also at Channel St., bet. 4th and 5th streets, is a good place to buy lumber. Uptown office for orders, 405 Montgomery street, J. N. Curtis, manager.

Parson to youngster fishing on Sunday—My boy, I'm surprised to find you here. **YOUNGSTER** innocently—Do you know some other place where they bite better?—*Up-to-Date.*

Stevens' Patent Chimney, endorsed by architects and builders and approved by the fire wardens is advertised on page iii of this journal; every thing from chimney tops to flower pots can be obtained from F. M. Stevens cor. Larkin and Market street, San Francisco.

She—You wife reminds me a great deal of my sister who is in Australia. **HE**—She reminds me a great deal of her first husband, who is Lord knows where.—*Pick-me-up.*

We doubt, if you spend ten thousand dollars for a bath, as it is said one of the Van Ness avenue residences is about to be embellished with, you can have a better bath than can be obtained by applying to S. M. James for one of his Imperial Porcelain Roll Rim Bath Tubs—manufactured by The J. L. Mott Iron Works, see cut on page v of this journal—call at room 27 Flood Building and be convinced of the truth of this assertion.

She—Did you tell Fibs of our engagement? **HE**—Yes. **SHE** (aggrieved)—You promised that you would say nothing about it. **HE**—It's perfectly safe with Fibs; no one ever believes him.—*Washington Times.*

Keathing & Leonard are doing business at their new office in the Hobart Building, 532 Market street, everything in the way of cement work, where twisted iron is required, is right in their line. Work by this firm can be depended upon as being just what is represented.

She—You should see my swell fellow, Fanny. **FANNY** (enviously)—Your never had a swell fellow. **SHE**—Yes I have, he's very swell, he's got the dropsy.

The Pacific American Decorating Company, manufacture stained and art glass—this offers a good opportunity to have your house decorated with landscapes, marine views, to say nothing of having your favorite dog and horse reproduced in your study window—26 O'Farrell street, room 3; 19 Fremont street and 1213 and 1215 Howard street are the places to go if you want the work done.

"The duke's marriage to the American was a bitter pill for his family to swallow." "That is the way with medicine for improvised blood."—*Detroit Tribune.*

Bradley Bros. manufacture a cement tray such as every good house wife wants to have, it is of the best Portland cement and guaranteed not to leak, crack or sweat. Office and factory 53-57 Tehama street.

Geo. Rischmuller, 320 Nineteenth St., San Francisco, make the door opener and closer that answers the purpose to perfection. See advertisement on page iv of this journal where its claim of being just what you want is fully explained.

CITY BUILDING NEWS.

Bartlett near 2nd. Two-story frame; owner, John J. Janssen; architects, Martens & Coffey; contractor, J. Tucker; signed, Jan. 29; filed, Jan. 30; cost \$3040.

Braman near 7th. Frame building for barn; owner, H. P. Smith; contractors, Miller & Endrickson; cost \$1725.

Bush near Mason. Three-story frame; owner, Harris Samuels; architect, C. A. Meussdorffer; contractors, A. Cacchi and John Pecavich; signed, Feb. 10; filed, Feb. 11; cost \$5710.

Dupont near Vallejo. Excavation, etc., for two-story brick; owners, Maccono & Rosso; architect, Frank S. Van Trees; contractor, J. Byron; cost \$1450.

Dupont street. Two-story brick building and basement; owner, Isidore Merle; architect, Frank S. Van Trees; contractors, Maccono & Rosso; signed, Jan. 23; filed, Jan. 24; cost \$2365.

Fell near Ashbury. Two-story frame; owner, Mrs. Bertha Bamberger; architects, Shea & Shea; contractor, J. W. Coburn; signed, Feb. 1; filed, Feb. 5; cost \$1040.

Fillmore near Filbert. One-story brick; owner, Mary McCarty; architects, Shea & Shea; contractor, Neil Malloy; signed, Jan. 19; filed, Jan. 22; cost \$2275.

Geary and Stockton. Work on six-story brick, flooring, etc.; owner, Spring Valley Water Works; architect, Clinton Day; contractor, S. H. Kent; signed, Jan. 22; filed, Feb. 8; cost \$8020. The same contractor, for work on 3rd, 4th and 5th stories; cost \$25,515.90. Plumbing, etc.; contractor, Eckelheimer & Bro.; cost \$4800. All work above 2d story; contractor, S. H. Kent; cost \$12,307.

Geary near Powell. Concrete and artificial stone for five-story brick; owner, A. Aronson; architect, C. R. Wilson; contractor, J. Leonard; signed, Dec. 26; filed, Jan. 22; cost \$5750. Cast iron work; contractor, The Alton Iron Works; cost \$3000. Wrought iron work and steel beams; contractor, Judson Mfg. Co.; cost \$2350.

Geary and Williams. Excavation, brick and iron work for four-story brick; owner, Grace Armont; architect, C. R. Wilson; contractor, Robert Boyd; signed, Jan. 23; filed, Jan. 25; cost \$4888. Plumbing; contractors, Burwick & Spinks; cost \$1200. Tin work, etc., T. J. Guilfoyle; cost \$1194.

Geary and Williams. Carpenter and stair work for four-story brick; owner, Grace Armont; architect, C. R. Wilson; contractors, Hawkins & Lindsey; signed, Jan. 23; filed, Jan. 25; cost \$3500.

Green near Leavenworth. One-story frame; owner, A. Trueworthy; architect, M. G. Bugher; contractor, E. J. Brennan; signed, Jan. 25; filed, Jan. 26; cost \$988.

Hartford street. One-story frame; owner, G. F. Vella; contractor, John Flaherty; signed, June 22; filed, Jan. 23; cost \$1380.

Hayes near Scott. To build; owner, F. W. Keuerleber; contractor, J. J. Mausau; signed, Feb. 5; filed, Feb. 9; cost \$9115.

Howard near 8th. Three-story brick; owner, M. Numan; contractor, for mason work, J. Hagavan. Galvanized iron work; contractor, J. Guilfoyle; cost \$30,000.

Hyde near Golden Gate Ave. To build; owner, G. W. Rook; architects, Townsend & Wycken; contractors, Holm & Shebley; signed, Jan. 30; filed, Jan. 31; cost \$1510.

Lot 13 block 47 Sunnyside. Two-story frame; owner, Ann Towns; architect, H. D. Mitchell; contractors, John Barrett & D. McGrath; signed, Jan. 25; filed, Jan. 27; cost \$1885.

Lyon near Grove. To build; owner, H. W. Stokes; contractors, Bailey & Muller; signed, Jan. 13; filed, Jan. 30; cost \$2500.

Market and Third. Interior tile finish, etc.; owner, Claus Spreckels; architects, Reid Bros.; contractors, cladding, McBean & Co.; signed, Jan. 7; filed, Jan. 23; cost \$17,115.

Market and Third. Concrete flooring, metal lath ceiling; owner, Claus Spreckels; architects, Reid Bros.; contractors, Gray Bros.; signed, Jan. 6; filed, Jan. 23; cost \$16,715.

Market and Third. Rough carpenter work; owner, Claus Spreckels; architects, Reid Bros.; contractors, Thomas Day & Son; signed, Jan. 23; filed, Feb. 1; cost \$5530.

Masonic Ave. near Frederick. Two-story frame; owner, Wm. T. Martin; architects, Shea & Shea; contractor, J. A. M. Donald; signed, Feb. 10; filed, Feb. 12; cost \$2395.

Masonic Ave. near Frederick. To build; owner, Carl Griesse and wife; architect, Carl Griesse; contractor, A. G. Johnson; signed, Feb. 9; filed, Feb. 10; cost \$1275.

Masonic Ave. near Waller. Two-story frame; owner, Lyman D. Foster; architect, W. H. Lillie; contractor, Isaac Penny; filed, Jan. 20; cost \$2345.

McAllister near Devisadero. Two-story frame; owner, Evelyn G. Graney; architect, Phillip Rive; signed, Jan. 28; filed, Feb. 18; cost \$5250.

Montgomery near Sutter. Alterations and additions; owner, Alexander D. Keyes; architects, Shea & Shea; contractor, P. Griffin; signed, Jan. 18; filed, Jan. 20; cost \$4497.

Nineteenth and Minnesota. Three-story frame; owner, P. Cronin; architect, M. J. Welsh; contractor, C. J. Antwiler; signed, Jan. 28; filed, Jan. 28; cost \$2415.

Oak near Ashbury. To build; owner, Leon J. Hirth; architect, E. Deperre; contractors, Maccono & Rosso; signed, Jan. 20; filed, Feb. 1; cost \$3400.

Pierce and Greenwich. Two-story frame; owner, F. G. Eichorst; architect, C. A. Meussdorffer; contractors, Stevens & Foster; signed, Feb. 1; filed, Feb. 4; cost \$1840.

Sacramento and Scott. Two-story brick; owners, F. W. and Sarah Marion; architect, C. A. Robertson; contractor, Wm. Bell; filed, Feb. 1; cost \$3000.

Sacramento near Buchanan. Alterations and additions; owner, Phoebe Lowenthal; architects, Saffield & Kohlberg; contractors, C. D. Dean & Co.; signed, Feb. 9; filed, Feb. 9; cost \$1415.

Second Ave. near Lake. Cottage; owner, Richards Trevers; architect, Richard Trevers; contractor, W. P. Kenney; cost \$1045.

Sixth Ave. near California. Cottage; owner, Margaret Whittman; contractor, L. C. Bergren; signed, Jan. 19; filed, Jan. 23; cost \$1358.25.

Seventeenth near Sanchez. To build; owner, Richard O'Connor; contractor, T. C. Cochran; cost \$2775.

Sutter and Hyde. Wrought iron grill work for six-story brick; owner, Dr. Julius Rosenstern; architects, Saffield & Kohlberg; contractor, Richard Lutz; signed, Dec. 24; filed, Jan. 28; cost \$1648.

Sutter near Larkin. Three-story frame, carpenter work; owner, Dr. Henry Kretzmann; architect, Oscar Haupt; contractor, Henry Jacks; signed, Jan. 20; filed, Jan. 30; cost \$7508. Painting; contractor, J. E. Sullivan; cost \$775. Plumbing; contractor, E. J. Duffy; cost \$920. Plumbing; contractor, E. J. Duffy; cost \$920. Electric work; contractor, California Electric Work; cost \$236.

Twenty-first near Folsom. Two-story frame; owner, H. Bullwinkle; architect, Henry Geilfuss; contractors, Horstmeier; signed, Feb. 3; filed, Feb. 4; cost \$2700.

Twenty-fourth near Noe. Additions; owner, Anne Drolette; contractors, A. De Lair and D. T. Francoeur; cost \$1400.

Twenty-seventh near Dolores. Cottage; owner, Alfred Ross; architect, C. M. Rousseau; signed, Feb. 4; filed, Feb. 5; cost \$1400.

Waller and Schrader. Cottage; owner, Mrs. Carrie Driscoll; architect, Wm. Koenig; contractor, Ira W. Coburn; signed, Jan. 21; filed, Jan. 23; cost \$1500.

The California Architect and Building News.

OFFICE, 408 CALIFORNIA STREET,

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

VOLUME XVIII.

MARCH 20th, 1897.

NUMBER 3

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 EIGHTEENTH YEAR.

OLIVER EVERETT, Secretary.

ADVERTISING RATES:

Space	1 Month.	3 Months.	6 Months.	12 Months.
1 inch.....	\$ 1.00	\$ 3.00	\$ 5.50	\$ 10.00
2 inch.....	2.00	6.00	11.00	20.00
3 inch.....	3.00	9.00	16.50	30.00
4 inch.....	4.00	12.00	22.00	40.00
5 inch.....	5.00	15.00	27.50	50.00
6 inch.....	6.00	18.00	33.00	60.00
7 inch.....	7.00	21.00	38.50	70.00
8 inch.....	8.00	24.00	44.00	80.00
9 inch.....	9.00	27.00	49.50	90.00
10 inch.....	10.00	30.00	55.00	100.00
11 inch.....	11.00	33.00	60.50	110.00
12 inch.....	12.00	36.00	66.00	120.00
13 inch.....	13.00	39.00	71.50	130.00
14 inch.....	14.00	42.00	77.00	140.00
15 inch.....	15.00	45.00	82.50	150.00
16 inch.....	16.00	48.00	88.00	160.00
17 inch.....	17.00	51.00	93.50	170.00
18 inch.....	18.00	54.00	99.00	180.00
19 inch.....	19.00	57.00	104.50	190.00
20 inch.....	20.00	60.00	110.00	200.00
21 inch.....	21.00	63.00	115.50	210.00
22 inch.....	22.00	66.00	121.00	220.00
23 inch.....	23.00	69.00	126.50	230.00
24 inch.....	24.00	72.00	132.00	240.00
25 inch.....	25.00	75.00	137.50	250.00
26 inch.....	26.00	78.00	143.00	260.00
27 inch.....	27.00	81.00	148.50	270.00
28 inch.....	28.00	84.00	154.00	280.00
29 inch.....	29.00	87.00	159.50	290.00
30 inch.....	30.00	90.00	165.00	300.00

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.



THE San Francisco Call has lately been stirring up the public bodies of this city to take united action in protesting against further delays in beginning work on a new post office building for this city that was authorized by Congress over a decade ago. We sincerely commiserate our daily press if they really think that any efforts, however herculean, will have any effect in piercing the invulnerable hide of official indifference to the needs of San Francisco, for we are morally certain that they will have but their labor for their pains. True, plans have been prepared for such a building. In fact the office of the Supervising Architect has been preparing plans for several years; the ones now under consideration being the third set we believe, and apparently we are no nearer a satisfactory solution than at first. Several experts and engineers have already examined and reported on the site selected with special reference to its suitability to sustain a modern brick structure. We notice in the last official report of the Supervising Architect, however, that "The United States Engineer Corps has been requested to submit further information in regard to foundations, and it is expected that this office will be fully advised in regard

thereto at an early day." The report does not specify any grounds on which to base its expectations for an early report, and in the light of past experience, we confess to some degree of scepticism in regard to the expeditious methods of public officials. But if our generation no longer hopes or expects to see the work begun, future generations will have the pleasures of anticipating the day when ground will be broken for the new building.

The following information as to the acts of Congress authorizing the Post-Office may be of interest to our readers:

An Act of Congress of March 3d, 1887, appropriated for cost of site and building, \$350,000.

An Act dated January 21, 1889 extended the limit of cost of site for building to \$800,000.

Other Acts were passed modifying the cost of the site and building and an Act of March 3, 1893, extended the limit of cost of building exclusive of site to \$2,500,000.

There has been appropriated to date \$1,300,000.

Of this amount there has been expended on site and incidental expenses \$1,090,268.

Leaving the amount actually available for beginning work at this date \$209,732.

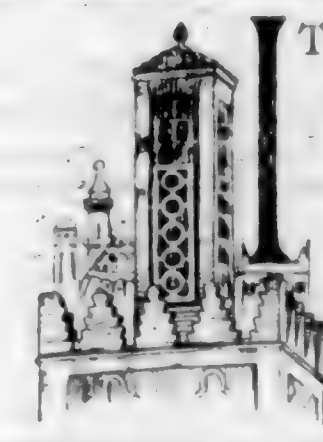


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It is a mistake to suppose that man was created for hard labor—to earn one's bread by the sweat of one's brow was a truism in the primitive days of no machinery but now the truism of those days is the untruth of these latter days, and there needs no eight or ten hours work day.

The crass ignorance of economics exhibited by our most respected citizens is wonderful. Here in San Francisco we have men supposed to be charitable offering work on a boulevard for the improvement of the city and the increasing of the value of its real estate at one dollar for a day of not less than eight hours. This is absurd. Cannot they see that in these days when machinery does almost all the work that is to be done, this is altogether too long for any man to work at hard labor except he be a criminal, to whom it may be all right as a tonic.



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We will not go into the question of relative strength further, but that apart, it appears the Board of Examiners refuse to give any reason for rejecting this material—an arbitrary action of a public body which is unseemly. Looking at the construction of this tribunal we find it composed of:

Superintendent Building Department, Chairman; Napoleon Le Brun, from the New York Chapter of the American Institute of Architects; two members from the Mechanics' and Traders' Exchange; one from the Real Estate Exchange, the Architectural Iron Association, the Builders' Association, the Underwriters' Association and the Chief of the Fire Department.

These have irresponsible power and in this case appear to have exceeded those powers; but there seems to be no tribunal that is competent to decide how far those powers shall extend. The matters upon which the Board have to decide are scientific matters and the connection between technical matters of this kind and trades and Real Estate Exchanges or even the Architectural Iron Association appears to be rather remote, and yet we find two members from the mechanics and Trades Exchange one from the Real Estate Exchange and one from the Architectural Iron Association. In our opinion, an architect selected by the builders (who are the class who come in contact with them most) and civil engineers, would fill the bill in better shape than those mentioned above as unsuitable. It is their business to know about these things and are therefore those likely to know most about them. The Board evidently wants reviewing, and may be looked upon by other cities as a Board whose composition must be avoided.

BILLS OF QUANTITIES AND THEIR RELATION TO BUILDING CONTRACTS.

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MR. PRESIDENT AND GENTLEMEN:—I have been honored with an invitation from your honorable Chapter to say something to-day upon the subject of "Bills of Quantities and their Relation Generally to Building Contracts."

The field is a wide one, embracing I think, some points of interest to each of us who are in any way identified with estimating the cost of modern buildings.

With your permission, and whilst fully appreciating the importance, or shall I say the absolute necessity for the,

young architect of to-day as well as for the contractor, to receive some training in estimating Q's,* as well as in estimating cost, I propose to consider the subject largely from an estimators standpoint.

During my experience—first as an architect, and subsequently as a Q. S.† in fairly active practice—it has fallen to my lot, to have had many opportunities of judging of the value and advantages attending the use of Q's and the effect of the Q. Sy.‡ upon the owner, the contractor, the architect, and incidentally upon the character and quality of the work executed.

I shall endeavor to lay before you some conclusions I have arrived at, and if my efforts simply have the effect of fostering the growing desire for some improvement in the estimating methods of to-day; or of promoting a friendly interchange of thoughts upon the subject, our time will not, I think, have been unprofitably spent.

By way of introduction I may be allowed to say that some six years ago I was privileged to be present at a meeting of this honorable Chapter and in the course of a short address upon that occasion; I made some observations regarding the system of taking bids upon surveyors Q's and I afterwards brought the same subject before the notice of the Builders' Association, then on Pine street.

Some attempt had already been made by one or two local architects, and also by a Q. S. who had preceded me—to create some interest in this subject—but little progress however had been made—and I found but few who were acquainted with even the first principles of the "system", and I was not slow to realize how unreasonable it was to expect gentlemen to look kindly upon an estimating system, which to them, as a body, was at that time, something new.

In additions to this, I was then myself somewhat handicapped by want of acquaintance with local methods. To-day however gentlemen, the conditions are changed.

On the one hand, a desire for some improvement in the manner of estimating for work, does occasionally manifest itself and on the other hand, I also, have gained some experience, having made up estimates—some millions of dollars worth probably—for contractors and others in this city, and so to-day gentlemen, I say the conditions existing when I addressed you before, are somewhat changed, and I am free to admit, and I do so most willingly, that an elaborated system of Quantities, would scarcely be adapted, certainly, for some time to come to our San Francisco requirements. But, (and I say this with every respect for the views of gentlemen who may not altogether agree with me.) But I am equally certain that there is a great dead of room for improvement in our estimating methods of to-day. They are largely primitive and *unreliable*—rule of thumb often prevails, whilst the element of guess-work is not entirely unknown—all of which is, I submit contrary to, and out of keeping with that spirit of advancement which you as architects, have been advocating so long, and which you are happily, still promoting, in the matter of improved design and construction.

Now let us proceed to consider the effects of the Q. S. Let us analyze its application to a large building, say of brick, stone and steel construction.

As the owners agent it would under the Q. Sy. devolve upon the architect to choose a S. as soon as the owners instructions to obtain bids were received. He must not be

appointed by either of the financially interested parties, the owner or the contractor.

When wisely selected he should occupy an independent, disinterested position, possessing of course the necessary technical and practical ability, and having the confidence of those, liable to be effected by his Q's.

He should never be in the regular employ of any one person, his services being engaged by "Architects," on behalf of their clients and *only* as occasion requires, and for the specific work and purpose indicated.

It has recently been suggested to me that a dishonest surveyor might favor, or in some way give an advantage to some particular contractor. I deal with this point first as it seems uppermost in the minds of some, indeed it seems to be about their only objection to such a system—that dread of trickery.

Gentlemen—The only answer it is possible to give is this: No surveyor possessing any self respect, and in his natural senses, would jeopardize his living, and invite professional ruin, by placing himself at the mercy of an unscrupulous contractor; *for*, would it not be only such, who would attempt to benefit (even if such a thing were possible) for "detection" would be the easiest thing possible by such means?

But to return—The surveyor having been selected, the drawings, specifications and conditions of contract, are handed to him by the architect. From these he prepares in his own private office, a complete schedule or B of Q's containing a detailed, itemized, and classified list of every item of labor and material required in the building, everything in fact which has a money value, however small, and this is done, whether everything is described with extreme minuteness in the specification, or *not*.

It is well known that occasionally some little oversight, on the part of an architect's clerk, *will creep in somewhere*, (however careful he may be) and is it not a fact that a certain class of contractors, are apt to distort trivial occurrences of this nature into an excuse to try for some extra allowance or concession thereby. Now all such points as I have reference to, would not escape the surveyor, that is a part of his business; to see that no possible opportunity for misunderstanding shall exist, if it does, the attention of the architect is drawn to the matter and the necessary adjustment is made *before the contractor ever sees the drawings*.

The Q's being completed, printed copies are sent to those contractors invited to bid; the drawings and other documents are returned to the architect and the surveyor's duties are at an *end*.

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Although not always done, I advocated making the Bill of Quantities the basis of and part of the contract, in other words, a certain definite quantity of work for a certain fixed sum of money. The specifications too, need not be so voluminous as they sometimes are. The custom is for the lowest bidder to deposit with the architect, prior to the acceptance of a bid, a copy of his original figures in *ink* and a spare blank copy of the Q's is usually reserved for this purpose free of expense. The architect satisfies himself that this copy has been filled up and totalled in proper form, and

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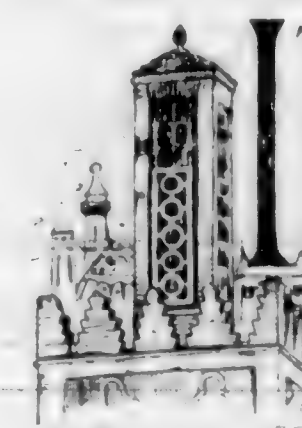
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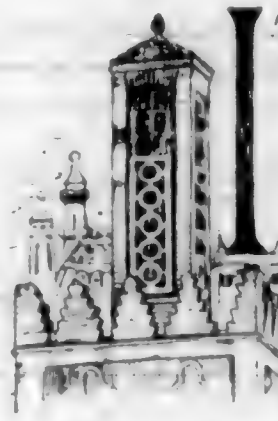


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young architect of to-day as well as for the contractor, to receive some training in estimating Q's,* as well as in estimating cost, I propose to consider the subject largely from an estimators standpoint.

During my experience—first as an architect, and subsequently as a Q. S.† in fairly active practice—it has fallen to my lot, to have had many opportunities of judging of the value and advantages attending the use of Q's and the effect of the Q. Sy.‡ upon the owner, the contractor, the architect, and incidentally upon the character and quality of the work executed.

I shall endeavor to lay before you some conclusions I have arrived at, and if my efforts simply have the effect of fostering the growing desire for some improvement in the estimating methods of to-day, or of promoting a friendly interchange of thoughts upon the subject, our time will not, I think, have been unprofitably spent.

By way of introduction I may be allowed to say that some six years ago I was privileged to be present at a meeting of this honorable Chapter and in the course of a short address upon that occasion; I made some observations regarding the system of taking bids upon surveyors Q's and I afterwards brought the same subject before the notice of the Builders' Association, then on Pine street.

Some attempt had already been made by one or two local architects, and also by a Q. S. who had preceded me—to create some interest in this subject—but little progress however had been made—and I found but few who were acquainted with even the first principles of the "system", and I was not slow to realize how unreasonable it was to expect gentlemen to look kindly upon an estimating system, which to them, as a body, was at that time, something new.

In addition to this, I was then myself somewhat handicapped by want of acquaintance with local methods. To-day however gentlemen, the conditions are changed.

On the one hand, a desire for some improvement in the manner of estimating for work, does occasionally manifest itself and on the other hand, I also, have gained some experience, having made up estimates—some millions of dollars worth probably—for contractors and others in this city, and so to-day gentlemen, I say the conditions existing when I addressed you before, are somewhat changed, and I am free to admit, and I do so most willingly, that an elaborated system of Quantities, would scarcely be adapted, certainly, for some time to come to our San Francisco requirements. But, (and I say this with every respect for the views of gentlemen who may not altogether agree with me.) But I am equally certain that there is a great dead of room for improvement in our estimating methods of to-day. They are largely primitive and unreliable—rule of thumb often prevails, whilst the element of guess-work is not entirely unknown—all of which is, I submit contrary to, and out of keeping with that spirit of advancement which you as architects, have been advocating so long, and which you are happily, still promoting, in the matter of improved design and construction.

Now let us proceed to consider the effects of the Q. S. Let us analyze its application to a large building, say of brick, stone and steel construction.

As the owners agent it would under the Q. Sy. devolve upon the architect to choose a S. as soon as the owners instructions to obtain bids were received. He must not be

appointed by either of the financially interested parties, the owner or the contractor.

When wisely selected he should occupy an independent, disinterested position, possessing of course the necessary technical and practical ability, and having the confidence of those, liable to be effected by his Q's.

He should never be in the regular employ of any one person, his services being engaged by "Architects," on behalf of their clients and only as occasion requires, and for the specific work and purpose indicated.

It has recently been suggested to me that a dishonest surveyor might favor, or in some way give an advantage to some particular contractor. I deal with this point first as it seems uppermost in the minds of some, indeed it seems to be about their only objection to such a system—that dread of trickery.

Gentlemen—The only answer it is possible to give is this: No surveyor possessing any self respect, and in his natural senses, would jeopardize his living, and invite professional ruin, by placing himself at the mercy of an unscrupulous contractor; for, would it not be only such, who would attempt to benefit (even if such a thing were possible) for "detection" would be the easiest thing possible by such means?

But to return—The surveyor having been selected, the drawings, specifications and conditions of contract, are handed to him by the architect. From these he prepares in his own private office, a complete schedule or B of Q's containing a detailed, itemized, and classified list of every item of labor and material required in the building, everything in fact which has a money value, however small, and this is done, whether everything is described with extreme minuteness in the specification, or not.

It is well known that occasionally some little oversight, on the part of an architect's clerk, will creep in somewhere, (however careful he may be) and is it not a fact that a certain class of contractors, are apt to distort trivial occurrences of this nature into an excuse to try for some extra allowance or concession thereby. Now all such points as I have reference to, would not escape the surveyor, that is a part of his business; to see that no possible opportunity for misunderstanding shall exist, if it does, the attention of the architect is drawn to the matter and the necessary adjustment is made before the contractor ever sees the drawings.

The Q's being completed, printed copies are sent to those contractors invited to bid; the drawings and other documents are returned to the architect and the surveyor's duties are at an end.

His business is solely to calculate Q's, fairly and honestly between owner and contractor. He has not the slightest further interest in the job (beyond receiving his fee) cares not how much it costs, nor who gets the contract, nor is he interested in what kind of materials are used, where they are ordered, or what they cost. Such things are outside his province entirely. He devotes himself exclusively to the accurate computations of "Quantities."

Although not always done, I advocated making the Bill of Quantities the basis of and part of the contract, in other words, a certain definite quantity of work for a certain fixed sum of money. The specifications too, need not be so voluminous as they sometimes are. The custom is for the lowest bidder to deposit with the architect, prior to the acceptance of a bid, a copy of his original figures in ink and a spare blank copy of the Q's is usually reserved for this purpose free of expense. The architect satisfies himself that this copy has been filled up and totalled in proper form, and

* Quantities.
† Quantity Surveyor.
‡ Quantity System.

and that the sum total corresponds with the contract amount, the document is then sealed up in the presence of the contractor and filed away for safe keeping, to the importance of which I shall refer to later on.

The unsuccessful bidders retain their copies of the Q's, and being priced in detail, they are frequently of use, as a means of reference, and form interesting data to the contractor when determining his percentage of profits on future bids.

Surveyor's Q's are sufficiently explicit, as to make it unnecessary for the bidders to closely examine the drawings and specifications whilst bidding, this is a saving of time to them, and architects' time would not be occupied in making explanations, and answering questions to bidders. The quantities would explain, in black and white, everything that is right and proper for the bidders to know.

Occasionally we hear of a lowest bidder, wishing to withdraw his bid, or endeavoring to get the amount of it increased, on the grounds of having made a "mistake", forgotten to include his painters bid or his glass or some other thing, but with the Q. S. such a thing would be an impossibility; for everything would be there, in detail. If "money" mistakes were alleged, than by a reference to the priced Q's, the architect could immediately see whether the mistake was a genuine one or not. Gentlemen, I don't think you would ever hear of a mistake in a bid under that system.

I am sometimes asked, well, what is a proper B of Q as used under the Q. S.? In localities where this method of estimating prevails, a B of Q is expected to be what some owners think an architect ought to be. "Everything under the sun," and this is just what a B of Q should be, in relation to the contract, a veritable "enquire within for everything." I cannot do better perhaps than quote very briefly for a few moments from an article of mine which appeared recently in the *American Architect* of Boston:

The document should be a printed list so that every copy should be an exact counterpart of each other, the same as blue prints are of drawings. It should contain as I say every item of work in the building, however small. On the title page should appear the name or description of the building, the owners and architects names and addresses, place, date and hour for receiving bids, date for completion, and under the heading of preliminary, the penalty for non-completion, conditions of payment, particulars as to sureties, certified checks, and so forth, and the bill should bear the endorsement of the surveyor who prepared it.

Again, when practising as a Q. S. I found it a good plan to commence with such items as cannot be measured in the usual sense, but for which some allowance should be made for example, plant, foreman, superintendent's office, drainage, insurance, lighting, watchman, interest or retention money, pumping or keeping foundation dry; maintenance, accidents to workmen, water, temporary plumbing, strike, contingencies. In some estimates I have found it necessary to consider all these questions, and it is better to treat them altogether, under one heading.

The items proper, begin with "excavator," each class of work having a different value being "segregated," as for example: surface digging, foundation trenches above and below five feet deep, cellars, circular digging, forming slopes, each should, having different values, be given separately, state if carried out in baskets or wheeled, or hauled by team and how far. The same principle applies to engineering work, such as blasting, mud and tide work and such items.

Under "drainage" the quantities of all the different pipes,

their sizes and depths, including number of bends, junctions, diminishing pieces, hoppers, etc., method of forming the joints of the drains and so on, should be stated.

The brickwork bill should begin with a brief but clear description of all the bricks used—facing, common, fire or otherwise, the kind of pointing to joints, proportions of mortar, brand of cement. Then might come the "number" of bricks, keeping the different thicknesses of walls separate.

Here I would like to observe that there seems to me to be some need for a uniform standard of measurement for brickwork—cost cannot be accurately estimated, by simply saying there are so many bricks in a building, for the reason that the labor on brickwork differs a good deal in proportion to the thickness of the walls, and whether pointed or not, a wide foundation or basement wall starting say ten feet below ground, costs less per M than a chimney breast and chimney rising perhaps seventy feet high or more. On the whole I think it is better to give the number of square feet or yards of wall surface, stating how many bricks thick, as half brick thick, one brick thick, two and one-half brick thick and so on, stating if points are left rough, or flat pointed for whitewashing, or cut joints, as the case may be. It is neither wise, nor skillful to strike an average in such cases, and to "lump" the whole thing together at so much a M, for it is the attention to little things that tell in estimating. No one thinks much of half a brick, or as we call it, a bat, and yet I remember a building I figured, I think it was the City Hall tower, in which a bat, more or less, to the square foot, made a difference of over \$3000, in the price of the brick work.

But to return—footings and very thick walls, should be separated from the general walling, also chimneys above, and parts built "in cement" should be so billed and described.

Brick facings—by the square foot these would be given as "extra only" or additional above the price of the common walling. Mouldings, cills and ornamental courses by the lineal foot with these latter I prefer to give all the mitres, etc., internal and external, and returned ends for the reason that when specially molded (as of course they should be in best work) they are more expensive than straight stock of the same kind. The same applies to brick copings, bands, belts, imposts, cornices, etc., etc.

Fair or face arches are given by the square foot, keeping the straight, distinct from the circular. Rough internal arches may be numbered, but the width of opening, rise, thickness and height must be stated.

Numbers of such items as cutting holes, setting grates, safes, boilers, ventilators, etc., with descriptions should appear. In all cases marginal sketches should be given when necessary to illustrate the detail for the contractors information.

A common practice is to commence with all the largest and most expensive items in the materials, and the smallest items in the labors, and here I more particularly refer to the "masons'" bill, though in San Francisco practice, such detail might not perhaps be necessary. We begin with feet cube or rough stone in blocks, each kind of stone being separated, then tons or yards, cube of rubble stone in backings. Lineal items follow, these being stones under 12x12. Small stones are numbered, and described, or sketched. Labor on stone would be in some thing like the following order. Half sawing, plain work, plain work circular, ashlar, pitched, hammered or other facing, all by the square foot. Then we get sunk work as in niches, the same circular.

Next to that is molded work—straight and circular, rubbed and polished work as on marble and granite—both straight and circular, and even circular circular as in spheres and globes, each and every piece of different money value being separated.

In general terms—the same principle applies to mill work, stair work, in fact every part, of each trade is set forth in a similar way—but I will not take up your time with further illustrations.

The bidders price the items in the Q's, and carry the totals of each trade, to the general summary, at the end of the bill and here the bidder finds a space in which to include the Surveyor's fee, or percentage on the sum total.

Upon the contract being let, the better plan, is for the surveyor to be paid upon the architect's certificate, plus of course the out of pocket expense of printing or lithographing the Q's.

It is true that to prepare such Q's as I have referred to calls for more time than individual contractors usually get allowed under the existing method of estimating, but I submit this is of small moment in view of the accuracy and advantages obtained. Three distinct processes are required—1st the taking off or measuring from the drawings, these particulars being inserted in the "dimension" sheets, there cubed or squared up, etc., as the case may be and these sheets are carefully preserved for reference. 2d The making up of the abstract sheets whereby all similar items are collected, condensed and finally classified. 3rd Writing the bill, which should contain full descriptions, and this document is the original of those sent out to the bidders.

The only accurate manner of estimating that I am acquainted with is to systematically measure every part of the building piece by piece—guess at nothing, and take no chances. To do it, may be a little tedious to those not accustomed to such work, but there is no "royal" road—short cut methods are not to be depended upon, cubing or squaring are but approximate guesses, good in their way for certain purposes, but quite unsuited in determining how much money an owner is to pay, or a builder is to receive for a building.

The system will readily admit of a building being let as a whole, or divided up into contracts one for each separate trade, if necessary.

I have prepared by way of illustration, a few specimen sheets of Q's such as I think would satisfy reasonable requirements in San Francisco for some time to come, and they are here for your inspection—of course in actual practice they would be as I say either printed or lithographed.

Continued in April number.

THE EXPERIMENT made by Captain W. de W. Abney, C. B., in the Raphael Cartoon Gallery of the South Kensington Museum, London, of using colored glass to intercept the rays of light which act injuriously on pigments is said to be considered quite successful. The colored glass is hardly noticeable, and many people walk through the gallery without being aware of its existence. The system will probably be extended to the skylights of all the picture galleries in which water colors are hung.—*Building News*.

RECOVERY FOR SERVICES PERFORMED BY ARCHITECTS IN PREPARING DRAWINGS, PLANS, ETC.

EVIDENCE of customary charges of architects for similar services competent, although they may be shown to have originated in a rule of compensation established by architects' associations and not binding upon defendant.

Appeal from the Superior Court of San Francisco County. John Hunt, J.

For Appellant, Robert Harrison, Michael Mullany.

For Respondent, A. P. Van Duzer, Walter H. Levy.

Filed January 19, 1897.

IN BANK.

Augustus Laver et al., Appellants vs. A. P. Hotaling, Respondent. San Francisco No. 502.

Plaintiffs are co-partners in the practice of their profession as architects. They sued in this action to recover the alleged reasonable value of services performed, it is claimed, at defendant's request, in the preparation of drawings, plans and specifications for a building defendant had in mind to erect. After verdict, and judgment in plaintiff's favor, the court granted a new trial, on the sole ground specified in its order, that it erred at the trial "in permitting the introduction of evidence of a rule of compensation of architects, established by architects' institutes or associations." The plaintiffs appeal from the order granting a new trial, and contend that if any evidence of a rule of compensation established by architects' institutes or associations was admitted, it was not introduced or offered by them. A careful examination of the record convinces us that this contention is well founded. In order to prove the value of their services the plaintiffs introduced evidence of the customary charges of architects for similar services. The evidence was, of course, entirely competent; just as the current market price is evidence of the value of goods sold.

On cross-examination of plaintiff's witnesses, and on the direct examination of his own witnesses, defendant brought out the fact that the customary rates of charges made by architects originated in, and conforms to, a rule established by an association of architects. But the fact that the customary rate of charges originated in a rule which, as such, was not binding upon the defendant did not render evidence of the actual custom incompetent. If the usual and regular wages of a mechanic are three dollars per day, does such customary rate become any less competent evidence of the value of his services when it is shown to have been first prescribed by a rule of his union? Certainly not. The rule, it is true, is not binding, as a rule upon those who have not made it a part of their contract, and no one is held to have made it a part of his contract unless charged with knowledge of it. But, however ignorant an employer may be of the customary rate of compensation, such customary rate is evidence of value in any suit by his employee upon a quantum meruit.

The Superior Court did not err, therefore, in admitting the evidence offered by the plaintiffs, or in refusing to strike it out after the defendants had proved the rule of architects. And certainly the defendant was not entitled to a new trial because of the testimony offered by him.

The instruction of the court to the jury, with reference to this testimony, may have been misleading, but it was not excepted to at the time, nor was it specified as a ground of

the motion for a new trial, and can lend no support to the order.

Other grounds were specified in support of the motion, but none of them are relied upon in the argument of counsel, and we cannot see that they possess any merit.

The order granting a new trial is reversed.

BEATTY, C. J.

We concur: Van Fleet, J.; Temple, J.; Harrison, J.; Henshaw, J. I dissent: McFarland, J.



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.

ON THE HILL, San Francisco, C. A. Meussdorffer, Architect.

COUNTRY RESIDENCE, Linden Bree, Del.

COTTAGE AND PLANS, John J. & T. D. Newsom, Architect.

PROPOSED "Monte Carlo" Mexico, W. J. Cuthbertson, Architect.

THE PAPST CAFE.

IN our description of the handsome Pabst Cafe, that appeared in our last issue a mistake crept in which we take the first opportunity to correct. Credit for the sheet metal and cornice work is due to Mr. W. Heidt of 224-226 Mission street.

In making this correction and again calling the attention of the public to this work, we consider we are only doing justice to Mr. Heidt and the care and attention which he gives to all work confided to him.



The Editor is not responsible for any opinions of Correspondents.

To the Editor of the California Architect and Building News.

Referring to "Strollers" enquiry in your last issue as to the proportions for treads and risers, there seems to be no "unalterable" rule, within reasonable limits, if the width of tread plus height of riser=18", a fairly easy going staircase is obtained; for example a $6\frac{1}{2}$ " riser to a $11\frac{1}{2}$ " tread—but if this rule be carried to extremes it would of course be possible to so distort the proportions, as to make stairs resemble a step ladder.

Again, if the "rake" or pitch of stairs be made 30° the result is fairly satisfactory. It would appear that the length of a persons step should govern the width of tread, and as this varies with tall and short people, old and young, an "average" length of a persons step might be, say 24.75 inches. Then taking $6\frac{3}{4}$ " as an "average" for a riser, the following formula would give a good result:

$$24.75 - (6.75 \times 2) = 11.25 \text{ the width of tread}$$

This being the same, as in the 18" rule already mentioned for tread and riser. For outside entrance steps, it is better to decrease the riser, and increase the tread.

G. ALEXANDER WRIGHT

FROM THE THIRD BIENNIAL REPORT OF STATE MINERALOGIST—STRUCTURAL MATERIAL.

CONTINUED FROM LAST NUMBER.

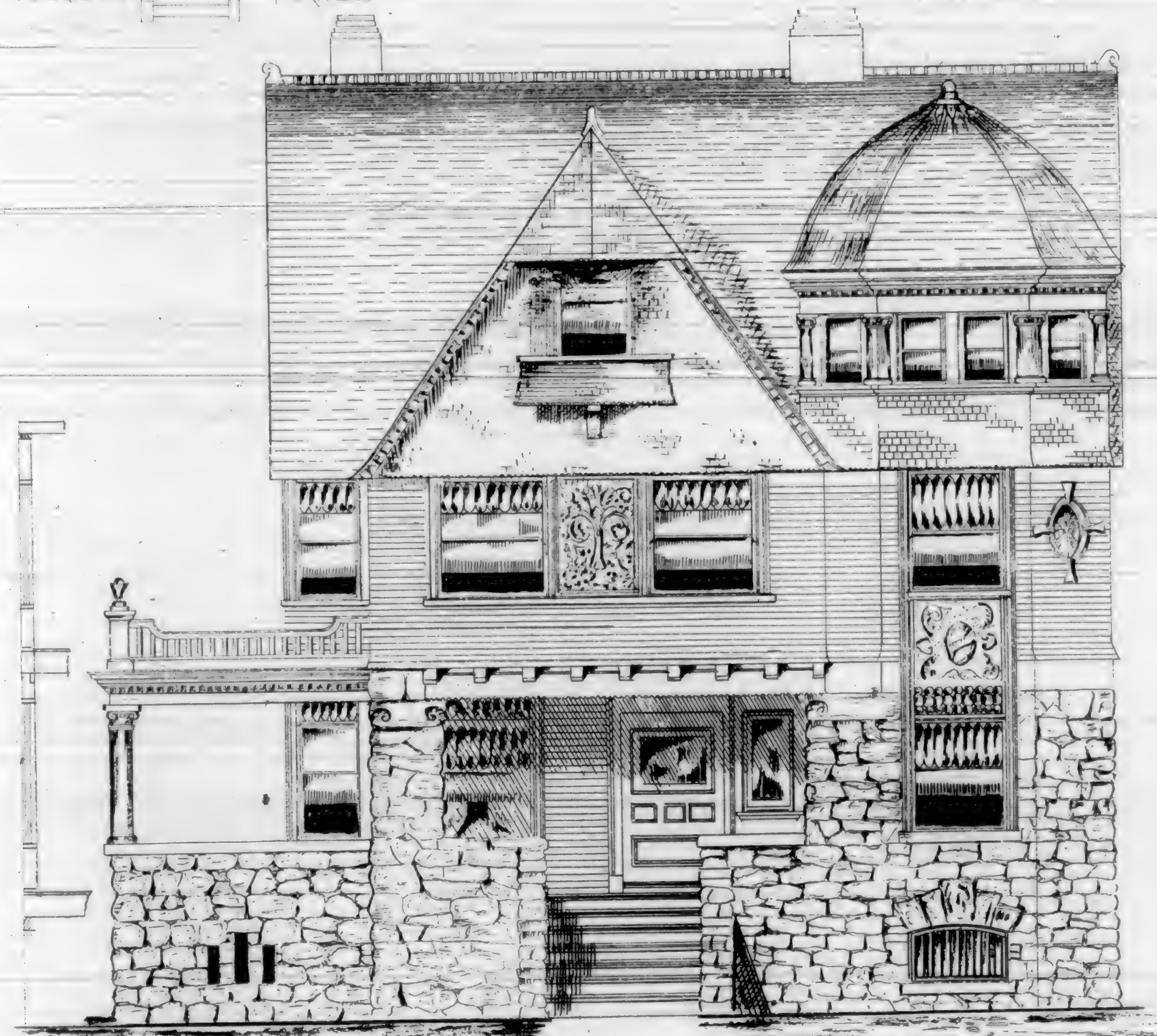
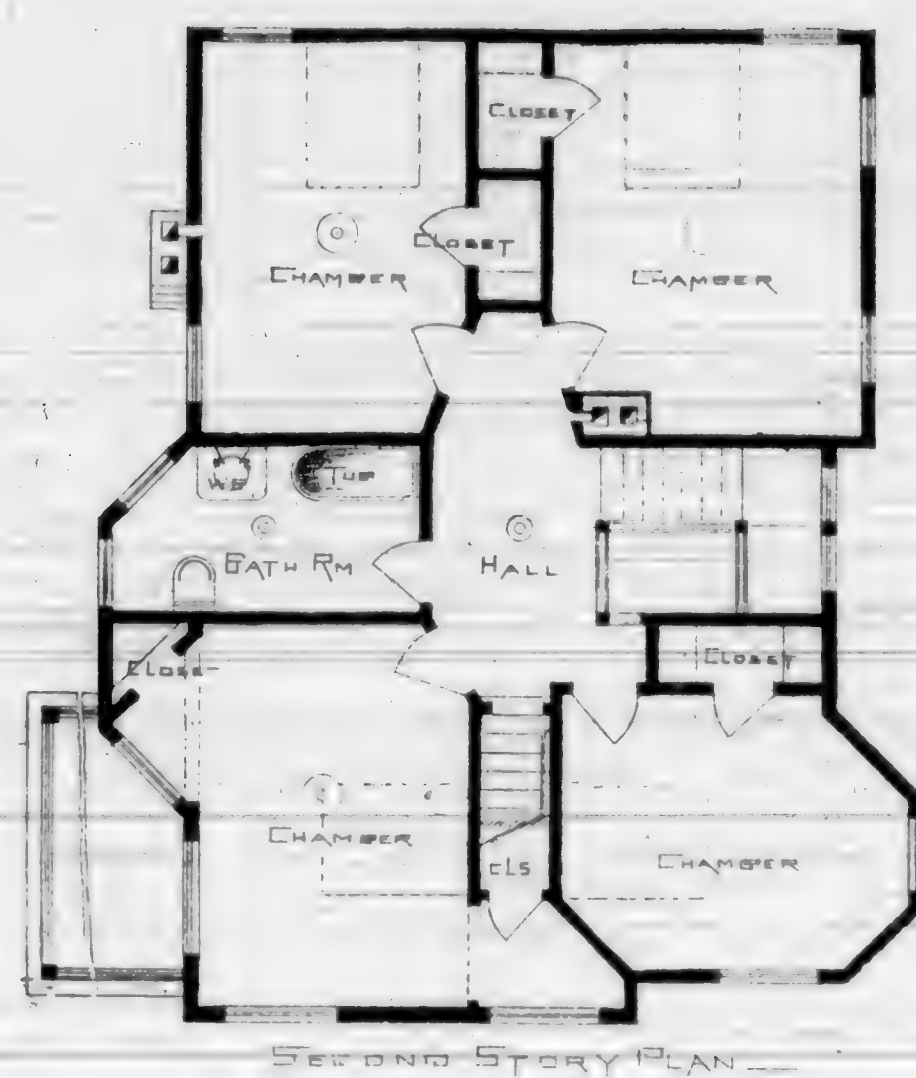
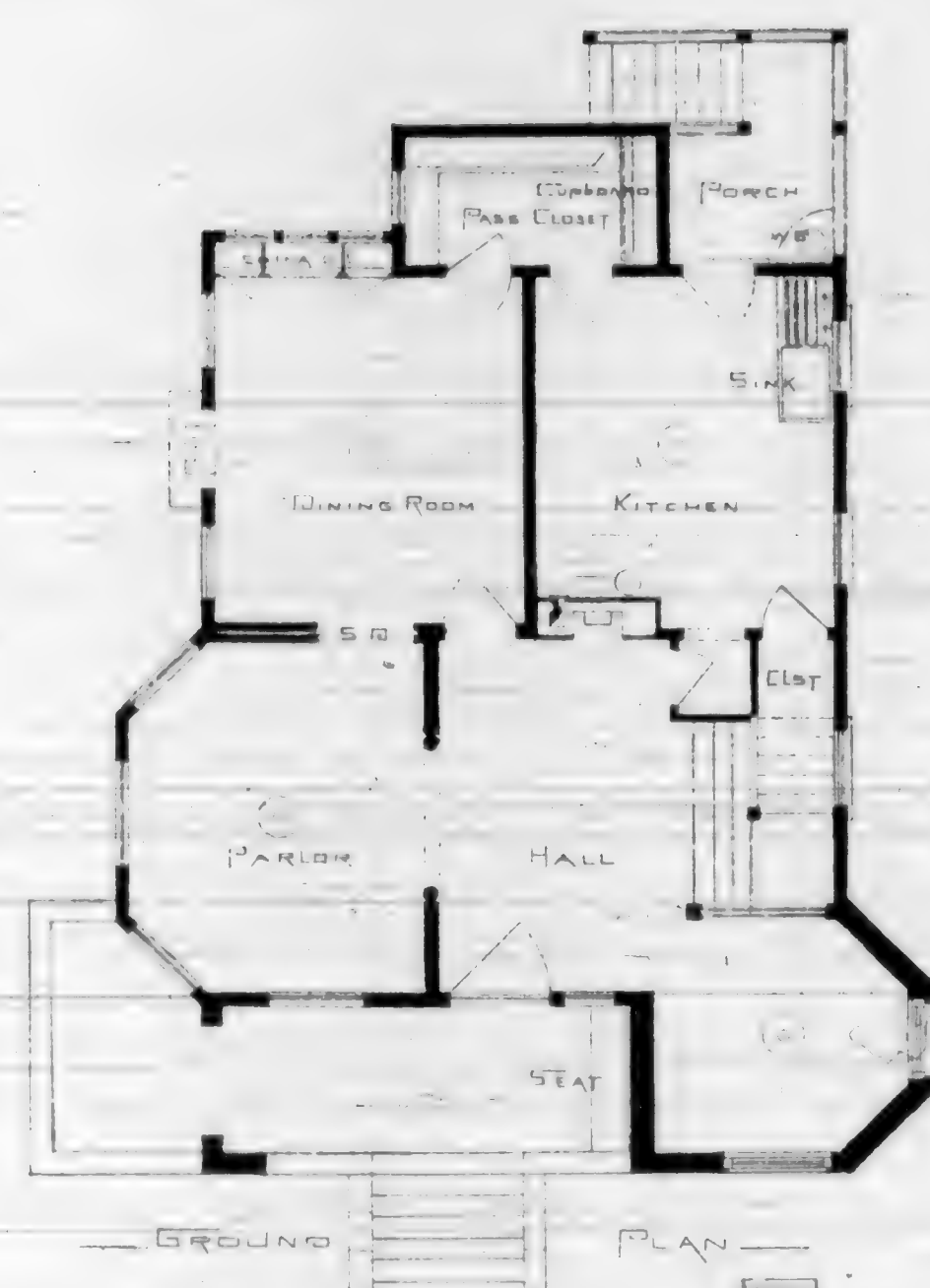
GRANITE

MADERA COUNTY

Day Quarries—They are 2 miles S. of Raymond, and were thoroughly equipped in 1893, and worked for a time. Are now idle. Day & Sons, of Raymond, owners.

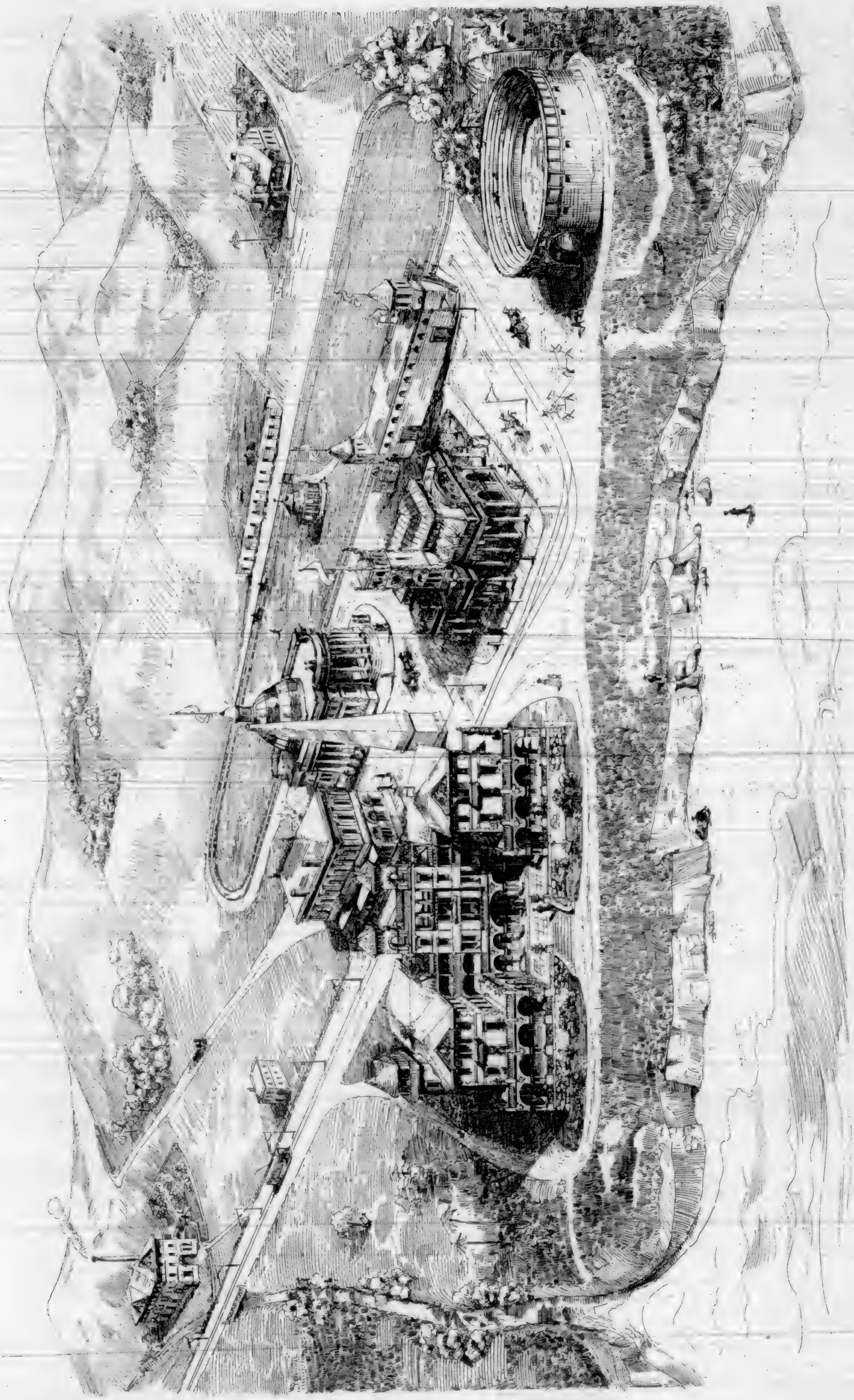
McLennan Quarries—They are $1\frac{1}{2}$ miles SE of Raymond and have been worked steadily during the past three years, employing from 20 to 60 men. The quarry improves as it is opened, both in quality of the stone and in the size of the blocks which may be obtained. Blocks of granite, $25' \times 25' \times 10'$ are available, if they could be handled. A. McLennan of Raymond, owner.

Raymond Granite Quarry—It is $1\frac{1}{2}$ miles E of Raymond, on a spur track of the railroad from Berenda to Raymond. This great quarry has been actively worked for several years, giving employment to a large number of men at the quarries and at the company's yards in San Francisco, where most of the finer stone-dressing is done. After an interval of over two years no considerable impression seems to have been made on this immense, dome-shaped, granite hill. Any noticeable change has been for the better. The great block



— JOHN J. & T. D. NEWSOM —
ARCHITECTS
— MERCHANTS EX —
— S.F. CAL —

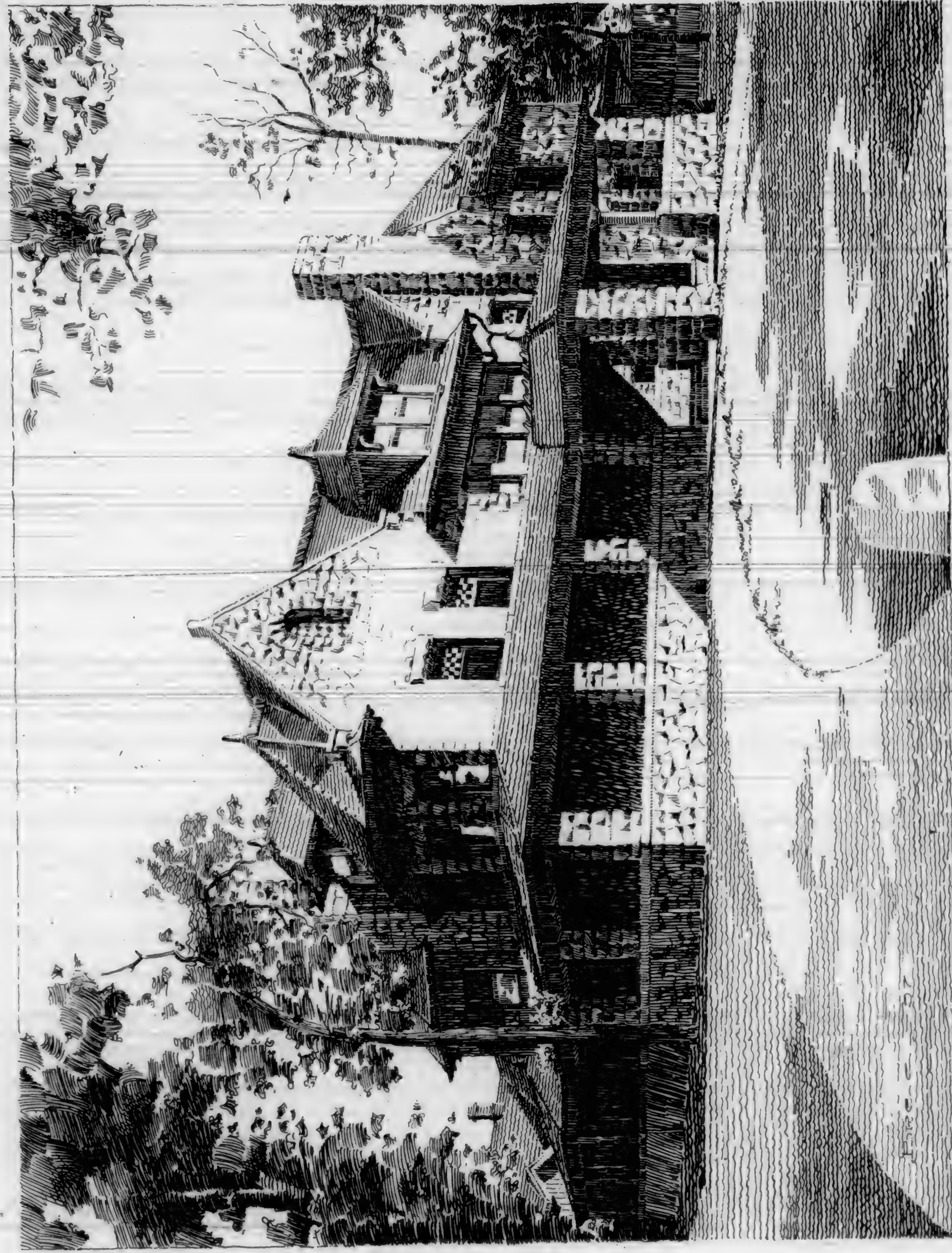
— FRONT ELEVATION —



PROPOSED MONTE CARLO, MEXICO.
BRITTON & REY, PHOTO-LITH.

CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO.

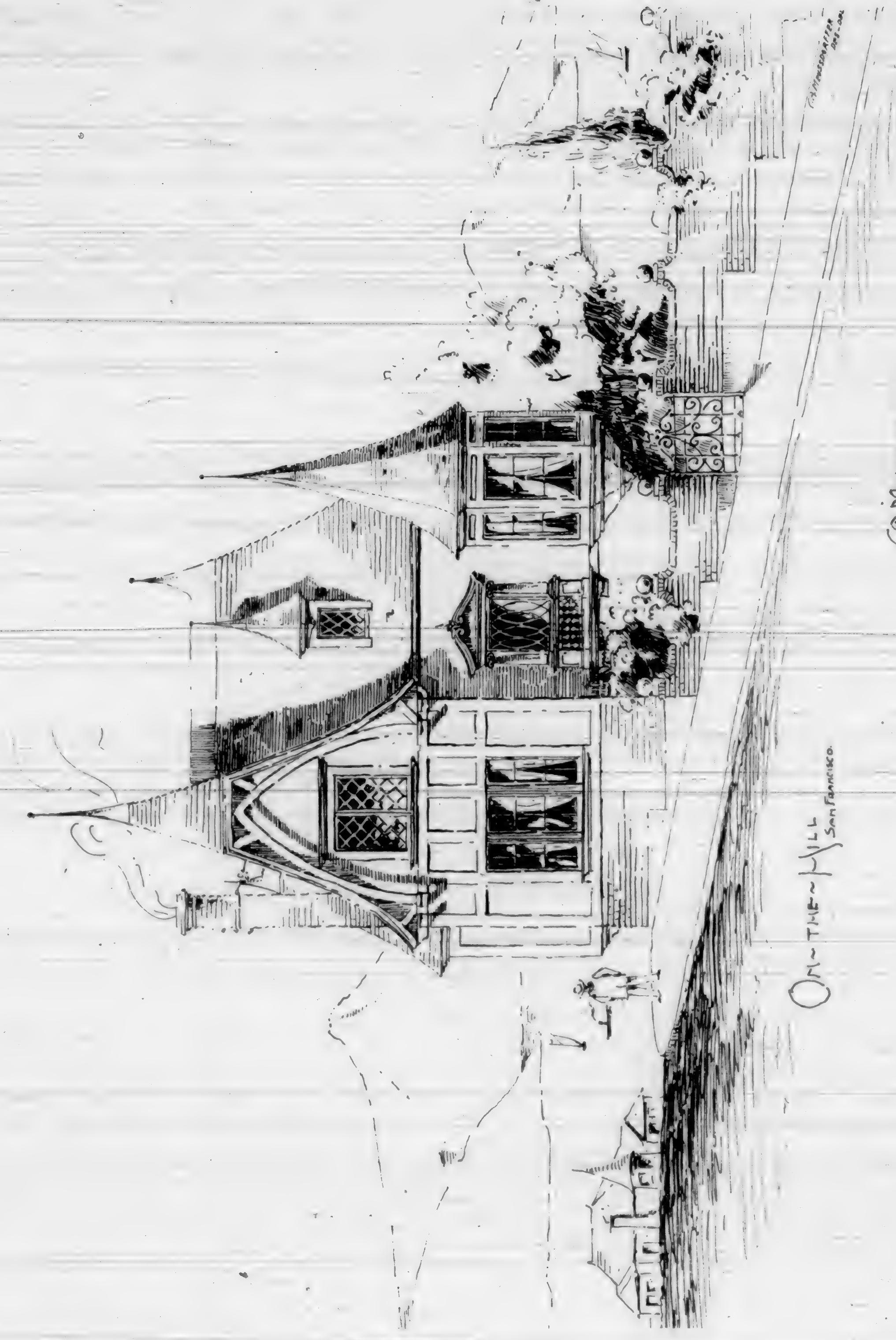
W. Culbertson, Architect.
VOL. XVIII NO 3 MARCH 1897.



Linden Bret, dpl.
BRITTON & REY, PHOTO-LITH.

CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO.

VOL. XVIII NO 3 MARCH 1897.



ON THE HILL
San Francisco

C. MESSIDORFFER
ARCHT.
47-48 S. B. B. B. S. F.

CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO

BRITTON & REY PHOTO LITH

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referred to in our XIIth Report has been proven to be thicker as the front portion has been removed. It averages about 20' in thickness now, 40' and more in exposed width, and over 300' in length; when this has been removed, a similar great concentric mass underlies it. The great advantage in this granite lies in its remarkably homogeneous texture. A slab 20' in length, or even more, may be riven from a much larger block by the "feather and plug" system, none of the holes being over 3" or 4" deep, and the river surface will be almost a perfect plane. Raymond Granite Co., owner; D. L. Knowles, of Raymond, superintendent.

NEVADA COUNTY

Pine Grove Quarry—It is $\frac{1}{2}$ mile E of Nevada City, and comprises $2\frac{1}{2}$ acres. It consists of the working of large boulders of a fine-grained, hard granite, suitable for curbing, steps, bases to monuments, etc. One hand-derrick with 40' boom is used. The output last year was 1,000' of curbing. Two cutters are employed, E. D. Bridges, of Nevada City, owner.

PLACER COUNTY

A large area of granite rock ("grano-diorite" of W. Lindgren, of the U. S. G. S.) between Auburn and Roseville stretches northward, more or less disconnected, approximately to Bear River. It is extensively quarried about Rocklin, Loomis, Penryn, and Lincoln, and is used for general building purposes, and occurs in large masses, separated by that which is partially disintegrated. About Rocklin and Lincoln it is uniformly very light colored, and shows too little contrast between polished and rough surface. As the eastern boundry of the region is approached it becomes darker. It is said to resist great crushing force.

Borghese & Silvino's Quarry—It is 2 miles NE of Lincoln. Street-curbing is worked from an outcrop or boulder. Three men are employed. C. Borghese of Lincoln, manager.

Brady's Quarry—See our XIIth Report, p. 384. It is near Rocklin. Idle. — Brady of Rocklin, owner.

Burlin & Temble Quarry—It is a small quarry, $2\frac{1}{2}$ miles NE of Lincoln. It employs 3 quarrymen, 3 stonecutters, and 2 hand-power derricks. William Burlin of Lincoln, manager.

Burns (Burns & Coffey) Quarry—See our XIIth Report, p. 384. It is a small quarry, 3 miles SE of Lincoln. Two steam-power derricks are used, and 3 quarrymen and 2 stonecutters are employed. M. Burns of Lincoln, superintendent.

Calderwood's Quarry—See our XIIth Report, p. 385. It is a small quarry, $1\frac{1}{2}$ miles E of Lincoln. Idle. — Calderwood, of Lincoln, owner.

Carlaw Bros.' Quarry—It is $1\frac{1}{4}$ miles E of Loomis, in Sec. 10, T. 11 N., R. 7 E., at about 375' elevation. There are 17 acres in the property, on which is a vast quantity of light gray granite rock, used principally in building and cemetery work. One steam-power derrick is used. The rock is hauled to Loomis in the rough, at a cost of \$7 per car, and shipped to Sacramento, where the cutting is done. Six men are employed at the quarry. A. W. Turner, of Loomis, superintendent.

Copp's (Copp & Waters) Quarry—See our XIIth Report, p. 385. It is $\frac{1}{2}$ mile SE of Rocklin, in the NE $\frac{1}{4}$ Sec. 29, T. 11 N., R. 7 E., at about 240' elevation. The open cut is about 100'x200' and 80' deep. Four steam-power derricks are used. The stone quarried is largely used for vaults, foundations, monuments, and buildings; 10 quarrymen, 5

stone-cutters, and 3 laborers are employed. R. H. Copp, of Rocklin, owner.

Dunn's Quarry—It is in Rocklin, on leased ground, in Sec. 29, T. 11 N., R. 7 E. Two horse-power derricks are used. Three men are employed, cutting curbing. D. Dunn of Rocklin, manager.

Eureka Quarry—See our XIIth Report, p. 386. It is in Rocklin, in the NW $\frac{1}{4}$ Sec. 29, T. 11 N., R. 7 E. The open cut is 75'x200' and 70' deep. Three steam-power derricks are used, and 6 quarrymen and 6 stonecutters are employed. J. P. Allen of Rocklin, manager.

Fletcher's, L., Quarry—It is a small quarry on Granite Street in Rocklin, and worked intermittently. Nine men are employed when the quarry is operated. L. Fletcher of Rocklin, owner.

Griffith's Quarry and Polishing Works—See our XIIth Report, p. 385. They are $\frac{1}{2}$ mile E of Penryn. Idle. D. Griffith, of Penryn, manager.

Grimes' Quarry—It is a small quarry, 2 miles E of Lincoln. Four men are employed, getting out curbing. Amos Grimes of Lincoln, owner.

Hoyt's Quarry—It is in the eastern part of Rocklin, in SE $\frac{1}{4}$ Sec. 29, T. 11 N., R. 7 E., at 265' elevation. Four men are employed, getting out curbing. Howard Hoyt of Rocklin, owner.

Hytimen & Wickman's Quarry—It is $\frac{3}{4}$ of a mile S of Rocklin, on leased land, in the NE $\frac{1}{4}$ Sec. 29, T. 11 N., R. 7 E. The open cut is 100'x150' and 60' deep; one steam-power and two horse-power derricks are used. Four men are employed, getting out curbing. Hytimen & Wickman, of Rocklin, managers.

J. N. L. (Jeter) Quarry—It is 2 miles E of Lincoln, at about 170' elevation. The open cut is about 40'x100' and 40' deep. Two horse-power derricks are used. The stone is used for cemetery and building purposes. There are 4 quarrymen and 8 stonecutters at work. T. H. Jeter of Lincoln, owner.

Jacobson's Quarry—It is a small quarry in Rocklin, 25'x50' and 30' deep. One derrick is used, and 5 men are employed. — Jacobson of Rocklin, manager.

Jeter Quarry—See J. N. L. Quarry.

Johnson's, M., Quarry—It is a small quarry at Rocklin, in the SE $\frac{1}{4}$ Sec. 19, T. 11 N., R. 7 E. One horse-power derrick is used, and 4 men are employed getting out curbing.

Kent Quarry—See our XIIth Report, p. 385. It is at Rocklin, and practically abandoned.

Loomis Quarry—It is $\frac{1}{2}$ mile S of Loomis, at 385' elevation. The open cut is 60'x150' and 65' deep. Two steam-power and two horse-power derricks are used. Five men are employed. M. J. Haley of Loomis, owner.

Mantyla's Quarry—It is at Rocklin, near the center of Sec. 19, T. 11 N., R. 7 E. The open cut is about 100'x200' and 40' deep. Two steam-power derricks are used. It is worked intermittently, and 5 quarrymen and 5 stonecutters are employed when running. John Mantyla, of Rocklin, manager.

McDonald's Quarry—It is a small quarry, $2\frac{1}{2}$ miles SE of Lincoln. Four quarrymen and 2 stonecutters are employed. C. J. McDonald of Lincoln, owner.

Quinn's Quarry—See our XIIth Report, p. 385. It is at Rocklin. The open quarry is 125' and 75' deep. Two steam-power derricks are used. Three quarrymen, 3 stonecutters, and 2 laborers are employed. Mrs. Mary Quinn, of Rocklin, owner; Quinn Bros., of Rocklin, managers.

Roberts & Fippins' Quarry and Stone Works—The works are at Penryn and the quarry is 1 mile SE of it. Gray

granitic rock is quarried from a large outcrop, and the workings do not extend below the general surface. It is darker than the Rocklin granite, and shows a marked contrast between polished and rough surface. The work consists of a 14 H. P. engine and boiler, a double lathe for turning columns, urns, vases, etc., and machinery for polishing both flat and curved surfaces, mouldings, etc. Three quarrymen, 3 stonecutters, and 3 millmen are employed. D. A. Roberts and A. B. Figgins of Penryn, owner.

Rocklin Granite Co.'s Quarry—See our XIIth Report, p. 386. It is at Rocklin, on leased land, in the SW $\frac{1}{4}$ Sec. 20, T. 11 N., R. 7 E. The quarry is 150'x250' and about 100' deep. The equipment consists of five steam-power derricks, each of which is capable of hoisting blocks weighing 25 tons each, one traveling crane for handling stone in the sheds, one McDonald stone-cutting machine, one 40 H. P. engine and boiler. The "Krox blast" is used in the quarry. Ten quarrymen, 16 stonecutters, and five laborers are employed. E. M. Hall, Jr., of Oakland, secretary; J. L. Delano, of Rockland, president and manager.

SAN BERNARDINO COUNTY

Sherer Quarries—They are two miles S of Oro Grande, at the side of the Southern California R. R. John Sherer of Victor, owner.

SAN DIEGO COUNTY

Waterman Quarry—It is at Fosters, the present northern terminus of the Cuyamaca and Eastern R. R. It was opened in 1894 for the purpose of quarrying massive blocks of stone for the jetty near Point Loma, at the entrance to San Diego harbor. The contract having been completed, the quarry is now idle and machinery removed. W. S. Waterman of San Diego, owner.

SAN LOUIS OBISPO COUNTY

Lee's Quarry—It is 4 miles NW from San Louis Obispo, at about 425' elevation. The rock is a hard, light gray porphyry, in which the feldspar is partially decomposed. The trimmings for the court-house at San Louis Obispo are said to have been taken from this quarry, and considerable rock from it has been used for railway culverts, bridges, etc. The rock is broken by joint planes, which makes it more or less difficult to get good dimension stone. It is worked by an open cut, 25'x75' and 25' deep. Idle. Chas. Lee of San Louis Obispo, owner.

Morro Rock Quarry—It is near the base of Morro Rock, a conical shaped peak at the entrance of Morro Bay, and is about 600' altitude. The rock is a hard, light gray porphyry in which the feldspar is slightly decomposed. It breaks regularly, and good dimension stone may be easily obtained. It is quarried by contract, and loaded from the quarry on barges by a steam-power derrick. The principal part of the rock quarried is used in constructing a breakwater at Port Harford, and a limited quantity for buildings. The quarry is on a Government reservation.

SHASTA COUNTY

Masterton Bros.' Quarry—It is on Brandy Creek, $1\frac{1}{2}$ miles S of Stella. The granite is coarse-grained, dark, and similar to the Lincoln granite, in Placer County. Only boulders are worked, into curbing and coping, the quality being hardly fine enough for monumental work. Pieces 2'x10'x10'

are produced. Four men are at work, 2 quarrymen and 2 stonecutters. Masterton Bros. of Redding, owners.

TRINITY COUNTY

Rush Creek Quarry—See our XIIth Report, p. 387. This is situated on Rush Creek, 6 miles E of Waverville, and contains 40 acres. At present only boulders are worked. The granite is fine-grained, free from iron, and not very hard. Seven stonecutters are employed. Materton Bros. of Red Bluff, Tehama County, owners.

TULARE COUNTY

Griffith & Owens' Quarry—See our XIIth Report, p. 387. It is $3\frac{1}{2}$ miles E of Exeter, on the S. P. R. R. and on the eastern base of Rocky Hill. Practically idle. Griffith & Owens of Exeter, owners.

To be continued.

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.

DAMAGES FOR NON-PERFORMANCE OF BUILDING CONTRACT.—In an action for services for construction of a building, the owner, after testifying that he had to complete it himself, and that it took up his time so that he could not attend to his regular business as a merchant, was asked what time he had lost and its value. The court held that the measure of damages in that regard was the value of the time spent as superintendent, and not the value of the time lost to the other business.

Crawford v. Harris, Sup. Ct. Cal., 45 Pacific Rep. 819.

FENCES.—An injunction will not lie to restrain an adjoining owner from maintaining a fence 11 feet high on the division line, which shuts off the circulation of air from other buildings, thus rendering it damp and unhealthy.

Peck v. Roe, Sup. Ct. Mich., 67 N. W. Rep. 1080.

MARRIED WOMAN'S PROPERTY IN KENTUCKY.—Under the laws of Kentucky regarding mechanic's liens, a married woman cannot be charged for labor performed, or material furnished in the erection or improvement of buildings on her separate property, without a written contract, even though she acquiesced in the erection of the building, and gave directions about its construction.

Webster v. Tattershall, Ct. App. Ky., 36 Southwestern Rep. 1126.

EFFECT OF ASSIGNMENT OF CONTRACTOR'S CLAIM.—Claims against the owner of a building, says the Supreme Court of Indian, for work done or materials furnished in connection with same may be assigned, but they carry no lien unless a lien has been first per-

fect by the mechanic or material man in whose favor the right to the lien primarily exists.

Jenckes v. Jenckes, 44 Northeastern Reporter, 632.

WHEN MORTGAGE IS SUPERIOR TO MECHANIC'S CLAIM OF LIEN.—The lien of a mortgage given by the purchaser of real estate to the seller at the time of the conveyance of the legal title is superior to the lien of a material man who furnished material for the construction of a building on such land, the buildings having been commenced before the conveyance of the title; the purchaser having no authority or permission to enter upon or take possession of the premises, for any purpose, before the legal title was transferred.

No. Valley Lumber Co. v. Keid, Ct. App. Kas., 45 Pacific Rep. 722.

BOOKS AND PERIODICALS.

Rule and regulations of the CENTRAL-AMERICAN EXHIBITION decreed by the National Legislative Assembly of the Republic of Guatemala.

At a time when our merchants are endeavoring to extend their trade with South America it may be well to call their attention to this exhibition which will be inaugurated on the fifteenth of March, 1897 and close on the fifteenth of the following July.

This exhibition will be held in the Capitol of the Republic of Guatemala, covering an area of twelve city blocks and 8082 square yards.

The branches admitted to the exhibition will be classed in groups in the following order:

FIRST—Science and literature; 2d Education and instruction. 3rd Fine arts. 4th Machinery and building. 5th Agriculture, horticulture, Arboriculture and cultivations of a special nature. 6th Fauna and Flora. 7th Decorative art. 8th Various industries. 9th Transportation. 10th Transportation. 11th Mining. 12th Immigration.

Article 5. The groups into which these branches are divided will be subdivided into classes in conformity with the annexed list.

Article 6. Articles which are offensive to public morals, or deleterious to the general health, will not be admitted to the Exhibition.

Proceedings of the Sixth Annual Convention of the ASSOCIATION OF RAILWAY SUPERINTENDENTS of Bridges and Buildings, held in Chicago, Illinois, October 20, 21 and 22, 1896.

This report contains a list of the members present at roll call as well as to the road they are with and also a list of the application for membership.

The description of this body of railway superintendents, are fully reported and cannot fail to be of interest to those interested in the construction and safe maintenance of bridges and road ways.

A number of drawings of station houses are given and if we may be allowed the remark, they have more the resemblance of the engineers drawing than the work of an archi-

tect, doubtless however they answer the purpose for which they were intended.

Annual Report of the Board of Regents of the SMITHSONIAN INSTITUTION, showing the operations, expenditures and condition of the institution to July 1894. Washington Government printing office, 1896.

This valuable document is one that would be missed not only by the scientific world but by the people in general, on account of the large amount of information of value in relation to our every day life. Photography, electricity, agriculture and astronomy are all included among the various researches that are here published. The latest discoveries up to date are here recorded and suggestions of what may be expected in the near future open a wide field of thought.

NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS, meets second Friday of each month at 408 California street.
SETH BARSON, Pres. W. P. MOORE, 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.

THEO. A. EISEN, Pres. ARTHUR B. BENTON, Vice-Pres.
WILLIAM C. AIKEN, Sec't. AUGUST WACKERBARTH, Treas.

WASHINGTON CHAPTER AMERICAN INSTITUTE OF ARCHITECTS, regular meetings at 8 o'clock P. M., the first Friday of each month, except July and August.

JOS. C. HORNBLLOWER, Pres. JAS. G. HILL, Vice-Pres.
E. W. DUNN, JR., Sec. W. J. MARSH, Treas.

ASSOCIATION OF ARCHITECTS OF ARIZONA, meetings held at Phoenix, Arizona.

D. W. MILLARD, Pres. T. H. MADDOX, Vice-Pres.
W. R. NORTON, Sec. and Treas.

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

E. J. MOLERA, Pres. W. F. C. HASSON, Vice-Pres.
OTTO VON GELDERN, Sec. EDWARD T. SCHILD, Treas.

MASTER PLUMBERS' ASSOCIATION, meets every first and third Friday of each month at the Flood Building.

JAS. E. BRITT, Pres. J. L. E. FIRMAN, Sec.

BUILDERS' EXCHANGE, Directors meet first Friday in each month at Mission and New Montgomery.

OSCAR LEWIS, Pres. JAS. A. WILSON, Sec.

MASONS' AND BUILDERS' ASSOCIATION, meet first Friday evening of each month.

ADAM BECK, Pres. M. V. BRADY, Sec.

THE EXPOSITION OF 1898.

The Exposition site in the northern suburbs of Omaha embraces ample area, is most accessible, and in every way adapted for the purpose. The board of managers passed a resolution providing for the following nine buildings, which will constitute the nucleus around which the smaller buildings will be assembled:

Building No. 1—Agriculture, Horticulture and Forestry; No. 2—Mines and Mining; No. 3—Manufacturers and Liberal Arts; No. 4—Fine Arts; No. 5—Electricity and

plates one or more permanent buildings. It is desired to have four of the buildings built in a permanent and substantial manner, if the arrangements for so doing can be made, but it is certain that some of the buildings will be of a permanent character. The government building will probably be one of these, the purpose of the exposition promoters being to purchase this building after the exposition is over. It is also the purpose to have the auditorium constructed of permanent material.

Application for space at the exposition continue to pour into the department of exhibits and a very flattering show-



FORESTERS' HALL AT PALO ALTO.
CUTHBERTSON & WILLIAMSON, ARCHITECTS.

Machinery; No. 6—Auditorium; No. 7—The Nebraska Building; No. 8—Grand Army of the Republic Building; No. 9—The Silver Palace.

In the discussion regarding these buildings the idea was advanced that the auditorium building should be made a model of the world-famed tabernacle in Salt Lake City, a building renowned as having the most perfect acoustic properties of any auditorium in the world. The material to be used in the construction of the buildings has not been decided upon by the exposition authorities, but it is more than likely that the temporary buildings will be built in the same way as the World's Fair Buildings, of stucco, a form of stucco. The plan of the exposition authorities, however, contem-

ing has been made in a number of different lines. The list of applicants for space is already large and growing daily; manager E. E. Bruce of the department of exhibits announces special prizes, consisting of six gold trophies, six silver cups and six gold medals, to the competitors in each of the following classes: For the best display of an irrigating system in operation; for the best electric light service in display; for the best display illustrating the process of the manufacture of beet root sugar; for the best display of manufacturing plant in operation; as well as two more lots of similar prizes for other high class exhibits to be designated hereafter.

The Exposition will open June first and close November 1, 1898.

BUSINESS MOSAICS.

The J. L. Mott Iron Works is represented on this coast by Mr. M. S. James, who can be found at room 27, Flood Building. Parties are especially invited to call at their show room and examine the various sanitary appliances as applied to housekeeping. The Hinged Drain Board as shown on the kitchen sink is one among other improvements that demand attention.

Balg—Why do you call your horse She? **BURI**—Because she makes a rider haggard.

W. W. Montague & Co.—Nowdays when the effect of your rooms is so much improved by a handsome mantel with all the fire place trimmings in keeping, it is well to know where you can depend upon finding the best of every thing in this line of goods. Every article furnished by the above named firm can be depended upon as being what it is represented to be.

You can hardly fail to find what you want in the house-keeping line, either for hotel or private house in the way of heating and ventilation or complete kitchen outfits. Branch stores at Los Angeles and San Jose.

Clark—Why are you going to move, did the owner raise the rent? **SCHEMER**—The owner had to, we couldn't.

Joseph Budde, 575 Mission street has so long supplied sanitary appliances in the plumbing line to San Francisco, that it is hardly worth while to call attention to his show room in Mission street but if you will look upon page vii of this journal you will find his advertisement and may be reminded of what you want in his line.

Teacher (serverely)—Tommy Smith, come here. Why haven't you learned your geography lesson? **TOMMY**—'Cause the papers say there's going to be a change in the map of Europe.—*Tit-Bits*.

Dixon Graphite Paint is an article without a rival for the tin or shingle roofs. Architects at the east would laugh if you wished to paint your roof with any thing else. If you want your roof preserved for fifteen years try it.

Virgil says of some of his people: "They can because they think they can." But in the sardine business people can because they have to can.—*Somerville Journal*.

J. W. Burtchaell manufacturer of electric and gas fixtures art glass work, gold, silver, copper, brass and nickel plating, 11 Trinity street, between Bush and Sutter above Montgomery.

The young man who is anxious to lay the world at the feet of the girl he adors, three months after he marries her isn't willing even to lay the carpet.—*Yonkers Statesman*.

J. Leonard contractor for concrete and artificial stone, Spreckels Building, Market street. See advertisement on page xiv of this journal.

Store Proprietor—So you want a job as floor walker, do you? Hane you any recommendations? "No, but I'm an experienced hand, Sir. I'm the father of nine children."—*Tit-Bits*.

Samuel Kellett manufacturer of plaster decorations, plastering repaired and whitened, 28 Ellis street, San Francisco and 375 Twelfth street, Oakland.

Owen—What's in a name, anyhow? **DUNNE**—Not much in yours, old man. **OWEN**—What do you mean? **DUNNE**—Why, everything you've got is in your wife's name, isn't it?—*Tit-Bits*.

The Pancoast Ventilator manufactuaed by N. & G. Taylor Co., Philadelphia, Pa., is guaranteed to exhaust more cubic feet of air per minute than any other storm-proof ventilator made. This ventilator is made of black sheet iron and then galvanized. See their advertisement upon page ii.

Mr. Hart (to his wife, teasingly)—Making angel food, my dear? **HIS WIFE**—No darling. You know if I did there wouldn't be anybody but me to eat it.—*Times*.

As a protection against accidents the Model Window Hinge cannot be too highly recommended, as it affords a safe and easy mode of washing windows without the danger of going outside the house this. If hinge is brought to the notice of the good housekeeper it cannot fail to come into general use.

The office of the company known as "The Model Window Hinge Co." is on 7th floor of the Mills Building, room 5, where the operation as applied to the window can be seen. Do not fail to call if you do not want you neck broken by falling from a window without the model hinge.

CITY BUILDING NEWS.

Alvarado near Douglass. Cottage; owner, Jacob Heyman; days' work; cost \$200.

Alvarado near Douglass. Cottage; owner, John Lynch; cost \$1500.

Beal near Bryant. Excavations, brick and cement work; owners, Hobbs, Wall & Co.; architect, T. J. Welsh; contractor, J. F. Riley; signed, Feb. 26; filed, Feb. 27; cost \$3000.

Belvedere near Waller. To build; owner, Mrs. M. J. Goodwin; contractor, D. Einstein; signed, Feb. 23; filed, Feb. 24; cost \$1050.

Benth and Schrader. To build; owner, Mrs. Emma J. Purnell; architect, Edgar A. Mathews; contractors, Caldwell & Nickerson; signed, March 3; filed, March 8; cost \$1800.

Bloom Vista Ave. near Waller. To build; owners, William H. Dick and Mary A. Dick; architect, R. H. White; contractor, White Bros.; signed, March 4; filed, March 5; cost \$3800.

California Ave. and Powell Ave. Additions; owner not given; contractor, W. C. Hamerton; cost \$1200.

Croce near Mission. Cottage; owner, Louis Metter; cost \$1000.

Douglass near Alvarado. To build; owner, John Lander; cost \$1500.

El Dorado and Rhode Island. Brick work for garbage crematory; owner, Sanitary Reduction Works; architect, Chas. Thackery; contractors, O. E. Brady & Son; signed, Feb. 17; filed, March 3; cost \$30,000. Roofing work, etc.; contractors, Canlin & Roberts; cost \$2000. Carpenter work; contractors, Maccone & Rose; cost \$2500. Iron work, etc.; contractors, Josh Hendy Machine Works; cost \$10,500.

Fell near Laguna. Alterations and additions; owner, J. Silverstein; contractors, Carmichael & Grant; signed, Feb. 8; filed, Feb. 15; cost \$2200.

Fell near Buchanan. Alterations and additions; owner, Martha A. Morrison; architect, F. H. Wood; contractor, Chas. E. Miller; signed, Feb. 22; cost \$2370.

Fulton near Lyon. Two-story frame; owner, Mrs. Louise Nieman; architects, Laist & Schwerdt; contractor, Franz & Burmeister; signed, March 4; filed, March 6; cost \$3750.

Francis near Mission. Cottage; owner, Frederick Munk; days' work; cost \$1000.

Geary near Powell. Brick work for five-story brick; owner, A. Aronson; architect, C. E. Wilson; contractor, John E. Riley; signed, Feb. 15; filed, Feb. 20; cost \$7500. Carpentry, mill work, etc.; contractor, F. V. Steinman; cost \$500. Sausage work; contractors, McPhee Co.; cost \$325.

Grant Ave. and Sutter. Alterations and additions; owner, Mrs. Alice P. Sullivan; architect, Edward R. Swain; contractor, Mahoney Bros.; signed, Feb. 11; filed, Feb. 18; cost \$10,175.

Grant Ave. and Sutter. Plumbing, gas fitting, etc.; owner, Mrs. Alice P. Sullivan; architect, Edward R. Swain; contractors, Allen & Looney; signed, Feb. 11; filed, Feb. 18; cost \$1955.

Green near Scott. To build; owners, C. C. Gross and H. M. Gross; architect, E. W. Hyde; signed, Feb. 24; filed, Feb. 25; cost \$4500.

Green near Montgomery Ave. To build; owner, Mrs. J. Strauss; architect, M. J. Lyon; contractor, R. Fahy; signed, March 8; filed, March 12; cost \$3045.

Green near Webster. Alterations and additions; owner, H. W. Luckey; contractor, A. Petry; signed, March 13; filed, March 15; cost \$1000.

Greenwich and Jones. To build except plumbing; owner, Julius Biemer; architect, W. H. Arnold; contractor, L. M. Weisman; signed, March 5; filed, March 10; cost \$2440.

Grove near Steiner. To build; owner, J. J. Croner; cost \$5000.

Gough near Fulton. To build; owners, Giesen Bros.; contractor, G. T. Knopf; cost \$3000.

Jackson and Octavia. Excavations, brick and granite work for two-story; owner, Mrs. Isaac Hecht; architect, J. E. Kraft; contractors, Miller & Beck; signed, Feb. 11; filed, Feb. 11; cost \$4950. Carpenter work, etc.; contractor, C. Chisholm; cost \$16,000. Plumbing; S. Lokenheimer & Bro.; cost \$2085. Painting, etc.; contractor, J. St. Denis; cost \$1000.

Kentucky near 18th. Two-story frame; owner, James McHugh; contractor, R. O. Davis; signed, March 12; filed, March 15; cost \$1250.

Lotta near Parnassus Ave. Cottage; owner, Ida H. Lutgen; contractor, W. W. Redmill; signed, Feb. 11; filed, Feb. 13; cost \$2500.

Mission near 23d. Alterations and additions; owner, Chas. F. Guilan and minor heirs; architect, R. J. Chisholm; contractors, E. J. Thayer & J. H. Hughes; signed, Feb. 10; filed, Feb. 16; cost \$1700.

Manchester near Stoneman. Additions; owner, Aug. Voss; contractor, H. Behrens; cost \$800.

Montgomery junction of Bay. Frame building for manufactory; owner, Stauffer Chemical Co.; days' work; cost \$8000.

Nebraska and Cortland Ave. Cottage; owner, Henri Pottet; architect, E. Dejerre; contractor, R. Trost; signed, March 5; filed, March 6; cost \$1474.

Ninth Ave. near "P" street. Cottage; owner, John F. Ritter; architect, Aug. Nordin; contractor, G. W. Hansbrough; signed, Feb. 24; filed, Feb. 26; cost \$1500.

Nineteenth and Howard. To build; owner, O. Falch; architects, Martens & Coffey; contractor, C. Schuff; signed, Feb. 26; filed, Feb. 27; cost \$3350. Plumbing, etc.; contractor, G. S. Sweeney; cost \$1000. Painting; contractor, F. S. Schaefer; cost \$370.

O'Farrell near Powell. Alterations and additions; owner, Thos. J. Regan; architect, T. J. Welsh; contractor, James E. Mooney; signed, Feb. 24; filed, Feb. 25; cost \$1800.

O'Farrell near Powell. Excavation, etc.; owner, Thos. J. Regan; architect, T. J. Welsh; contractor, Thos. J. Mooney; signed, Feb. 24; filed, Feb. 25; cost \$2000.

Park Alley near Clay. To build; owner, D. T. and Anna Herzog; contractor, John Byron; signed, March 8; filed, March 12; cost \$1275.

Post Office Building at Ferry Depot. Elevator; owner, Board of Harbor Commission; contractors, Cahill & Hall; cost \$730.

Polk near Pine. Alterations and additions; owner, Julius Duetch; architect, Wm. H. Wharf; builder, Geo. Trozler; days' work; cost \$900.

Pl. Lobos Ave. and 25th. To build; owner, W. A. Lowler; contractor, Louis Cerghino; signed, Feb. 19; filed, Feb. 26; cost \$1800.

Pierce near Filbert. To build; owner, James Owens; architect, J. V. Campbell; contractor, Daniel Powers; signed, March 2; filed, March 3; cost \$1800.

Sacramento near Davis. Brick and terra cotta work for two-story brick; owner, Estate of J. G. Fair; architect, Ed Owens; contractors, Miller & Beck; signed, Feb. 24; filed, March 1; cost about \$10,000.

Sausome and Hallock. Elevators; owner, Jacob Stern; architects, Pissis & Moore; contractor, W. L. Holman; signed, Feb. 10; filed, Feb. 17; cost \$3768.

Sausome and Hallock. Painting brick building; owner, Jacob Stern; architect, Pissis & Moore; contractor, M. J. Donovan; signed, March 9; filed, March 12; cost \$1600.

San Jose Ave. near 20th. To build; owner, J. Blaxome; contractor, John B. Glanz; signed, Feb. 25; filed, Feb. 25; cost \$2352.

Stockton and Market. One-story brick; owner, O. D. Baldwin; day's work; cost \$5000.

Shrader near Waller. To build; owner, J. K. Fraser; architect, W. Koenig; contractor, J. W. Coburn; signed, March 2; filed, March 2; cost \$4290.

Surry near Diamond. Cottage; owner, F. C. Sowler; cost \$1000.

Tenth Ave. near Clement. To build; owner, Charles F. Muller; architect, Wm. H. Arncliffe; contractor, Harry Wharton; signed, March 9; filed, March 13; cost \$2100.

Twenty-second and Chattanooga. Cottage; owner, J. H. Van Glahn; contractor, G. M. Salsburg; signed, Feb. 26; filed, March 1; cost \$1200.

Twenty-second and Chattanooga. Cottage; owner, J. H. Van Glahn; contractor, G. M. Salsburg; signed, Feb. 26; filed, March 2; cost \$1200.

Twenty-third near Douglass. Cottage; owner, John Oswald; cost \$1000.

Taylor near Clay. Three-story frame; owner, John Dunn; architects, McDougal Bros.; contractor, John H. McKay; signed, Feb. 15; filed, Feb. 16; cost \$3727.

Van Ness Ave. and Elm Ave. Alterations; owner, I. Lowenberg; architects, Salfeld & Kohlberg; contractor, John Furness; signed, March 8; filed, March 9; cost \$1186.

Waller near Webster. Cottage; owner, Catherine Wren; contractor, Frank Gallagher; signed, Feb. 15; filed, Feb. 19; cost \$1570.

Waller near Masonic Ave. Two-story frame; owner, Minnie Wheeler; contractor, T. T. Pottinger; signed, March 4; filed, March 5; cost \$4200.

Waller near Masonic Ave. To build; owner, C. R. Wilson; contractor, A. W. Jones; signed, March 6; filed, March 6; cost \$5450.

Waverly Place near Sacramento. Excavations, etc., for two-story brick; owner, Paul Fleury; architects, Pissis & Moore; contractor, M. V. Brady; signed, Feb. 23; filed, Feb. 23; cost \$1480.

Waverly Place near Sacramento. Carpenter work, etc.; owner, Paul Fleury; architects, Pissis & Moore; contractor, F. W. Kern; signed, Feb. 23; filed, Feb. 25; cost \$1030.

Willard near Adeline. Frame building; owner, J. R. A. Vance; days' work; owner, R. A. Vance; days' work; cost \$6000.

The California Architect and Building News.

OFFICE, 408 CALIFORNIA STREET.

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

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NUMBER 4

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OLIVER EVERETT, Secretary.

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3 inch.....	3.00	15.00	27.00	50.00
4 inch.....	4.00	20.00	36.00	65.00
5 inch.....	5.00	25.00	45.00	80.00
6 inch.....	6.00	30.00	54.00	95.00
7 inch.....	7.00	35.00	63.00	110.00
8 inch.....	8.00	40.00	72.00	125.00
9 inch.....	9.00	45.00	81.00	140.00
10 inch.....	10.00	50.00	90.00	155.00
11 inch.....	11.00	55.00	99.00	170.00
12 inch.....	12.00	60.00	108.00	185.00
13 inch.....	13.00	65.00	117.00	200.00
14 inch.....	14.00	70.00	126.00	215.00
15 inch.....	15.00	75.00	135.00	230.00
16 inch.....	16.00	80.00	144.00	245.00
17 inch.....	17.00	85.00	153.00	260.00
18 inch.....	18.00	90.00	162.00	275.00
19 inch.....	19.00	95.00	171.00	290.00
20 inch.....	20.00	100.00	180.00	305.00
21 inch.....	21.00	105.00	189.00	320.00
22 inch.....	22.00	110.00	198.00	335.00
23 inch.....	23.00	115.00	207.00	350.00
24 inch.....	24.00	120.00	216.00	365.00
25 inch.....	25.00	125.00	225.00	380.00
26 inch.....	26.00	130.00	234.00	395.00
27 inch.....	27.00	135.00	243.00	410.00
28 inch.....	28.00	140.00	252.00	425.00
29 inch.....	29.00	145.00	261.00	440.00
30 inch.....	30.00	150.00	270.00	455.00
31 inch.....	31.00	155.00	279.00	470.00
32 inch.....	32.00	160.00	288.00	485.00
33 inch.....	33.00	165.00	297.00	500.00
34 inch.....	34.00	170.00	306.00	515.00
35 inch.....	35.00	175.00	315.00	530.00
36 inch.....	36.00	180.00	324.00	545.00
37 inch.....	37.00	185.00	333.00	560.00
38 inch.....	38.00	190.00	342.00	575.00
39 inch.....	39.00	195.00	351.00	590.00
40 inch.....	40.00	200.00	360.00	605.00



WHILE the late Legislature of California is open to criticism for sins of omission as well as sins of commission, it passed one bill that is a meritorious one, and will tend to simplify materially the transferring of land and thus facilitate its purchase and sale. The bill is the one popularly known as the Torrens' bill, which we have

frequently commented upon in these pages. In another column we give the more important sections of this bill in full, and a resume of all its provisions, believing the importance of the measure to all real estate holders justifies the amount of space occupied.



HE PUBLIC has been at last aroused as to the want of a new United States Government Building in San Francisco—the persistent efforts of the CALIFORNIA ARCHITECT AND BUILDING NEWS we hope have tended to this result.

Representatives of all the leading business interests in the city met at the Chamber of Commerce and adopted a memorial to Congress, urging that the work be begun immediately. The Trades Unions are also one with this.

The Examiner has the following to say on the subject:—“Once more information that work is about to begin on the San Francisco Post-Office comes from Washington to comfort and to cheer. However, as the years fleet by it is losing a measure of its power in this direction.”



WE SEE by late exchanges the war ship Oregon has gone upon the rocks at the entrance of the Dry Dock—the extent of damage as yet unknown but evidently of a serious nature.

Is it not about time to call a halt upon building these immense unmanageable monsters, that appear to be more dangerous to those that navigate them than to the enemy they are supposed to attack.

A Government that appears to be too poor to construct a post-office building for San Francisco, after ten years trial, should not waste millions upon millions to produce more war ships that they can not navigate from one port to another without wrecking.



WE ARE glad to see that Mayor Phelan is attempting to prevent the taking up of the sidewalks by the show windows of shopkeepers by vetoing permission to grant the same.

We cannot do better than to give the reasons for refusing such permission in his own words:

"The evil has grown by reason of the fact that one property owner extends his show window over the sidewalk, thus compelling his neighbor to do the same, and so on progressively until all the show windows are projected. If the privilege was not granted in the first instance, every property-owner would be compelled to occupy his own land. He could produce the same effect on his own line by making embrasures instead of projections, and the public would not be the sufferers. As it is now one foot is taken off the sidewalk and given to the property-owner, thus narrowing the channel over which people are compelled to pass, inconveniencing and crowding them into the roadway. Such an absorption of the sidewalk is certainly in derogation of the rights of the citizen to its free and full use."

BILLS OF QUANTITIES AND THEIR RELATION TO BUILDING CONTRACTS.

PAPER READ BY G. ALEXANDER WRIGHT BEFORE THE SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS, FEBRUARY 12, 1897.

[CONTINUED FROM LAST ISSUE]

WE WILL now dwell for a moment upon what is being done in other large communities.

In 1891 I visited Melbourne, Australia, the most American city probably in the world, outside the United States—and there the quantity system had been in operation for twelve years or more. In Sydney, N. S. W., it was my privilege to exchange views very fully upon this subject with the president of the Institute of Architects (Mr. Horbury Hunt) and who by the way is an American—who informed me that the architects and builders of the city had just joined hands in the adoption of the quantity surveyor. In Scotland, quantities are used—the same system prevails in England and Ireland—and in Continental Europe a somewhat similar system of measure and value is found in various forms, and although not exclusively the case, the prin-

ciple, of so much work (by measurement) for so much money, appears to find favor.

I know of no community where that principle, having once been adopted has been abandoned for the system such as we use here in San Francisco to-day. Nevertheless, we need not copy the system of any particular place. We can, if necessary, frame a system of our own—and adapted to the local needs of all parties concerned—and who can tell that such a system may not form the basis of one uniform national system for the entire union? I have reason to think that the necessity for some thing of this kind is being felt.

I have had some correspondence recently with Prof. Ware the editor of the *American Architect*, and that gentleman writes me that he has long been hoping to see some modification of the quantity system universally adopted in this country, and he is not alone in this opinion, and I believe it would be a distinct step in advance if San Francisco could be the first city to take up this question in an organized way and to examine it.

But I want to speak to you, upon the advantages of the quantity system as "briefly" as I know how. In the first place it will save at least one-half of the contractor's time and labor, and which is entirely unproductive now. Time we are told is money—and without question, unproductive labor is "waste"—and I believe it is beginning to be recognized. One frequently hears builders and material men say "I am about tired of figuring, there is nothing in it, etc.," but it is not to be wondered at. I noticed in one of the building papers the other day, a strong protest from a San Francisco contractor against the present unsatisfactory method of estimating and it is not so very long ago that a Boston architect (Mr. Rodman of Boston I think it was) had something to say in one of the professional journals on the subject. He denounced the present system of estimating as reckless, unscientific, and impractical and I can but endorse his views.

Take the mill work of any large job for example—may be there are half a dozen millmen—all going over exactly the same ground, doing precisely the same thing either at the architect's office or elsewhere. A number of brickmen are doing the same in their department—then the concrete men come, and the masons, and the iron men, (but I needn't go through the list we are all familiar with them) twenty, thirty or even forty men or more, figuring in different departments for one job—and this goes on year in and year out—at least ninety per cent of these workers throwing away time and brains. Would they not be more profitably employed in supervising, more closely, what work they already have? and yet, the bulk of the work done by these thirty or forty men, could be done by one man. As well, you say? Why certainly, gentlemen, and I think with advantage to many a builders banking, account.

It has been said that it is better to have the contractor make out his own quantities as well as make up the money estimate. But does he (as a general rule) do either of these things—now, I know some who may do so; but is it not a fact that the tendency is largely to collect together all the cheapest bids that can be got from material men and mechanics. The result added to the rough lumber bill perhaps, with something for labor and profit often times forms the "figure." I do not say this is not perfectly legitimate, under the present method, but the ease with which these sub bids are obtained indicates that it is frequently the sub bidders who do the bulk of the estimating, of course as I say, with certain exceptions. I remember an interesting point as showing the

extent to this practice. There was a case before the courts some three years ago in which I was called as a wit — The issue was a simple one, viz: the actual value of a large building standing not far from us now. Several contractors were called as "experts" on both sides, some of these testified as to the value of the building, but under cross examination it transpired that their valuations were made up largely from figures or bids furnished to them for this particular purpose, and so they were testifying upon the strength of somebody else's opinion, and which as the Judge said, was not evidence, nor, was it estimating in the proper sense.

Another advantage of the quantity system is that it tells a bidder exactly in black and white, what he is to figure upon; there can be no mistaking what is meant, and we should hear less about omitting to figure items that ought to be figured. A bill of quantities is valuable and indisputable evidence upon all such points. Many a bidder can probably recall instances where he lost money upon a contract, though omitting something and which never could have occurred if he had been bidding under the quantity system.

Another point for your consideration, would the quantity system place the incompetent man upon a level with the competent one? in other words, would the incompetent gain any advantage? I say no, it would be more likely to be the other way round, and my reason is this. An incompetent estimator is far more likely to forget something than he is to include too much, this is an established fact, and competitors who do get in all their items are handicapped from the start by men who do not. They never know what kind of a break the other fellow will make. I have in the past been there myself and speak from experience. With quantities all are bound to start level as regards "quantity" and nine times out of ten this is an advantage to the best men, individual skill and judgment in pricing, will tell just as much as with quantities as without them, and the incompetent, will have a bigger fight on their hands than with the present method. The trouble unfortunately, does not end here. The best estimators have to protect themselves against the omissions of the incompetent. They do so by cutting their itemized prices down to cost, or nearly so, and to-day the keen competition job, is scarcely worth having as far as "profit" is concerned. Dull times are not wholly to blame for low prices, incompetent estimators have something to do with it.

Again, take changes on contracts and this is where that schedule, we filed away in the architects safe is useful.

Upon a change being contemplated or executed, it is an easy matter to get at the quantity of material added and omitted, figure it out at the competitive, prices given in the schedule and the whole thing is settled, without the chance of a dispute about the payment for the changes. It is all very well to say, disputes don't often occur but when they do occur, it is well for both contractor and architect to have something at hand, that will settle them at once, and with absolute fairness to the owner and contractor, quantities will prevent disputes usually, which is still better. In a recent case, which came into my hands as an arbitrator a bill of quantities would have been of great value in determining the liabilities and rights of the parties to the arbitration—indeed it is possible that an arbitration would never have been necessary at all.

But I need not occupy your time with further illustrations beyond saying perhaps that the specifications can be made

much shorter than is usually done, for the quantities would contain all necessary detailed descriptions.

In concluding this section of my paper, I may remind you that neither the architect nor the contractor are put to the slightest expense for quantities, and I do not suppose that any class of mechanics or builders will seriously object to a document, which is the best of all guarantees in black and white, that they will not be called upon to do a dollar's worth more work than is stated (in detail) and is called for by the "quantities."

It might be well to see you a moment how the quantity system would affect the owner.

Before any such system can be adopted, a proper understanding between architects and contractors, is essential. All the available information, and data, on the subject should be obtained. Let the system be thoroughly investigated. If it is then desirable, a uniform standard of measurement for everything in a building—agreeable to all parties, should be established so that the technical terms, descriptions, order and method adopted in all quantities (by whomsoever prepared) should be uniform throughout, so that they may be readily understood by all bidders methodical course is essential, so that after pricing one or two sets of quantities, contractors will know exactly where to find any particular item.

To meet any doubt as to the possibility of one contractor set of quantities being more advantageous than another it would be an easy matter to have, open for free inspection one spare copy of the quantities on file at the architect's office, and another, say in the directors room of the Builders' Exchange. This opportunity for verification by any bidder would prevent improper practices, but such details as these might be easily arranged. We will assume now that an owner (whilst very rightly trying to obtain a good building at the lowest market price) is willing to pay a fair and legitimate sum for honest and legitimate work. That owners want an "estimate" or bid. Now he does not want it to be any more, than it ought to be, and the contractor does not intend it to be any less. Now it is an impossibility to get an accurate estimate, without accurate quantities, and which are essential to the owner's interest and he must be so informed, and that the expense will be included in the bids.

In view of the work put into modern buildings, compared with that of early days, it is unjust on the part of owners, to expect each contractor to furnish quantities, as well as to calculate cost values, the latter is their legitimate field, but the owner should, through the quantity surveyor say how much lumber, how much brick work, how many pounds of steel, etc., etc., his agent, the architect has decided to use.

A contractors estimate of the cost of a building, that is the lowest estimate is the very thing the owner needs the most, and it is "custom" alone, and a very bad custom at that which has brought about the present one sided condition of things. It matters not, gentlemen, how long the present method has continued, it is wrong in principle, bad in equity, and very largely unproductive in practice to contractors. No body of men are justified in performing unproductive labor, even though custom has sanctioned the practice. As I said in the *American Architect* of January 23rd:—

"An owner may decline to build on receiving bids, upon any pretence; he may in his heart never have intended to build at all, unless he saw a chance of getting two dollars of a builder's money for one of his own, and yet he now gets his estimate for nothing. This does really seem absurd.

An owner pays (or should pay) his architect for what work he may do, and if the owners be made to see the advantages to themselves of the quantity system, they should be willing to pay for the quantities also. Such a practice, when the justice of it became understood, would not prevent honest owners from building, but it might deter the "grasping" owner (the man who imagines the architect's special duty is to help him to rob the builder); it might deter these men, from defrauding builders out of their time and experience, as is sometimes the case under present conditions.

I remember some months ago, in discussing this "quantity" question I expressed the opinion that if the owner could not be prevailed upon to furnish quantities, he should at least contribute something towards the cost of the estimate, especially where no bid was accepted, and I notice that quite recently the same thing has been suggested in the official journal of the National Association of Builders, published at Boston, still, although this plan may have its advocates, the introduction of some system, of so much work, for so much money—is I think, the only true remedy for present evils.

One advantage of quantities to the owner is, that supposing bids exceed the contemplated expenditure, as they have a way of doing sometimes, the cost of the building might easily be cut down, without re-figuring, by striking out of the quantities such items as can be dispensed with, still retaining the balance of the estimate, at legitimate competitive prices, which as I have pointed out, would also apply to any changes, etc.

Again, the less desirable class of contractors or those less skilled in determining money values, will hardly run the risk of figuring on less material than is called for by the quantities, and as they cannot buy any cheaper than the more responsible men the chances will be in favor of the best men being the lowest bidders and this, if not a direct money advantage, will at least favor good work; certainly the more accurate the estimate, the less temptation there is to do anything improper.

I hope no gentlemen will accuse me of professional sacrilege, if I say that from the average owners point of view, the cost of a building, is to him of almost, or quite, as much consequence, as the design—and yet, although he may occupy several months perhaps in making up his mind what he wants, the vitally important question to him, and to the contractor, of what it will cost? has as a general thing to be rushed through almost at lightning speed and as though his very existence depended upon it.

If a building does not go on by reason of the owner deciding not to build, he of course still has to pay for the quantities. They were essential to a proper estimate—which he has received, and can be used, just as soon as he decides to go on. In a general way I think it is an equal and reasonable dividing up of the responsibility, for the owner to furnish the quantities if the contractor furnishes the money estimate. The great progress which is being made in modern building construction, certainly suggests the need of some corresponding improvement in the manner of estimating and taking bids.

In conclusion, gentlemen, I hope I have not detained you too long, beyond the time which should be occupied for a paper of this kind. I much appreciate your kind invitation to be present to-day and I thank you Mr. President and gentlemen for your courteous attention.

AN ACT FOR THE CERTIFICATION OF LAND TITLES AND THE SIMPLIFICATION OF THE TRANSFER OF REAL ESTATE.

SECTION 1. Recorders and ex officio Recorders in the several counties of this State shall be registrars of titles in their respective counties, and their deputies shall be deputy registrars. All laws relative to recorders and their deputies, including their compensation, clerk hire, and expenses, shall extend to registrars and their deputies, so far as the same may be applicable, except as in this Act otherwise provided. Registrars of titles shall be county officers within the meaning of the laws of this State.

SEC. 2. The official bonds now required by law to be given by Recorders and ex officio Recorders before entering upon the discharge of their duties, shall also apply to and cover the faithful discharge of their duties as registrars, whether such additional condition be specifically provided for in such bonds or not.

SEC. 3. Deputies may perform any and all duties of the registrar, in the name of the registrar, and the acts of such deputies shall be held to be the acts of the registrar.

SEC. 4. Registrars and deputy registrars are prohibited from practicing law, or acting as attorneys or counselors at law, or having as a partner a lawyer or any one who acts as such, or from acting as searchers of title under this Act.

BRINGING LAND UNDER THE ACT.

SEC. 5. Land may be brought under the operation of this Act by the filing with the County Clerk of a verified petition to the Superior Court of the county within which such land is situated, by the owner of any estate or interest in such land, whether legal or equitable (other than an undivided share, or an easement). The Clerk shall immediately indorse on such application the exact time of its presentation, and enter the same in a book kept for that purpose and known as the Land Register Docket. Persons who collectively claim to hold the entire legal estate in fee simple may jointly file such petition. A corporation may apply by its authorized agent, an infant by his guardian; any other person under disability by his guardian or trustee. Land constituting a single parcel and lying partly in two or more counties may be included in one application, which may be made in either county in which the land lies, but the certificate issued therefor must be filed with the registrars of all the counties within which such land is situate. Two or more parcels of land may be included in one application if owned by the same person and in the same right.

SEC. 6. The petition shall set forth substantially:

(a) The name, occupation, place of residence, and post-office address of the applicant, and if the application is by one acting in behalf of another, the name, place of residence, post-office address, and capacity of the person so acting, and the nature of the disability of the person for whom he is acting.

(b) Whether the applicant (except in case of a corporation) is married or not, and, if married, the name and residence of the husband or wife.

(c) The description of the land.

(d) The applicant's estate or interest in the same, and whether the same is subject to an estate of homestead.

(e) Whether the land is occupied or unoccupied, and, if occupied, the name and post-office address of each occupant,

and what estate or interest he has or claims in the land.

(f) Whether the land is subject to any easement, lien, or incumbrance, and, if any, the name and post-office address [if known] of each holder thereof, and the nature and amount of the same, and, if recorded, the book and page of the record.

(g) Whether any other person has any estate or claims any interest in the land, law or in equity, in possession, remainder, reversion, or expectancy, and, if any, the name and post-office address [if known] of ever such person, and the nature of his estate or claim.

(h) The names and post-office addresses of all the owners of the adjoining lands, so far as he is able, upon diligent inquiry, to ascertain the same.

(i) If the applicant is a male, that he is of the full age of twenty-one years; if a female, that she is of the full age of eighteen years. If the application is made by a corporation, its name, when and where incorporated, its principal place of business, and the names and post-office addresses of its president and secretary. If the application is by a husband or wife, and the property is community property, the petition must so state, and both spouses must join therein. A plat or plan of survey of the land made by the county or a licensed surveyor must accompany the application, and if said land is a part of a city, town or subdivision, the application must refer to the book and page of the records of the county where the map of said city, town, or subdivision is recorded, if at all.

Each application must be accompanied by an abstract of the title, verified by the searcher making the same, as required in proceedings in partition, or, if made by a corporation engaged in the business of making and certifying abstracts of title, then in lieu of the affidavit a certificate by such corporation, under its seal, shall be sufficient. When the title to the land in question has been previously determined by a final decree of a court of competent jurisdiction, such abstracts need not antedate such decree unless required by the court in which such application is filed. No person or corporation shall be authorized to make or furnish such abstracts of title until after entering into an undertaking with two or more sufficient sureties to the people of the State of California in a sum not less than [ten] thousand dollars, which may be increased from time to time by order of the court. Such bonds shall be recorded in the record of official bonds in the Recorder's office of the county and then filed in the County Clerk's office. Said bond shall be conditioned to pay all damages and costs which the State may sustain by reason of any error or insufficiency in said abstract. The sureties on such bond shall qualify as provided in section ten hundred and fifty-seven of the Code of Civil Procedure, and the sufficiency of the bond and of the sureties thereon shall be approved by a Judge of the Superior Court of the county where such bond is to be filed. The sureties upon such bond may become severally liable in portions of not less than five hundred dollars each, making in the aggregate at least two sureties for the whole sum. Said bond shall be renewed as often, at least, as once in every period of three years.

SEC. 7. No mortgage, lien, charge, or lesser estate than a fee simple shall be registered unless the fee simple to the same land is first registered.

SEC. 8. It shall not be an objection to bringing land under this Act, that the estate or interest of the applicant is subject to any outstanding lesser estate, mortgage, lien, or charge; but every such lesser estate, mortgage, lien, or charge shall be noted upon the certificate of title and the

duplicate thereof, and the title or interest certified shall be subject only to such estates, mortgages, liens, and charges as are so noted, except as herein provided.

SEC. 9. No title derived through sale for any tax or assessment shall be entitled to be first registered, unless it shall appear to the satisfaction of the court, upon the hearing of the application, that the applicant, or those through whom he claims title, have been in the open, actual, continuous, uninterrupted, undisputed, exclusive, and adverse possession of the land under such title at least five years, and have paid all taxes and assessments legally levied thereon for five successive years.

SEC. 10. The application may be amended only by petition verified as in the case of the original. Such amendment may be ordered by the court on its own motion, or upon the motion of any person interested in the proceeding.

SEC. 11. The filing of the application in the office of the County Clerk shall be sufficient notice of the same to all subsequent purchasers or incumbrancers without the filing of a *lis pendens* in the office of the Recorder.

SEC. 12. The court shall, in its discretion, examine the abstract itself, or refer the same, as provided in section [eighteen] of this Act. If it shall appear to the court, from an examination of the abstract, or from the report of the referee, that the title to the land described in the application is substantially as alleged by the applicant, the application shall be set for hearing, otherwise the court may order the application [dismissed].

SEC. 13. When the time and place for hearing the application is fixed by the court, notice thereof shall be given to all parties interested, as shown by the petition and the abstract or referee's report, and to the husband or wife of the applicant, if married, and the owners of adjoining lands, in the same manner as the service of a summons in a civil action, [and] [by publication for at least four weeks, in some newspaper of general circulation, to be designated by the court;] provided, that no copy of abstract or map need be served with the petition. Any person interested may appear and object to the granting of the application, and if such objection is sustained, the costs of the same shall be paid by the applicant; if not, by the person so objecting. The time for appearance after service shall be the same as in the case of a civil action.

SEC. 14. Upon the day set for the hearing of the application, or at such time as the same may be continued to, the court shall cause examination to be made into the applicant's title to the land in question, and shall hear testimony as to the allegations of the petition, or of any objections thereto; and if any defects are found in the application, or in the applicant's title to the land, or if any of the allegations of the petition are found to be untrue, or any objections to said petition are sustained, the court may dismiss such application, or may give the applicant such time as the court may deem reasonable, before finally passing upon his application.

SEC. 15. If it shall be made to appear, to the satisfaction of the court, that the notice required by section thirteen has been duly given and served; that the facts stated in the application are true, and that the applicant is the owner of the land, or interested therein, as set forth in the petition, the court shall duly make, give and enter a decree to that effect, which said decree shall contain an accurate description of the property in question, with a diagram thereof, and also shall set forth all liens and incumbrances on said land, with the name of the holder thereof, and the nature, amount, and order of the same, and, if recorded, the book and page of the

record. Any party aggrieved by such decree may appeal therefrom in the manner now or hereafter provided by law for appeals in civil actions.

SEC. 16. A certified copy of such decree shall be filed in the office of the registrar, who shall thereupon issue a certificate of title to the person entitled thereto as shown by said decree, and shall proceed to bring said land under the operation of this Act, as herein provided. Said certificate shall contain the description of the property set forth in the decree, and shall also show the nature, amount and order of the liens thereon.

SEC. 17. The decree of the court ordering registration shall be in the nature of a decree in rem, and shall be final and conclusive as against the rights of every and all persons, known and unknown, to assert any estate, interest, claim, lien, or demand of any nature or kind whatever, against the land so ordered registered, except as provided in this Act.

SEC. 18. Upon the filing of the partition the court may appoint a referee to examine and report upon the abstract accompanying the same. Such referee shall be an attorney in good standing, skilled in the examination of titles, of not less than three years' practice at the bar of the court so appointing him. The compensation of the searcher and of the referee shall be fixed by the court, or agreed upon between themselves and the applicant, and shall be paid by the applicant as a part of the costs of the proceeding.

SEC. 19. Provides that the written opinion of referee is to be filed before decree is made.

SEC. 20. Provides that applicant may withdraw application upon payment of fees at any time prior to issuance of certificate of title.

SEC. 21. Provides that on transfer of interest or death of applicant, proceedings may be continued.

SEC. 22. Provides that Registrar is to keep record of particulars of issuance.

SEC. 23. Provides that certificate of title is to be in duplicate; its contents, original to be retained by registrar.

SEC. 24. Provides form of certificate.

SEC. 25. In all cases where two or more persons are entitled as tenants in common to an estate in registered land, such persons may receive one certificate for the entirety, or each may receive a separate certificate for his undivided share.

SEC. 26. Provides that registered owner may consolidate several or divide up one certificate.

SEC. 27. Provides that certificate may be issued by order of court in lieu of lost duplicate; proceedings therefor.

SEC. 28. If an owner's name or description is incorrectly registered, or becomes changed (e. g. by marriage, adoption, divorce, etc.), the court, upon the filing of an application and proof of facts in the manner set forth in section [twenty-seven] of this Act, and the production by the owner of the duplicate certificate, shall order the registrar to issue a new certificate, with such changes as the case may require.

THE REGISTER OF TITLES.

SEC. 29. Provides for original certificate to be entered in register; memorials to be on latest certificate.

SEC. 30. Provides for receipt to be given for duplicate certificate on its issuance.

SEC. 31. In every case of first registration of land or an estate or interest therein, the same shall be deemed to be registered under this Act, when the registrar shall have marked upon the certificate of title, in duplicate, the volume and *folium* of the register in which the original may be found.

SEC. 32. Every transfer or registered land shall be deemed to be registered under this Act, when the new certificate to the transferee shall have been marked, as the case of the first registration; and all other dealings shall be considered as registered when the memorial or notation shall have been entered in the register upon the *folium* constituted by the existing certificate of title of the land. But, for the protection of the transferee or person claiming through any transfer or dealing, the registration shall relate back to the time of filing in the registrar's office the deed, instrument, or notice, pursuant to which the transfer memorial or notation is made.

SEC. 33. Provides that party aggrieved may bring action against registrar and others.

EFFECT OF REGISTRATION.

SEC. 34. The registered owner of any estate or interest in land brought under this Act shall, except in case of fraud to which he is a party, or of the person through whom he claims without valuable consideration paid in good faith, hold the same subject only to such estates, mortgages, liens, charges, and interests as may be noted in the last certificate of title in the registrar's office, and free from all others, except:

1. Any subsisting lease or agreement for a lease for a period not exceeding one year, where there is actual occupation of the land under lease. The term "lease" shall include a verbal letting.

2. All public highways embraced in the description of the lands included in the certificate.

3. Any subsisting right of way or other easement, however created, upon, over, or in respect of the land.

4. Any tax or special assessment for which a sale of the land has not been had at the date of the certificate of title.

5. Such right of action or claim as is allowed by this Act.

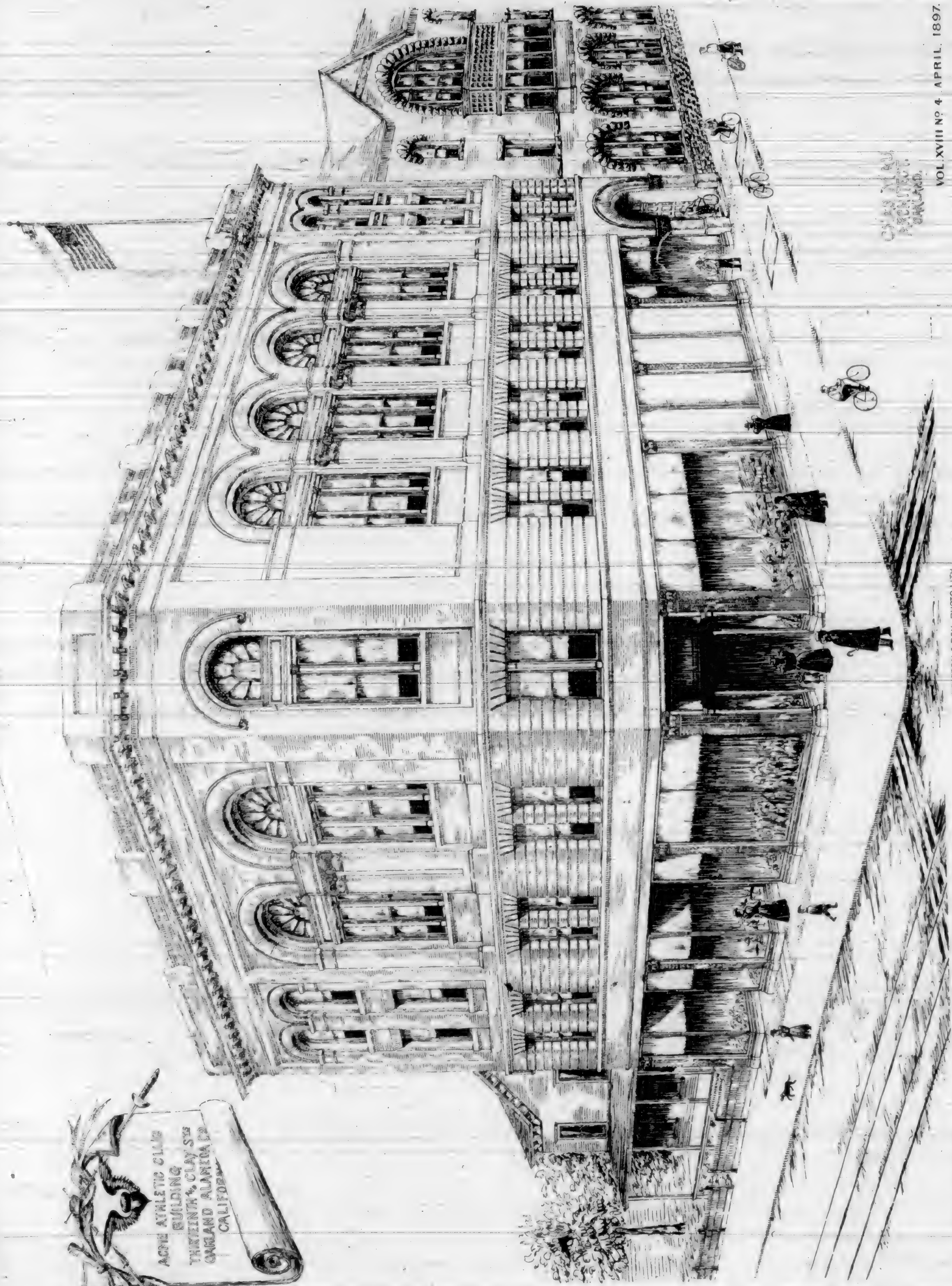
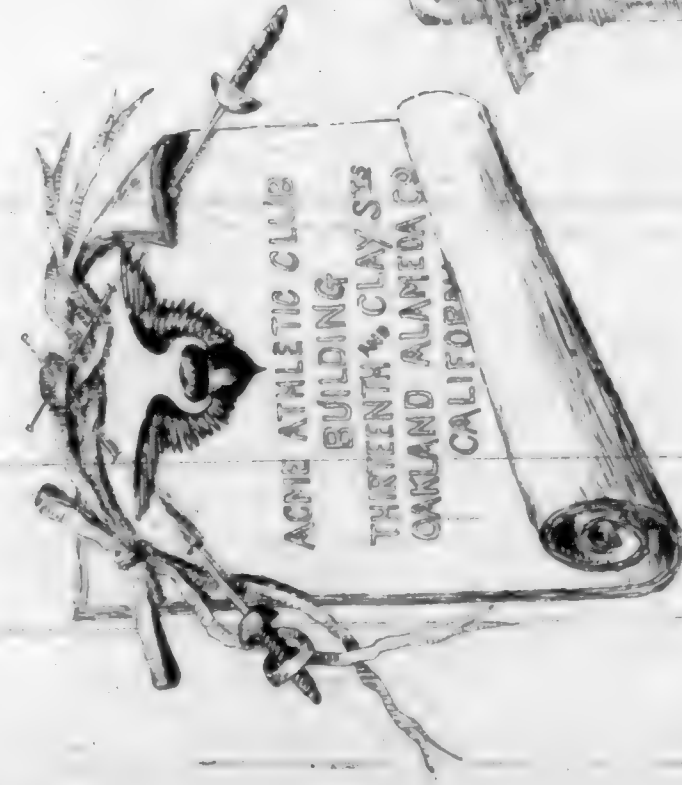
6. Liens, claims, or rights arising under the laws of the United States, which the Statutes of California cannot require to appear of record upon the register.

SEC. 35. After land has been registered no title thereto adverse or in derogation to the title of the registered owner shall be acquired by any length of possession.

SEC. 36. Except in case of fraud, and except as herein otherwise provided, no person taking a transfer of registered land, or any estate or interest therein, or of any charge upon the same from the registered owner, shall be held to inquire into the circumstances under which, or the consideration for which, such owner or any previous registered owner was registered, or be affected with notice, actual or constructive, of any unregistered trust, lien, claim, demand, or interest; and the knowledge that any unregistered trust, lien, claim, demand, or interest is in existence shall not of itself be imputed as fraud.

SEC. 37. In case of fraud, any person defrauded shall have all rights and remedies that he would have had if the land were not under the provisions of this Act; *provided*, that nothing contained in this section shall affect the title of a registered owner who has taken bona fide for a valuable consideration, or if any person bona fide claiming through or under him.

SEC. 38. If a deed or other instrument is registered, which is forged, or executed by a person under legal disability, such registration shall be void; *provided*, that the title of a registered owner, who has taken bona fide for a valuable consideration, shall not be affected by reason of his



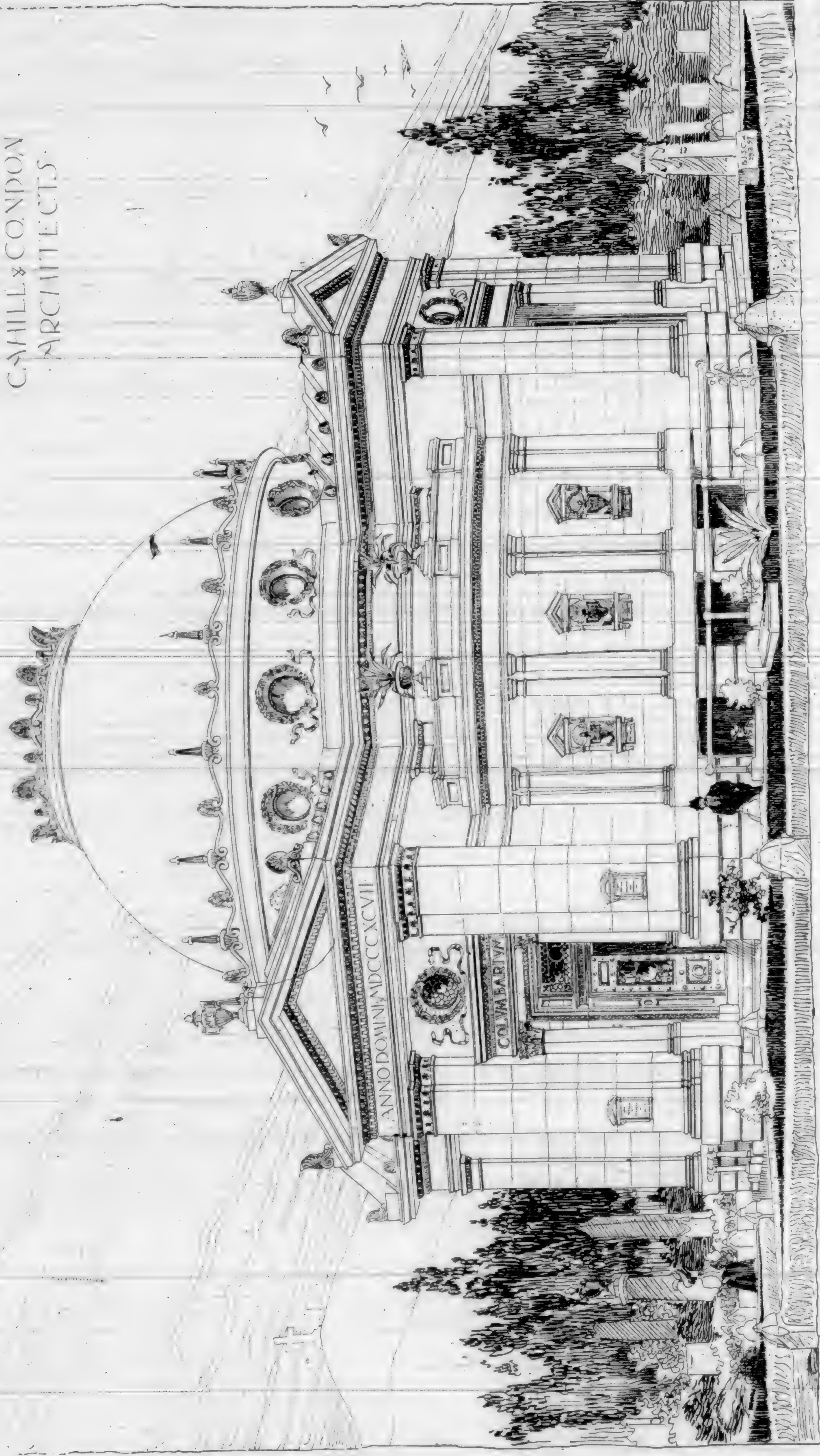
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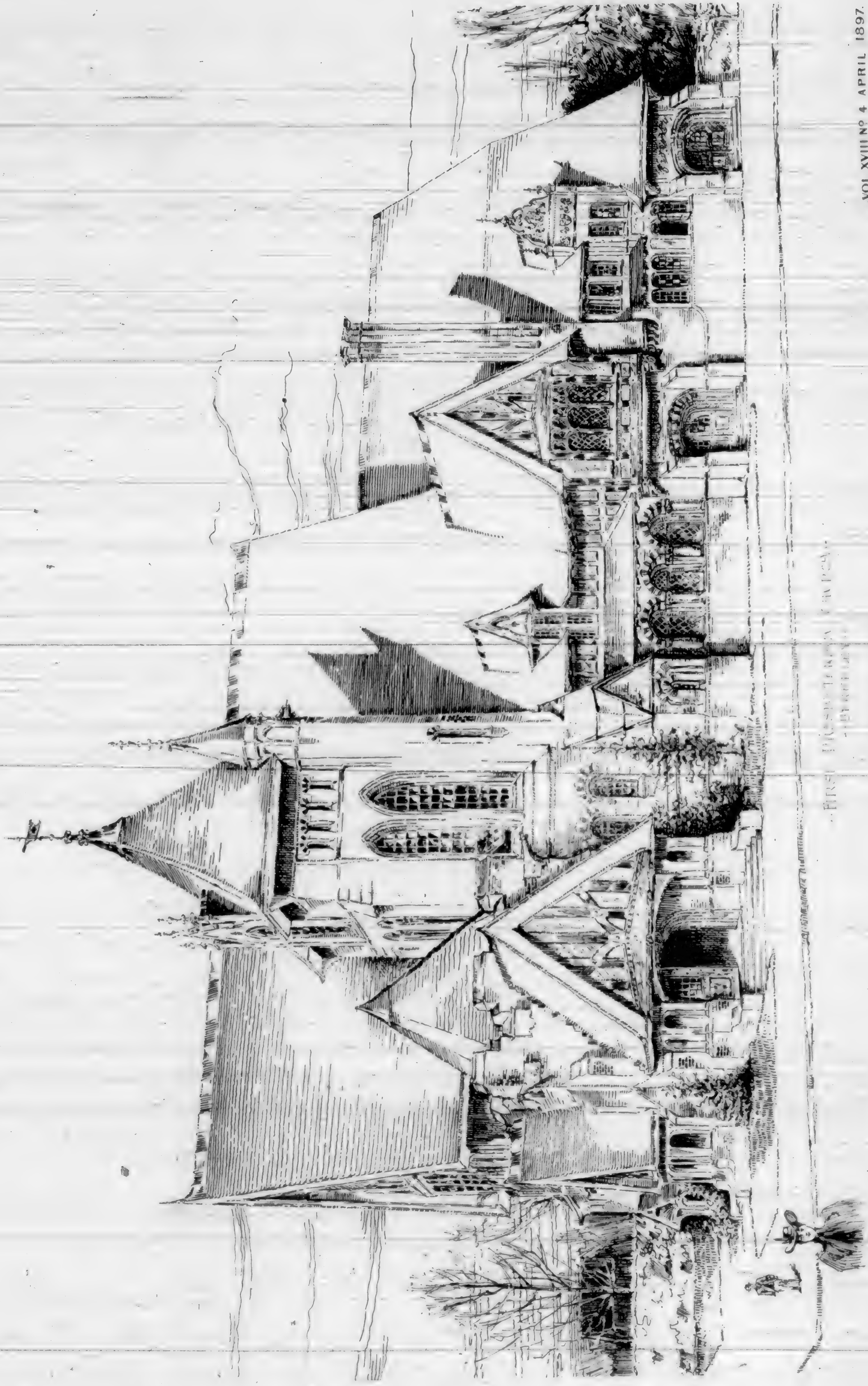
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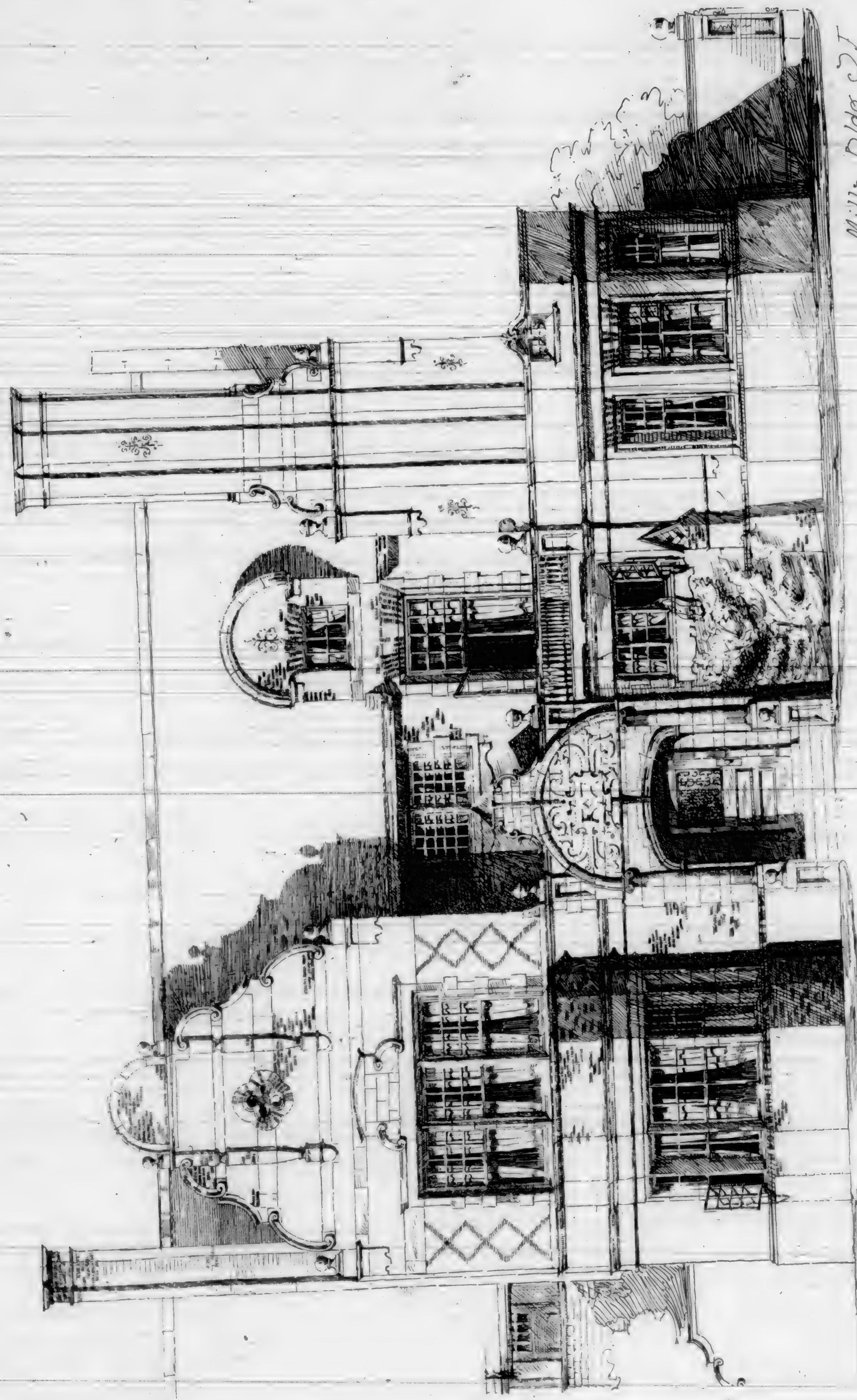
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