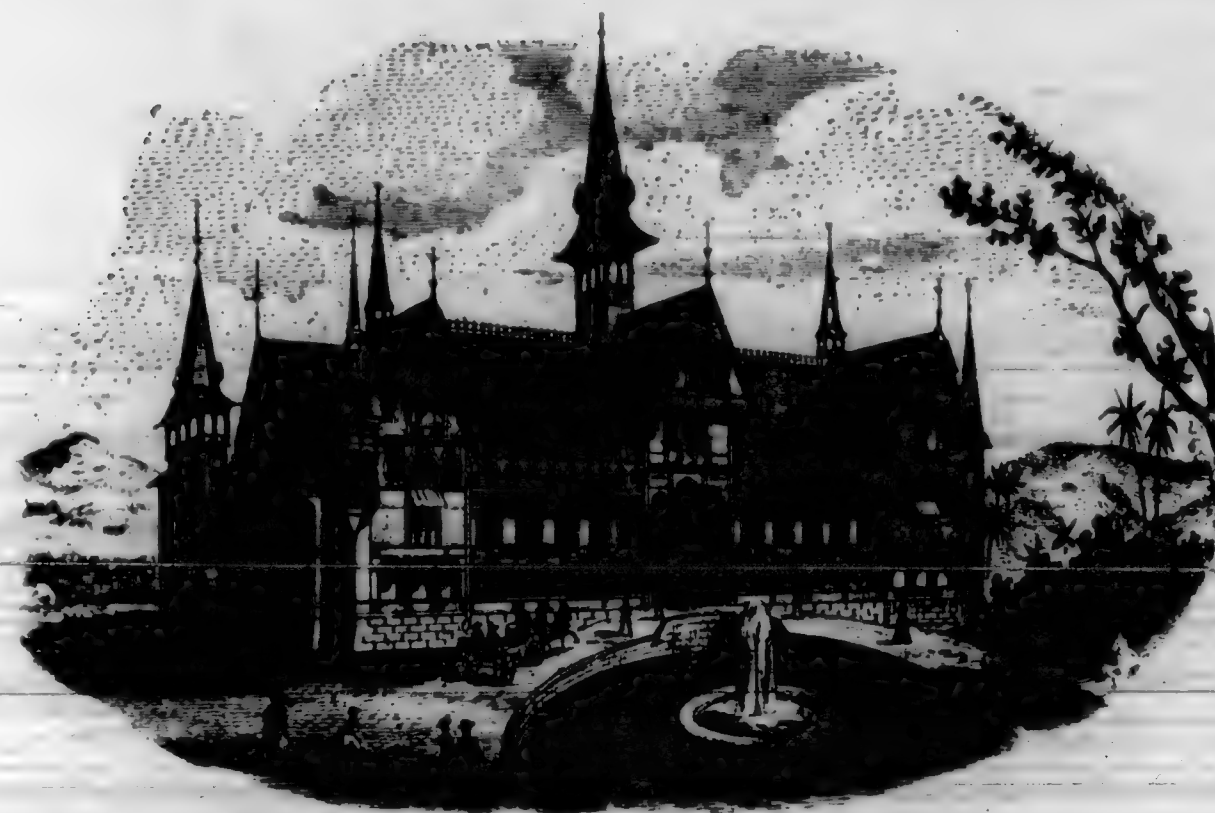




DESIGN FOR A COUNTRY HOTEL. G. BEHRND, Architect.

Ninth Building and Improvement Annual for Woodland and Yolo County.

Editor of the California Architect and Building News of San Francisco, California:

DEAR SIR:—Again we ask for space in your valuable columns to present a modest statement of the year's building and improvement for our city and county. And while it has not been what we wish it had, it presents an improvement over last year.

We will not attempt to discuss the cause or effect but state the facts as we understand them. Lumber has been too high, money too scarce, and the people would not build; having these three factors established we approximate the basis of our annual prosperity in moderate and careful investments.

The amount of capital annually expended naturally divides itself in three classes viz:

Private residences and individual investments report for this year, \$232,355.

Stock companies and improvement corporations, \$105,500.

Public enterprises including church and school expenditures, \$54,500.

Special mention of some of the most important included in our city and county list may be of interest to those desiring to know the progress of this locality. Woodland Street Railroad Co., \$11,000; Woodland Water Co., \$3,000; Woodland Improvement Co., \$5,000; Woodland Ice Factory, \$27,500; Woodland Woolen Mills Co., \$50,000; Yolo Brewery (Improvement) of Woodland Co., \$13,500; Yolo Land and Improvement Co. of Woodland, \$2,500; six Steam Raisin Drying and Packing Establishments, aggregate value, \$22,000; Christian Church of Woodland total investment \$20,000; Baptist Church and Parsonage, total expense, \$3,000; Hall of Records, \$28,500. Private residences and investments too numerous to mention, vary from \$1,000 to \$15,500. A large majority of the private residences present unmistakable evidence of architectural refinement and wealth. The following summary will substantially set forth the twelve months' enterprise of city and county:

WOODLAND CITY.		SUMMARY FOR 1888.		YOLO COUNTY.	
NO.	VALUE.	DESCRIPTION OF IMPROVEMENTS AND INVESTMENTS.	NO.	VALUE.	
38	62,100	Frame Dwellings.....	13	\$ 44,300	
12	16,500	Frame Improvements, principally Dwellings.....	3	10,500	
16	13,500	Frame Carriage Houses and Barns.....	7	3,500	
6	35,255	Frame Buildings for Manufacturing Purposes.....	2	3,500	
2	63,000	Brick Stores and other Business Places.....	4	9,500	
7	13,000	Frame Steam Raisin Drying Establishments.....	3	9,000	
3	9,000	Improvement Companies Expenditures.....			
2	23,000	Brick and Frame Churches and Improvements.....			
1	11,000	Street Railroad Co., Rail Road Depots.....	1	4,000	
1	5,000	Water Works Co., Irrigating Works.....	1	2,500	
2	29,500	Frame and Iron Warehouses.....	2	3,500	
1	2,500	Hall of Record and Justice Court Improvements.....			
1	2,500	Brick Dwellings.....	2	3,000	
1	2,500	Newspapers and Printing Offices.....			
90	\$232,355	Total No. and Value City and County.....	44	\$ 95,500	

Woodland and surroundings contributed to the above: Ninety buildings and improvements, valued at \$296,855; Yolo County, forty four building, valued at \$95,500. We must here mention that the county list is much below the actual amount, not having time to canvass the entire territory. This is con-

clusive by the excess as shown in the tax list, which is for improvements for 1888, \$474,161 more than 1887, or \$81,806 more than the whole amount of the above report. Final aggregate for city and county, 134 buildings and improvements, estimated value, \$392,355.

While the average for this year for each engagement is \$2,928, the next highest average being for 1884, \$2,702, it will also be seen by the following statistics that the aggregate amount, \$392,355, has only once in nine years been higher; with this encouraging item in view, the most sanguine should be satisfied.

For comparison we present a recapitulation of the annual statistics for the past nine years, from 1880 to 1888 inclusive, presenting the number of buildings, aggregate amount of capital, average value, largest single engagement and number of buildings under course of construction at the close of the year, but included in this list:

Year.	No. of Engagements	Aggregate Value.	Average Value.	Largest Single Engagement.	No. Buildings in course of construction at close year.
1880.....	54	\$126,730	\$2,346	\$28,000	2
1881.....	59	140,649	2,382	34,580	4
1882.....	71	169,940	2,393	15,500	1
1883.....	84	204,519	2,434	52,000	1
1884.....	102	279,664	2,702	28,000	5
1885.....	124	366,192	2,941	25,000	11
1886.....	172	580,565	3,375	22,000	30
1887.....	92	263,116	2,860	30,000	9
1888.....	134	392,355	2,928	50,000	14
Total.....	1,023	\$2,483,685	\$2,423		

The preceding statement presents the fact that 114 buildings have been the average number erected for the past nine years; average value, \$2,423 each; total amount, \$2,483,685. Competent judges estimate that the next nine years will more than double the above statement.

The foregoing facts are unmistakable evidence of substantial thrift and prosperity, and it is a noteworthy truth that the better class of all who contemplate building secure first the architect, and take no chances on hap-hazard principles.

The ultimate benefits and reward of any enterprise hinges firmly on the favorable starting; and to end well, it is essential to start on an intelligent foundation. If any person would avail themselves of the noble art of building, let them accept profitable hints and suggestions as set forth in the CALIFORNIA ARCHITECT AND BUILDING NEWS or of those skilled in the business, and secure a presentable exterior appearance with convenient and comfortable interior arrangements, and then let us look carefully at every part and allow only the best to become a part, from the lowest foundation stone to the highest final top, remembering that every error or defect in material or workmanship will eventually find its corresponding impress on the beauty and solidity of the edifice. As a rule we too often accept the apparent and entirely ignore the real and its most important mechanical adaptations; in this way many splendid appearing buildings are splendid shams, and while we are forced to acknowledge that decorative ornamental construction is no doubt the essence of much that is beautiful and pleasing in architecture, but like other goods things this too may be overdone. Now at this most important point the service of the skilled artisan becomes indispensable; he is required to stand abreast the times, remove obstacles, equalize and adjust harmony, combine mind and matter, vanquish all difficulties, in fact he must always stand the same energetic, ingenious, ambitious and invincible being, whose intellect cannot be confined, and whose energy the whole world is inadequate. No labor wears his industries; no obstacle arrests his onward career. Over difficulties of land and water, heat and cold, wet and dry, materials of every description, requiring all the combined forces to subdue and utilize, this conquerer moves on steady as the footsteps of time. In what limit of space shall this man of the present age find rest in the completion of his ever improving progress; and how can we determine the ultimate result that marks the desires of the onward march of the architect of the nineteenth century. This query can only be answered by those who enter this busy arena after we have been laid aside and forgotten. Carefully considering all of this, our true object and mission should be to pervade our entire surroundings with a diffusion of useful and industrial arts, desiring to produce unity and magnify individual cleverness, by accumulating knowledge of our own avocation, whereby we may all be better, greater, and wiser, securing a competency worthy of future emulation.

Accept our thanks for many courtesies shown in the columns of the CALIFORNIA ARCHITECT AND BUILDING NEWS during the past year. Trusting you may receive the liberal patronage of the public, which you so well deserve, we remain,

Respectfully yours,

GILBERT & SONS.

WOODLAND, Dec. 5, 1888.

Correcting an Error. Wasters vs. Primers.

In our issue of May 15th last, we published a letter from Merchant & Co., manufacturers and importers of the "Camaret" brand of Tin Plates. Unintentionally we made a blunder and we desire to publicly correct the same. In the letter as printed will be found the following:—"but when we assert that ninety seven per cent. of the roofers (as far as our own city is concerned) who upon receiving a contract will buy and put on wasters instead of primers, we state only a fact, and the advantage in specifying our brands will readily be seen by those wanting to secure only the best."

Instead of 97 per cent as above, it should be fifty-seven per cent. The first intimation of the blunder came from Portland, Or., and on examining original correspondence, we soon discovered that wrong figures had been used. To make sure, we wrote to Merchant & Co., Philadelphia. In their answer they were pleased that the blunder should have been noticed by friends in Oregon and they assure us that 57 per cent. was the figure that should have been used.

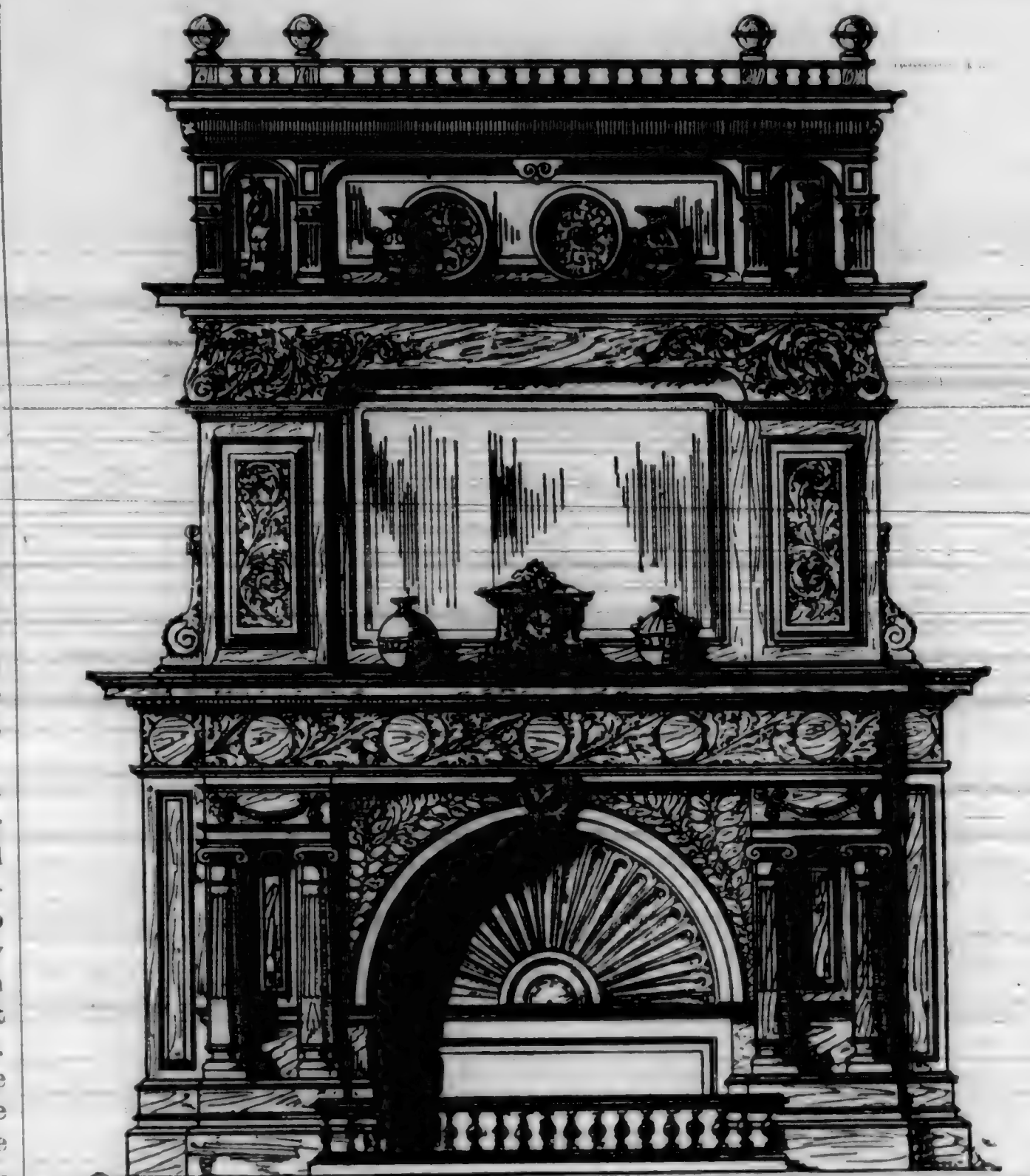
We sincerely hope that this correction will be noticed by a large proportion of those who read the original letter as the mistake will naturally cause some to pick to pieces a letter that otherwise contained a large fund of information in regard to one of the best brands of Tin Plate now in the market.

ARCHITECTURAL LEAGUE.

This interesting branch of the architectural profession has about completed its work of organization, and while its members seem to be deeply interested in its present and future success, there are some who enter upon the work with an enthusiasm and energy that presages results destined to be of inestimable benefit to the young men of San Francisco who have adopted the architectural profession as the sphere in which they propose to develop their talents, and qualify themselves to stand among the active and progressive men of the age, as masters of architecture, as far as mastery can be attained by the human mind during the short limit of human life. It is well and pleasing to every practicing architect who wishes well for the profession, to see the students organizing for mutual benefit. The man who is so far fossilized as not to understand and realize the great fact that there is power and profit in intelligent organization for right and good purposes, is to be pitied. The young gentlemen of the League have the best wishes, and at any time can command the services of any liberal-minded member of the profession in any reasonable way calculated to aid and assist them. Diligent office study and application is of the highest importance, but in this new relationship much will be learned and gained that would be but slowly and tediously acquired by the routine of office experiences. We say to young men, work together in union and true friendship, helping each other, in doing which the helper is benefited and mutual advantages gained.

MR. PERCY'S LECTURE.

On the evening of the 5th inst. Mr. Percy entertained the League and such members of the profession as were present, by a lecture on practical questions in construction. A most profitable hour was thus spent, and it is safe to say that every student present received information upon mechanical propositions that will be of lasting advantage in his future career. The principles of compression, tensile and shearing strains, strength and stresses, and important principles in construction were reviewed at considerable length, and was listened to attentively by the young men present.



DESIGN FOR A MANTEL.

The Architectural League is composed of draughtsmen and students connected with the various architects' offices. The officers are as follows: President, Geo. H. Sanders; Vice-President, L. S. Stone; Secretary, S. W. Hemenway; Treasurer, L. D. Deane; Trustees, J. F. Wieland, Aug. Borradaile, R. M. Turner, S. W. Hemenway, L. S. Stone, G. H. Sanders.

No Plans of Buildings Will be Furnished from the Office of this Journal.

We propose to use our best efforts to place before our readers the latest items and examples of architectural beauty as they are exemplified in this city. We do NOT propose, however, to furnish from this office, in any shape, plans or details, except as they are given in these pages, as exponents of the ideas of those contributing the same. Every inquiry received will be immediately handed to the party whose design may have called forth such notice. This rule will be strictly enforced.

Our Book Department for 1889.

We intend next year to keep a large stock of books on hand to meet the wants of architects, students, draughtsmen and mechanics. Great care will be used in their selection, and they will, in every case, be sold at publisher's prices.

A Reading Room for Architects, Students and Draughtsmen.

The new office of this Journal will be fitted up especially with the object of providing a reading room for all those engaged in, or connected with the architectural profession. Complete files will be kept of all the leading architectural and mechanical papers published in the United States, Canada and England, also catalogues, etc., of all firms connected with the building interests. All interested are cordially invited to step in and make themselves at home.

Practical, Plane and Solid Geometry.

III

BY ARTHUR SEYMOUR JENNINGS.

AREAS CONTINUED.

IN a previous paper it was endeavored to show the method by which any figure bounded by right angles might be reduced successively to a triangle, a rectangle and a square of equal area. The relative areas of squares should be thoroughly mastered at this point by the student. It is often required in practice to obtain a square containing a certain number of square inches. When the figure has a square root, as for instance, 4 or 9, all that is required is to set out the side of the

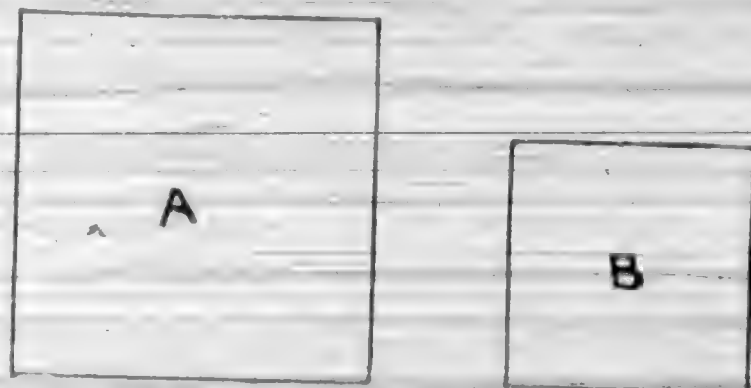


Fig. 1. Illustrating the area of squares.

square equal in length to the square root, 2 and 3 respectively, for, of course, a square of two inch side contains four square inches, and one of three inch side, nine square inches and so on. But where the number is a surd and has no square root the side of square may be obtained geometrically without difficulty. At this point it will be convenient to find one square equal in area

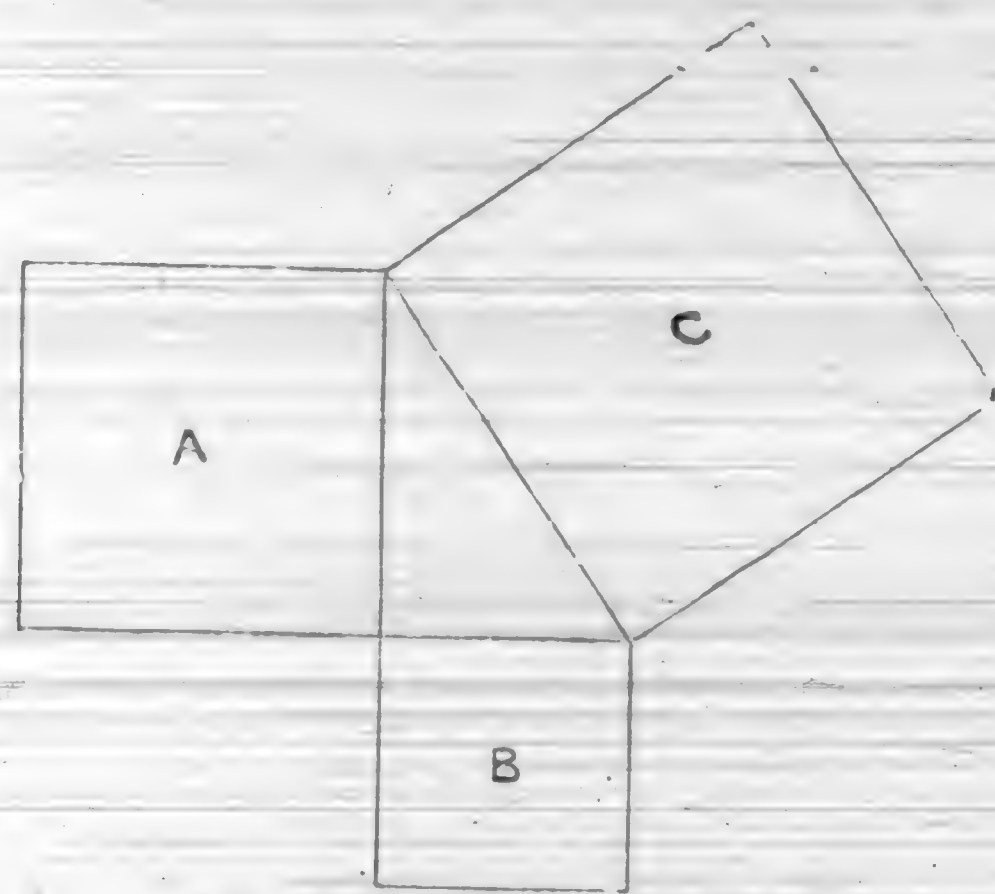


Fig. 2. One square equal to two squares.

to two given ones, for example, we wish to find a square equal in area to the squares A and B Fig. 1. This problem bears directly upon Proposition 47 of the First Book of Euclid. Draw a right angle and upon one side of it set off the side of the square A and upon the other the side of the square B.

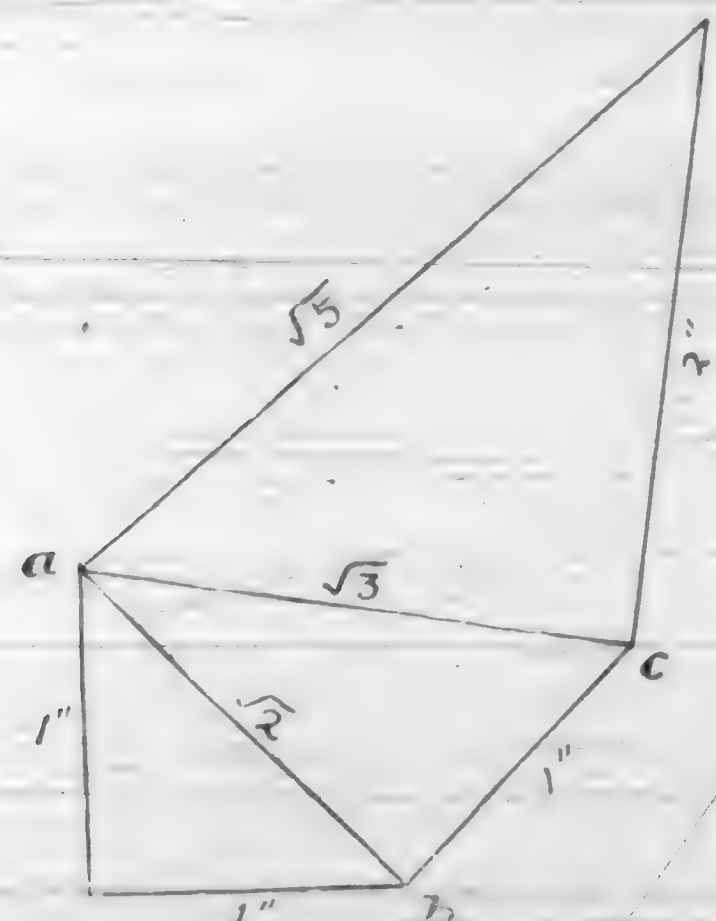


Fig. 3. The geometrical construction of the square root. Now draw a hypotenuse forming a right angle triangle. The square erected upon that hypotenuse will be equal in area to the squares upon the two other sides. Referring to Fig. 2 the squares marked A and B respectively which correspond with

the squares in Fig. 1 are equal in area to the square marked C. The practical application of this problem is clear. Supposing it is wished to obtain a square containing five square inches. If the square A be made of two inch side it will contain four inches and if the square B is of one inch side then the square upon the hypotenuse contains an area equal to the two together, viz:—five square inches.

To show geometrically the square root of any surd, say of 2, 3, 5, 6, etc., the same principle is adopted. Taking an inch as the standard unit set out a right angle and upon each side mark off one inch at a and b as shown in Fig. 3. Then the hypotenuse a. b. is the square root of two, or in other words the side of a square containing two square inches. So by setting off a line one inch long at right angles to a. b. at c and drawing another hypotenuse we have the square root of 3. The same means may be used indefinitely. Thus we have the square root of 5 and so on.

OTHER USEFUL PROBLEMS.

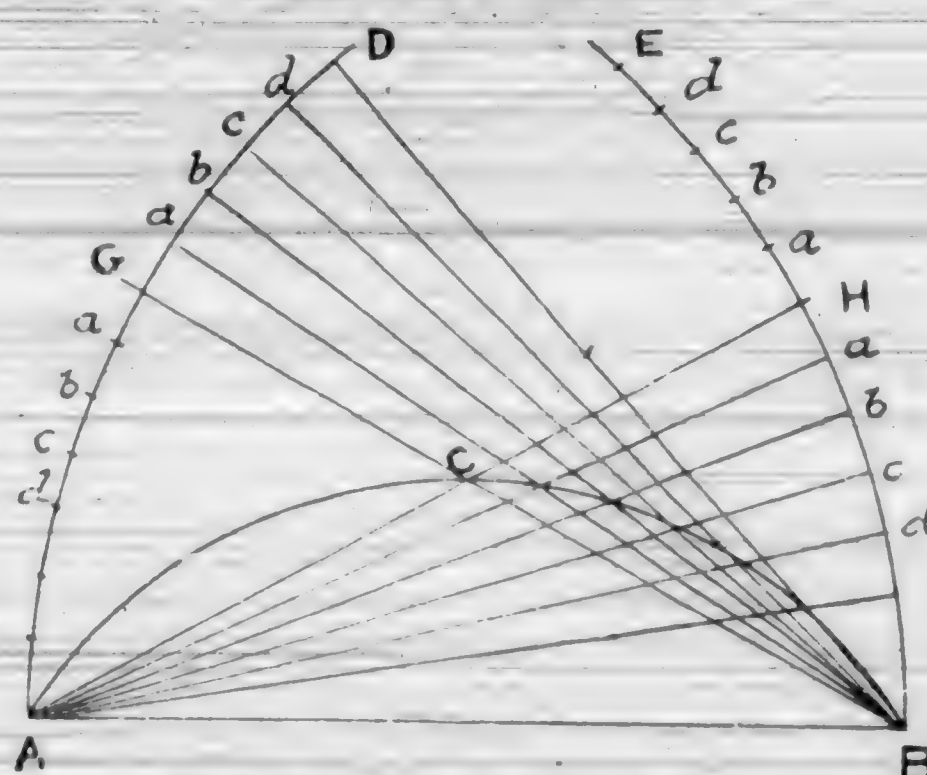


Fig. 4. Construction of Arc of Circle.

In the every day work of the draughtsman problems not infrequently arise which cannot be solved by the ordinary methods. For example, it is often required to set out the arc of a circle, say for the curve of an arch, when the rise is so small that the centre of the circle is practically inaccessible. In such cases the following method will be found to answer the purpose. Let A. B., Fig. 4, represent the span of the required arch, and C the rise. Join A. B. C. forming an isosceles triangle. Now with radius A. B. describe from A B respectively the arcs A. D. and B. E. Extend the lines A. C. and B. C. to meet the arcs at G and H. Now from G and from H set off with the dividers a number of equal divisions in both directions as at a, b, c, d, etc. Draw lines back to A and B respectively and where these

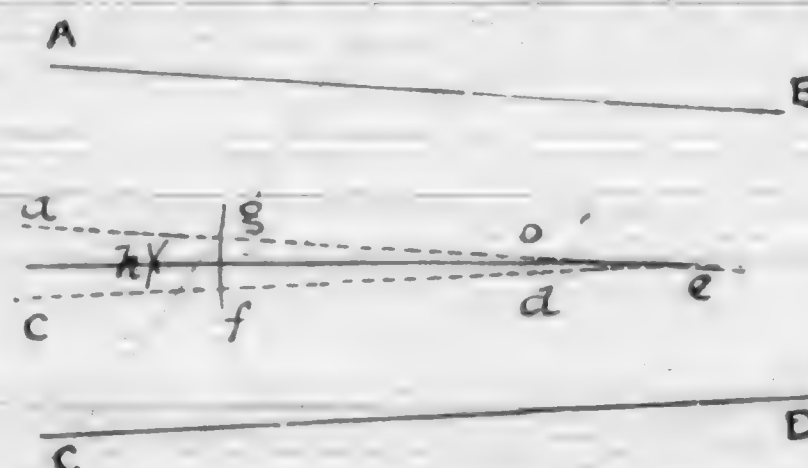


Fig. 5. To bisect the angle between two lines nearly parallel. lines intersect we have points in the required curve. Notice that the lines above G intersect with those below H. The construction will be clear on careful examination of Fig. 4 and the completion of the curve is effected by drawing by free hand the required curve through the points so obtained. For the sake of clearness the construction of only one-half of the curve has been shown. It will be understood that the method may be employed whenever the three points A B C are not in a straight line.

When two lines are inclined it is a very simple matter to draw a third one to bisect the angle which would be formed if they were produced. When, however, the lines are nearly parallel this cannot be conveniently done, and a different method becomes necessary. Let A. B., C. D., Fig. 5 be two lines nearly parallel, and it be required to draw a third line between them that will bisect the angle. Draw the lines a. b., c. d., (shown dotted) parallel respectively to A B and C D and in any convenient position so that they intersect as in the point e. Now bisect the angle between them by the usual method, viz: from e describe any arc f. g. and from f and g describe two other arcs intersecting at h. A line drawn through h and e will bisect the angle g. e. f. and hence the angle formed by the lines A. B. and C. D. if produced as was required.

(To be continued.)

THE LUMBER INDUSTRY.

Seven Large Merchant Sawmills at Seattle.

Sawing Capacity of More Than Half a Million Feet Per Day—The Leading Item of Local Manufacture.

THE amount of lumber required in a new and rapidly growing city like Seattle is something amazing, and it is only when one takes the trouble to investigate the matter and ascertain the facts, that a due and realizing sense of magnitude of the demand can be arrived at. A reporter of the *Post-Intelligencer* was yesterday detailed to work on this subject and to get these facts and his report is given below. Like everything else pertaining to the progress of this fair city, it will be found very interesting reading.

There are seven sawmills in active operation in Seattle at this time, namely: The Stetson & Post mill, the Commercial, the Oregon Improvement Company's mill, the Hall & Paulson mill, the Western mill, Newell's, and the Lady Washington mill.

STETSON & POST'S MILL.

Is situated at the foot of Commercial street, and together with the sash and door factory and the lumber yard occupies an entire block. Eighty-five men are employed in the sawmill and lumber yard. The daily cut of lumber at the mill is on an average of about 70,000 feet.

In the sash and door factory and planing mill 35 hands are employed, and they work 12½ hours per day, 10 hours being a day's work, and the men are of course, paid accordingly. Their line of manufacture comprises mouldings and casings, all sorts of house furnishing brackets, etc. This firm has orders for the work on several big jobs, such as the Boston Improvement Company's two new buildings on Second and Columbia streets and the Occidental hotel. The business done during the past four months, more especially in the factory far exceeds anything ever done by the firm during any past corresponding period. Last year the mill cut between sixteen and seventeen million feet of lumber, and the total sales amount to \$296,516.25. A new boiler and engine have recently been put in, and half a dozen new planers, together with new sash and door machinery, is on the way from the east.

THE COMMERCIAL MILL COMPANY'S PLANT

Is situated on the water front, between Marion and Columbia streets. It comprises a saw and planing mill, sash and door factory and box factory. The number of men employed is 104, of whom 24 work at night in the saw mill. Forty-eight men work in the mill, 28 in the sash and door factory, and four in the box factory. The quantity of lumber cut daily is from 50,000 to 70,000 feet, most of which is for home consumption. The box factory is vainly endeavoring to keep up with the demand for boxes required for crackers, soap, medicine and mineral waters.

THE OREGON IMPROVEMENT COMPANY'S MILL

Is situated on South Sound street, at the Columbia and Puget Sound Railroad Company's wharf. The number of men employed is fifty and the daily cut of lumber runs from 40,000 to 50,000 feet. The mill began operations only about six months ago, and such has been the increase of business that the company have been obliged to keep on increasing their capacity right along. In a month or two they expect to have their sash and door factory in operation. Their lumber is used largely at the company's mines at Newcastle and Franklin; but a very considerable quantity of it, perhaps the most of it, is ordered for building purposes in this city.

THE HALL & PAULSON MILL

At the head of the bay, cuts an average of about 12,000 feet per day. An important part of their company's business is the manufacture of shingles. About fifteen men are employed at the mill.

THE WESTERN MILL

Is at Lake Union, and cuts about 40,000 feet of lumber each day. It is all used in or near Seattle. The number of men employed is about fifty on an average.

The Lake Washington mill, known as Phinney's mill has a capacity of 15,000 to 20,000 feet per day, and like all of the others, its product is chiefly used here at home. Twenty to twenty-five men are on the pay roll.

NEWELL'S MILL.

At South Seattle, employs thirteen men, counting those engaged in getting out the logs. The mill has a daily capacity of 12,000

feet, the daily cut ranging from 5,000 up to the latter figure. In connection with the mill is a chair factory, of small scope at present, but which bids fair to develop into a big business before long. The legs of these are of maple, the rungs of ash. About 400 chairs per month are turned out. They are all shipped to Stockton, California, where seats of rawhide are put into them, and they are sold at a handsome profit. Adjoining the present mill, Mr. Newell has about completed the erection of a larger and better mill, one which will be capable of producing a daily output of 25,000 or 30,000 feet.

THE LUMBER INDUSTRY IN GENERAL.

In addition to these mills, most of which are occupied in supplying Seattle's insatiable demands for lumber, there are several outside mills, situated on the Sound, at distances of three, ten and thirty miles—which are sending lumber to this city. Then the Blackman Brothers, of Snohomish, and a mill at Tumwater ship, about 25,000 feet to this city daily. The Puget Mill Company and the Coleman mill at Cedar Mountain (on the line of the Columbia and Puget Sound railroad) are also shipping lumber to this point every day.

A number of additional mills, new ones, either now in process of erection or soon to be erected, will materially help to solve the present difficulty of obtaining a full and prompt supply of lumber. The Port Blakely mill, situated at Port Blakely, ten miles from this city, across the Sound, was totally destroyed by fire two or three months ago. A new mill with a daily capacity of 40,000 is, and has been for two months past, engaged in cutting lumber for the company's new mill, which, when completed, will be not only the largest mill on Puget Sound, but in the world. The main building will be 101x500 feet in length, and the boiler room about 60x100 feet. The latter will contain two nests of eight boilers each, and will be supplied with the latest and best machinery. The mill will have a daily 10-hour capacity of 250,000 feet, or 400,000 when run night and day, as it certainly will be for some time at least. Another large mill about to be erected at West Seattle, opposite the city, by the Satsop Railroad Company, will have a capacity of 150,000 feet per day.

The Yesler Wood, Coal and Lumber Company will soon have a mill in operation on Union Bay, four miles from the heart of the city. Its capacity will be 60,000 feet per day of ten hours. The machinery has already been ordered, including an engine of 148 horse power which Meran Brothers, of this city, are now building.

THE FREMONT MILLING COMPANY

Is another new saw mill corporation that will proceed to business forthwith, a site having been obtained and the ground broken on the shore of Lake Union. Its capacity will be identical with that of the new Yesler mill just mentioned.

While on this subject of mills and lumber it is proper to add that there are several furniture factories and planing mills in this city which deserve at least passing mention. The Hall & Paulson Furniture Company is one of these. Their manufactory is at the foot of Commercial street, directly opposite the Stetson & Post Mill. They employ 25 men, and have all they can possibly do supplying orders for all kinds of furniture, bank fittings, saloon fixtures, house finishing, etc. Their goods are chiefly bought by city people, the remainder going to other towns on the Sound.

THE MECHANICS' MILL

Is another of these. It is on Yesler's wharf, near the foot of Mill street. They run a sash and door factory and a planing mill. They also do business as contractors and builders. In the mill proper there are 37 hands employed, and as many more on outside work that they have contracted for. The old mill, which was burned last December, gave employment to but 20 men; now, it will be perceived, they have nearly double that number. They pay from \$1,000 to \$1,200 per week in wages.

The Lake Union Furniture Company, which occupies the upper story of the Western mill at Lake Union have from 25 to 30 men in their employ at the factory and at their city sales-room. They find a ready market for all their wares.

The Eclipse planing mill is a new concern, started a few weeks ago, at the foot of Commercial street, adjoining Hall & Paulson's mill. They operate with a limited force at present—five men. They will soon, doubtless, be enlarging their premises and increasing their force, too.

The wages paid to the men in these factories varies all the way from \$2 and \$2.25 per day for helpers to \$3.50 to \$4 and even \$4.50 per day for skilled mechanics.—*Seattle Post-Intelligencer*.

PRACTICAL PAPER HANGING.

THE following upon this timely topic is from one of our contemporaries. It says: "The primary essential to commence a job of paper hanging is to have the tools. Any 'Jack' can work with a full set of tools, but it takes a good mechanic to work with poor ones. The best tools are the cheapest in the outcome and are the most satisfactory.

"An eight or ten inch bristle smoothing brush, a six to eight inch paste brush, a fourteen to sixteen inch pair of shears, a paper knife, seam roller, smoothing roller for borders and decorations, a straight-edge, plumb-bob, chalk line, paste pail, size kettle, paper boards, trestles and step-ladder, these are the necessary tools for general work, though it is necessary to save time and trouble to have besides these tools a good sized kalsomine brush and a double width putty knife.

The next we need to proceed with is a bucket of paste. Use flour paste, except on very rare occasions when the tints are very delicate. The best patent flour is the most adhesive, and retains its consistency much better than starch.

Take a common patent pail and put in one-half gallon of flour. Stir in enough cold water to mix a flour batter; work out all the lumps thoroughly; have ready three gallons of absolutely boiling water, and stir this until you have enough to cook it. Now pour a little cold water over the top to prevent skinning over until you are ready to use it. You can thin it down at pleasure.

If the paper put on is not a metallic ground put in four or five ounces of alum in the paste. This will prevent its turning sour and hasten drying. Should the paper be metallic, use a little carbolic acid in place of alum, as alum is liable to turn gilt dark.

If the room you are going to paper is a hard finish, and not very badly smoked up, all that is necessary to prepare the walls is to brush them with a broom. Should they be smoked and dirty, it is best to go over them with a weak solution of glue and alum. If the walls have been papered before it is necessary to go over them again with a putty knife and cut the old paper off, pull out all nails, and with some plaster of Paris mixed with paste heal all the bad places.

If the walls have been whitewashed, doctor them with a strong solution of vinegar. Having the walls ready, lay a roll of paper on the boards, and with your straight-edge, which should be six feet long, measure the height to where the border will come and about an inch below the baseboards, and cut the strips off. Match the next strip to the top of the previous one and cut enough strips to cover the room.

To ascertain the number of strips required, take a roll of paper and count the number around the room. Now turn the paper over if you have trimmed it; put the trimmed edges towards you and pull the first over, so that it covers the other strips. This is to prevent the paste from forming on the trimmed edge and making bad work.

Some paper-hangers never trim the paper till after it is pasted. This procedure has some good features and some bad ones, which we will not discuss here. Beginners will find it better to have

the paper trimmed beforehand. Commence at one end of the room and hang the slips as nearly perpendicular as you can.

Always brush the paper from the centre down and at either side. If you have wrinkles in the paper pull it off to where the wrinkle is and brush it out from the centre. Run the shears along the paper at the top of baseboards, and cut off nice and even. Never allow the paper to look haggled or uneven around the base, and cut it close down, but not overlapping.

When you come to an opening let the paper overlap, and trim with the paper knife as you work a saw. You will next need short strips, but do not run them beyond the opening unless the piece cut out of the other side will fill up the opposite; rather lap back again to be sure of a perfect match.

When you come to a corner, never lap the paper around it unless the space is very narrow. Fold up the strips at both ends measure the distance with your ruled shears, lay the straight-edge on the paper, mark the distance just a little beyond the corner, and cut. In this manner you will always have corners that will be square and stay in position.

Use the same roller, and roll the seams nicely as you go. Cut the border in such lengths as can be easily reached to put on, paste and double up at both ends, so that the lines meet exactly, and cut."

Regarding the Inadequate Remuneration of American Architects.

NEW YORK, October 6, 1888.

SIR:—Mr. Henry Rutgers Marshall is quite right in saying, that five per cent. on cost should be considered the minimum for an architect's services. Of course he means a competent architect. I have held that ground for years, and have repeatedly, in court, testified my understanding that the rates recommended by the American Institute of Architects are minimum rates. But if (as Mr. Philbrick says in the same column) only one out of fifty students in the Massachusetts Institute of Technology—or about one a year during the last twenty years—takes or has taken the full architectural course (which may be considered a tolerable equivalent for the old time three years' training in the office of a practitioner) what guarantee has the public that they will get the worth of even the minimum?

Mr. Marshall is also measurably right in saying that the remedy for the evils he deprecates lies in the hands of architects themselves. But what is more important than anything else for ameliorative purposes is that architects throughout the land should present a united front against Philistinism. Every architectural society in the country, large or small, well-known or obscure, has based itself on the Institute schedule. Now let them be co-ordinated on other points and they have the future to themselves.

A. J. BLOOR.

Please forward your subscription immediately for 1889. We promise for the new year a journal of greater excellence than we have as yet produced. Direct to present office until notified of the change in location.

ESTABLISHED MARCH 17, 1868.

W. J. HENNEY & CO.

DIRECT IMPORTERS OF
RELIABLE
FURNITURE & CARPETERIES.
MANUFACTURERS OF
ART DRAPERIES, FINE BEDDING.

18, 20 & 22 ELLIS STREET
NEAR
MARKET & STOCKTON
SAN FRANCISCO, CALIFORNIA.

Old Homes Made New	50
The Suburban Cottage	1 50
Homes for the People	2 00
Lefell's House Plans	2 00
Water Closets	1 00
Sewer Gas	1 25
Steam Engine Catechism	1 00
Builder's Guide	2 00
Cozy Homes	25
How to Paint	1 00
Cutting Tools	1 50
Universal Assistant	2 50
Rural Architecture	1 50
Wonders of Art	1 25
Grimshaw on Saws	4 00
Dwellings, Reed	3 00
Plumbing, Appliances	1 50



Annual Building Summary.

COMPARISON.

The number of new buildings, and the value of the same, for each month of the present year, is clearly shown in the accompanying table:

	FOR FIRST SIX MONTHS.					
	No	Frame Buildings Value.	No	Brick Buildings Value.	Repairs Value.	Total Cost.
January	60	\$190,200	4	\$279,000	13	\$29,100
February	51	186,500	2	258,000	8	18,200
March	36	147,200	1	10,000	8	31,600
April	56	284,950	5	44,300	13	29,100
May	55	269,600	10	331,520	14	37,300
June	72	396,750	9	84,400	20	92,100
Total	330	1,475,200	31	1,007,220	76	237,400

	FOR SECOND SIX MONTHS.					
	No	Frame Buildings Value.	No	Brick Buildings Value.	Repairs Value.	Total Cost.
July	50	305,600	5	410,000	16	\$107,400
August	46	206,000	6	236,000	27	108,300
September	68	424,200	4	97,000	19	37,600
October	47	179,100	6	192,000	10	49,100
November	70	305,400	7	544,000	14	17,000
December	48	203,500	3	90,000	8	12,200
Total	329	1,623,800	31	1,569,000	94	331,600

This making a grand total for the year of

659 frame buildings, value	\$3,099,000
62 brick buildings, value	2,576,220
170 additions, etc., value	569,000
891 Grand total, value	\$6,244,220

The number of building engagements, and their value, since 1880, are as follows:

1880—397 engagements, value	\$1,754,435
1881—533	3,799,732
1882—785	3,896,212
1883—803	5,261,689
1884—1,127	6,202,807
1885—1,457	7,043,999
1886—1,148	6,401,669
1887—1,093	6,605,954
1888—891	6,244,220

The year 1888 has about closed, and as compared with its predecessor, most certainly is a very gratifying one, as far as building activities are concerned. Since the bonanza year of 1885 the number of new improvements has steadily declined. The value of the buildings, however, has been exceeded by only three years since 1880. This is owing to the several large buildings that have been started in the past few months, among which are the Chronicle Building, the new engine house for the Howard Street road, Hayward's Tenement Building and others.

In general—Business in building circles is fairly active. Mechanics of all kinds are here in abundance. Wages for masons are steady. Carpenters' wages are weak, owing to the great number of men who have come here from the southern part of the State. The price of lumber is about \$14 per M rough, with the advantages in favor of buyer. Poor draughtsmen are here in abundance, good ones scarce. Prospects were never better for a large building movement next year.

CITY BUILDING NEWS.

There is no Paper or Journal on the Pacific Coast that pretends to give a Full Report of Building News, except the

CALIFORNIA
Architect and Building News.

Alemay near 17th street, two-story frame. Owner, G. Larsen; cost, \$1,800.

Bartlett near 25th, additions. Owners, Robinson; cost \$500.

Brannan near 5th, two-story frame. Cost, \$1,200.

Collingwood near 17th, additions. Cost, \$700.

Clay and Laguna, painting; owner, Jno. A. Hooper; architects, J. C. Mathews & Son; contractor, Geo. Eggers; cost, \$1,337.99; signed, Nov. 27th; filed, Nov. 30th.

75 per cent as work progresses; balance, 35 days.

Dolores, near 23d, frame building. Owner, Jas. Thorn; architect, R. Warren; contractor, Rich. Mowry; cost, \$2,780; signed, Nov. 26, 1888; filed, Nov. 27, 1888; limit, May 1, 1889; surety, J. J. McKinnon; amount of bond, \$2,780.

1st payment, when ready for mortar, \$1,000; 2d, when trimmings are on, \$900; 3d, the usual 35 days.

Eddy and Franklin, residence. Owner, G. Palache; architect, Pissis & Moore; contractor, A. McElroy; cost, \$14,695; signed, November 8th; filed, November 23d; limit, 200 days.

1st payment, \$1,500; foundations in, \$2,000; framed, \$2,000; brown coated, \$2,000; inside plastered, \$2,000; ready to paint, \$1,500; completed, \$3,605, 35 days.

Eddy and Franklin, plumbing. Owner, G. Palache; architect, Pissis & Moore; contractor, Fritz & Kean; cost, \$1,094; signed, November 8th; filed, November 23d.

1st payment, \$400; roof work done, \$400; completed, \$294, 35 days.

Fulton between Buchanan and Webster, carpenter work. Owner, National Brewing Co.; architect, W. Winterhalter; contractor, F. Weinohl; cost, \$4,200; sureties, Martin Bahrt, L. Heydmaher; signed, October 25th; filed, November 21st.

1st payment, \$1,000; floor joist laid, \$1,000; roofed, \$1,000; floored, \$1,200, 35 days.

Fulton and Scott, two-story frame building. Owner, Lulu C. Robinson; architect, J. C. Robinson; contractor, J. B. Gonyeau; cost, \$5,000; sureties, F. P. Latson, C. Hanson,

\$2,000; signed October 15th; filed, November 21st; limit, 90 days.

1st payment, \$1,667; brown coated, \$1,666; completed, \$1,667, 35 days.

Fulton, between Buchanan and Webster, brick work. Owner, National Brewing Co.; architect, W. Winterhalter; contractor, McGowan & Butler; cost, \$19,750; signed, Oct. 6th; filed, Nov. 21st; sureties, C. S. Holmes, J. G. Seibert; limit, 100 days.

1st payment, \$7,000, ready for 1st floor beams; \$4,750, ready for 2d story beams; \$3,000, walls up to top floor beams; \$5,000, 35 days.

Fulton, between Buchanan and Webster, iron work. Owner, National Brewing Co.; architect, W. Winterhalter; contractors, Sims & Morris; cost, \$13,540; sureties, J. W. Farren, J. W. Sims; signed, Oct. 6th; filed, Nov. 21st; limit, 60 days.

1st payment, \$6,000, steel beams ready; \$3,000, 1st tier girders and beams laid; \$2,000, 2d tier girders laid; \$2,540, 35 days.

Folsom and 16th, frame building. Owner, Jno. Ward; architect, M. Welsh; contractor, J. F. Logan; cost, \$4,300; signed, Nov. 19th; filed, Nov. 20th; limit, Feb. 19, 1889.

1st payment, \$1,000, framed; \$800, window frames set; \$800, brown coated; \$800, standing finish on; \$900, 35 days, or all bills paid.

Folsom, W. 12, frame building. Owner, Kate McFarle; architect, Geo. M. Salsbury; contractor, Geo. M. Salsbury; cost, \$5,300; signed, Nov. 23, 1888; filed, Nov. 28, 1888.

limit, 90 days; sureties, Wm. S. Jordan, L. A. Ackman; amount of bond, \$5,300.

1st payment, \$1,325, framed; \$1,325, enclosed, \$1,325; rough plastered; \$1,325, 36 days after

Folsom, between 9th and 10th, two-story frame; Owner, John Ward; architect, M. J. Welsh; contractor, J. F. Logan; cost, \$4,500.

Florida between 24th and 25th, one-story frame. Owner, E. A. Jungbluth; architect, J. Gash; contractor, G. D. Nagle; cost, \$3,000.

Golden Gate Ave., near Willard, one-story frame. Owner, George Keck; architect, L. Hippely; contractor, R. Parker; cost, \$1,750.

Grove, near Van Ness avenue, three two-story frames. Owner, John McGuire; architect, B. J. Clinch; contractors, Doyle & Sons; cost, \$9,000.

Golden Gate Ave. and Jones, four-story and basement, brick. Owner, Lizzie W. Moffatt; architect, Geo. Moffatt; contractor, Chas. C. Terrill; cost, \$53,975; sureties, Chas. C. Havens, F. and B. Joost; signed, November 5th; filed, November 13th; limit, 160 days.

1st payment, 75 per cent, as work progresses on 15th of each month. Balance, 35 days.

Greenwich and Van Ness Avenue, move, repair and build. Owner, Jno. McGuire; architect, B. J. Clinch; contractor, R. Doyle & Son; cost, \$8,448; sureties, Jno. McCarthy, J. Wagner; signed, October 29th; filed, November 17th; limit, February 10th, 1889.

1st payment, \$2,000; enclosed, \$2,000; brown coated, \$2,300; completed, \$2,148, 35 days.

Geary street No. 807, additional story. Cost, \$2,500.

Hayes and Laguna, three-story frame building. Owner, Judah Boas; architect, Chas. R. Wilson; contractor, Wm. T. Commary; cost, \$7,000; sureties, F. P. Latson, P. L. Archibald; signed, November 1st; filed, November 23d; limit, 90 days.

1st payment, \$1,750; framed, \$1,750; brown coated, \$1,750; completed, \$1,750, 35 days.

Haight and Steiner, building. Owner, Leon di Nola; architect, Wm. Mooser; contractor, Kincaid & Thompson; cost, \$7,500; sureties, J. F. Kennedy, F. P. Latson; signed, Nov. 19th; filed, Nov. 20th; limit, 110 days.

1st payment, 75 per cent as work progresses; balance, 35 days.

Haight near Pierce, two-story frame. Owner, L. Friedlander; architect, P. S. Barber; contractor S. C. Buzzell; cost, \$4,500.

Howard, near 22d, alterations. Owner, A. C. Heister; architect, Chas. I. Havens; contractor, Wm. T. Commary; cost, \$3,081; signed, Nov. 27th; filed, Dec. 1st; limit, 65 days.

1st payment, \$700; enclosed, \$700; window frames set; \$800, completed; \$881, 35 days.

Howard, near 22d, additions. Owner, A. C. Heister; architect, C. I. Havens; contractor, W. T. Commary; cost, \$3,500.

Jones and Turk, four-story frame building. Owner, Emma F. Van Winkle; architect, A. J. Barnett; contractor, A. G. Fitzpatrick; cost, \$11,455; sureties, Chas. F. Doe; signed, November 20th, file 1, November 23d; limit, 130 days.

1st payment, \$2,000; roof boards on, \$3,000; brown coated, \$2,000; finish on, \$1,590; completed, \$2,865, 35 days.

Kearny and Geary, carpenter work. Owner, M. H. De Young; architects, Burnham & Root; contractor, P. Crichton; cost, \$41,500; signed, Sept. 27th; filed, Nov. 19th; limit, 60 days.

1st payment, 75 per cent as work progresses, on 15th of each month; balance 35 days.

Kearny and Geary, metal work. Owner, M. H. De Young; architects, Burnham & Root; contractor, J. F. Forderer; cost, \$5,930; signed, Sept. 27th; filed, Nov. 19th; limit, Sept. 1, 1889.

1st payment, 75 per cent when half completed; balance on completion.

Leavenworth and Clay, two flats. Owner, Isaac L. Hoffman; architect, Chas. R. Wilson; contractor, F. V. Steinman; cost, \$6,950

sureties, F. P. Latson, Lewis & Swift, \$4,000; signed, November 22d; filed, November 23d; limit, 100 days.

Michigan and Napa, building. Owner, P. McCormick; architect, Jno. J. Clark; contractor, T. Sullivan; cost, \$7,572; sureties, T. Sullivan, Sr., B. Joost, \$6,000; signed October 31st; filed, November 21st; limit, 100 days.

1st payment, \$1,500; brick work done, \$1,500; enclosed, \$1,500; brown coated, \$1,500; inside finish on, \$1,572, 35 days.

Market and Ridley, five one-story frames. Owner, Mrs. Bertha J. Fisher; architect, C. I. Havens; contractor, Doyle & Son; cost, \$5,000.

Ninth and Tehama, three-story frame. Owner, P. Kelly; architect, T. J. Welsh; contractor, C. E. Dunshoe; cost, \$5,000; sureties, Geo. F. Shaw, J. F. Kennedy, \$4,000; signed, November 22d; filed, November 24th; limit, three months.

1st payment, \$1,250; framed, \$1,250; brown coated, \$1,250; completed, \$1,250, 35 days.

Noe and Henry, three-story frame. Owner, Mrs. Emily Cadwell; contractor, F. Emil Newbauer; cost, \$8,000.

Ninth, between Harrison and Bryant, two-story frame. Owner, C. Darsey; architect, M. J. Welsh; contractor, J. O'Connell; cost, \$3,500.

Noe, between Hill and 21st, excavations. Owner, Geo. D. Shadburne et al; contractor, F. Leffler; cost, \$2,600; signed, Nov. 30th; filed, Dec. 1st.

Prosper, near 17th, one-story frame. Owner, Merrell; contractor, Matthews; cost, \$2,000.

Pond and Prosper, two cottages. Owner, I. L. Merrell; architect, I. L. Merrell; contractor, Samuel D. Mathews; cost, \$4,015; signed, November 10th; filed, November 12th; limit, January 15th, 1889.

1st payment, \$1,000; chimneys up, \$1,000; enclosed, \$1,000; first coat plaster, \$1,015, completed.

Post and Baker, three cottages. Owner, Christopher A. Buckley; architect, A. Laver; contractor, J. J. Dunn; cost, \$7,200; signed, Sept. 28th; filed, Nov. 28th; limit, 75 days; sureties, C. S. Holmes, B. Joost.

1st payment, \$1,800; framed, \$1,800, brown coated, \$1,800, completed.

Prosper near 17th, one-story frame. Owner, James Condon; superintendent, C. Christy; cost, \$1,800.

Pond near 17th, two-story frame. Owner and builder, White; cost, \$4,500.

Pond and Prosper streets, two cottages. Owner, J. L. Merrell; contractor, S. D. Matthews; cost, \$4,500.

Seventeenth near Castro, two-story frame. Owner, Kimball; contractor, B. Dryer; cost, \$7,000.

Seventeenth near Castro, one-story frame. Owner, Harrington; contractor, Conlan; cost, \$1,500.

Seventeenth and Noe, Congregational Church. day work; cost \$5,000.

Stockton and Chestnut, two-story and basement frame. Owner, L. M. Juhl; contractor, Jno. C. Classen; cost, \$4,375; sureties, Chas. F. Doe, Chas. Lackeman; signed, November 14th; filed, November 22d; limit, 75 days.

1st payment, \$1,000; enclosed, \$1,000; brown coated, \$1,000; completed, \$1,275, 35 days.

Stockton and Emma, three-story and basement brick. Owner, Mrs. B. Turre; architect, Chas. R. Wilson; contractor, Jas. Geary; cost, \$9,050; signed, November 20th; filed, November 21st; limit, 131 days.

1st payment, \$400; graded, \$1,500; first-story walls up, \$1,500; third-story walls up, \$2,000; brown coated, \$1,387.50; completed, \$2,262.50, 35 days.

Stevenson between 19th and 20th, two-story frame. Owner, D. Finnegan; architect, M. J. Welsh; contractor, A. S. Cook; cost, \$1,600.

Twenty-Fourth, near Noe, two-story frame. Owner, Caroline Hoehn; contractor, A. Klahn; cost, \$2,900.

Taylor, near Clay, two-story frame. Owner, Mrs. Sarah Rankin; contractor, G. M. Salisbury; cost, \$3,200.

Twenty-third near Bartlett, additions. Cost \$1,000.

Third near Jessie, alterations. Cost, \$300.

Tusk near Larkin, three flats and two stores. Owner, Kate Morton; architect, H. C. Macy; contractor, Anderson Bros.; cost, \$7,957; sureties, Kennedy & Shaw, \$6,000; signed, November 5th; filed, November 15th; limit, 90 days.

1st payment, \$1,000; framed, \$1,000; brown mortared, \$1,000; white mortared, \$1,000; sashes in, \$1,967.75; completed, \$1,989.25, 35 days.

Valencia and 19th, four-story frame and brick basement. Owner, Wm. Hillenbran and P. Klose; architect, Salfeld & Kohlberg; contractor, B. Dryer; signed, April 19th; filed, November 22d; limit, September 1st.

1st payment, \$3,000; third floor joists up, \$2,800; frame work done, \$3,000; partitions set, \$3,000; brown coated \$3,000; white coated, \$4,000; completed, \$6,000, 35 days.

Waller, between Fillmore and Steiner, alterations. Owner, Henry Meade; architect, Caspar Zwielerlein; cost, \$1,935; signed, Dec. 1st; filed, Dec. 1st; limit, 60 days.

1st payment, \$500, enclosed; \$500, brown coated, \$500 completed; \$435, 35 days.

Vallejo between Van Ness and Franklin, two-story frame. Owner, J. Greenin; architect, W. Mooser; contractor, S. H. Kent; cost, \$15,000.

ALAMEDA.

Thomas I. Pyne is building a two-story dwelling, corner of Chestnut street and San Jose avenue. It will cost about \$3,500.

Herman Hashagen is building a cottage on McPherson street. It will cost about \$1,700.

Mrs. S. B. McKee, of Oakland, is building a two-story residence on Chestnut street, corner of Clinton avenue.

D. McKinnon is building a two-story house on Park street, near the bay. It will cost about \$4,000.

J. B. Cogswell has the contract for the erection of four one-story cottages on Versailles avenue, near Central avenue for J. Geneslich and C. Claret. The cost of the row will be \$5,800.

G. M. Mason has the contract for erecting a frame house for C. McKee on Chestnut street, near Clinton avenue, to cost \$3,100. A. C. Lutgens is the architect.

The vestry of Christ Church has agreed upon a plan for a new Church building, to be erected on the lot recently purchased on the corner of Santa Clara avenue and Grant street. It is to be of Romanesque style of architecture, and will cost, together with its furnishings, \$15,000.

BERKELEY.

C. R. Lord will commence the erection very soon of a residence on Channing way and Shattuck avenue.

Joe Newell has purchased a lot, and will soon build a house on Addison street near Tenth.

C. R. Lord is building for J. F. Kelly a residence on the Barker tract, to cost \$3,850.

Lord & Boynton have the contract for a residence for H. S. Thompson at Peralta Park, to cost \$2,786.

C. R. Lord is building for W. Patterson a cottage for \$2,560.

EAST OAKLAND.

Voice & McKenzie have the contract for the new Methodist Episcopal Church of East Oakland, which is being erected on the corner of Eighth avenue and East Seventeenth street. The contract price, which does not include heating, glass or seating, is \$19,969, to be made in five payments. The limit for completion of the work is March 25, 1889.

W. W. Crafts is erecting for M. Cullen a cottage on East Fourteenth street, to cost \$1,771.61.

OAKLAND BUILDINGS.

P. F. Nelson has contracted with Mrs. Sonnikson to build her a \$1,500 residence in this city.

Herbert & McLeod have the contract for a building for W. H. Martin in this city, to cost \$2,457. W. Kirk is the architect.

W. N. Concannon has the contract to erect a cottage for L. Friedman on the corner of Jefferson and Ninth streets in this city. C. Mau is the architect. The contract price is \$1,740.

W. T. Veitch has in course of construction a two-story frame cottage for M. Sisson on Myrtle street near Eighteenth. The cost will be \$3,000.

W. H. Weilbye is erecting three five-room cottages on West street near Thirty-ninth.

V. H. Metcalf is building a \$2,500 addition to his residence on the Coll Deane tract.

Four flats, to cost \$1,000, are being erected for Paul Lohse, at the corner of Thirteenth and Harrison streets.

J. N. Knowles, of Fifteenth and Jackson streets, will make a \$7,000 addition to his residence.

An addition costing \$4,000 is being put on the residence of W. H. Harvies on Jackson street near Eighteenth.

Paul Lohse is building a fine residence on Webster street near Eighteenth, which will cost \$9,000.

F. A. McFall, of Joliet, Ill., has purchased 100 feet of land on Delger street, on which he will erect three houses.

Mrs. Blake, of Albion street, has just had completed, at a cost of \$4,000, a fine eight-room dwelling. Mr. Weilbye is the contractor.

A. J. Snyder is building a five-room cottage on the south side of Twentieth street, which will cost about \$2,000.

A. McFall will build three six-room cottages on Twentieth street, between Telegraph and San Pablo avenues.

A two-story six-room flat will be erected at the corner of Brush and Seventeenth streets, by contractor Weilbye for Mrs. Howard, at a cost of \$5,000.

The same lady will also build a seven-room house on Seventeenth, near Brush street, costing \$3,000, and will have an eight-room house remodelled to the extent of \$1,200.

Mrs. E. S. Goodrich is having a nine-room two-story residence erected on Telegraph avenue, near Hobart street, by W. H. Weilbye.

Contractor Weilbye is erecting on Sutter street, near San Pablo avenue, an eight-room two-story dwelling for Mr. Wills. It will cost \$3,000.

BUSY AT WORK.

The location for the Hall of Records presents the most busy appearance of any place in Woodland. About sixteen hands are at work under the direction of Mr. Fulton, foreman. Mr. J. G. Day, contractor of San Francisco, is exercising a general supervision over the work. The foundation is being made strong and solid with concrete, with which the excavations are filled, and which rises about one foot above the ground. The Hall will be one of the most substantial structures in this portion of the state.

A BIG INDUSTRY.

The Extensive Lumber Output of the Various Mills in San Bernardino County.

A reporter of the *Index*, who is always on the alert for items of interest concerning San Bernardino county, had his attention drawn to the immense amount of lumber that is being hauled into town from off the mountains, and determined to ascertain from those who were posted just how many mills were running, and about how many thousand feet have been cut this season. After considerable running around it was ascertained that there were some eight mills in operation, and that their total output this season would aggregate 7,410,000 feet. The following are the mills now in operation, and the number of feet of lumber cut by each of them:

F. L. Talmage	1,000,000
Flemming & Co.	1,000,000
John Hook	1,000,000
Tyler Bros.	900,000
Somers	800,000
Van Slyke	1,000,000
Gurnsey	1,000,000
Mountain Mill	400,000
Total	7,410,000

This is no small output for a county that is known as the banner orange-growing section of the state, and will bring a great deal of capital into the county. It will also serve to keep the prices down so that almost anybody who so desires can save rent by owning their own homes.

The productions of San Bernardino county have never been half written up nor their extent told, and eastern capital that is now wending its way westward will eagerly grasp all such productions, and it behooves our people to be on hand to show and explain what boundless resources there are in San Bernardino county, and not to make set speeches on the town lot craze, for that business for making a fortune has been exploded.

THE NEW COAST LINE.

About 1,800 Men Hard at Work There.

The Southern Pacific evidently means business on its new coast line and additions are being made daily to the working force engaged in closing up the gap between Templeton and Ellwood. About 1,800 men are now at work and have graded and laid track to seven miles south of Templeton. Five hundred laborers are working on the 4,000 foot tunnels that will have to be encountered to San Luis Obispo, and this piece of work will probably occupy about a year. From San Luis Obispo to Ellwood the Southern Pacific will probably run around the Santa Ynez, but this all means heavy work, and it looks as if it will be about three years before the first train makes the through trip from Los Angeles to San Francisco over the new road.

WINTERS, YOLO CO.

On August 16th last, more than half of the business portion of town was destroyed by fire. The owners of the burnt district wisely determined to rebuild same with brick structures. Brick, however, were a scarce article and proceedings were delayed until they could be made.

C. Koske is having erected a one-story brick building to cost \$2,500. J. E. McFall being the contractor. J. H. Fenly & Co. are also putting up a \$2,500 brick building. A. Ritchie being the architect and builder. Several other buildings will soon be started.

THE SAN FRANCISCO BRIDGE COMPANY GETS A SMALL CONTRACT IN SAN JOSE.

At the session of the Board of Supervisors last week bids were opened for the construction of a bridge across the Capitancillos creek, on the Almaden road, as follows: C. E. Berry, \$1,375; Pacific Bridge Company, \$1,095; San Francisco Bridge Company, \$943.

The contract was awarded to the latter company and their bond placed at \$500.

SAN JOSE.

Mr. Lux is having a house built to cost \$1,000. Mr. D. Green is the contractor. Also a barn to cost about \$3,200. Mr. Lewis is the contractor, Theo. Lenzen is the architect. Michael Sullivan is having a one-story cottage built in East San Jose, contractor, J. E. Clinton; Architect, J. O. McKee; cost, \$2,200; Mrs. H. P. Burt a cottage on Sixth street. A. J. McIlwain, contractor; J. L. Bothwell, architect; cost, \$2,600. Mrs. C. J. Martin three-story brick on Second street. J. J. Hill, contractor; Theo. Lenzen, architect; cost, \$35,000. James T. Helan three-story brick on First street. A. J. McIlwain, contractor; J. Lenzen and Son, architect; cost, \$35,000. Mrs. S. L. Winchester is having her house remodeled after plans by J. O. McKee. J. B. Wolfe is the contractor; cost, about \$6,000. Mr. S. N. Johnston a two-story dwelling house on Eighth street. Built by day's work. Estimated cost about \$5,000; J. O. McKee, architect. Mr. Close a two-story house on Eighth street. Fuller & Lashbrooks, contractors and cost, \$3,700. Mrs. Parkinson a two-story cottage on Eighth street. Plans by Newsum; cost about \$3,500. Several new houses are in course of erection around town that are being built by contractors who furnish their own plans. The City Hall is gradually nearing completion, and it is an ornament to the town. The Hotel Vendome is not completed as yet and is dragging along slowly. Van Dalsen has a large crew at work on the new asylum buildings, and is pushing the work rapidly.

Yours Truly,

J. L. BOTHWELL.

COUNTRY BUILDING ACTIVITIES.

With the exception of the southern part of the State, building activities are generally progressive. From present appearances, the district from Modesto to Fresno promises to be more than usually lively next year. Late advices from San Bernardino, Los Angeles and San Diego represent that the present setback is but temporary, and that next year will witness a renewal of the erection of edifices and dwellings, that gave the southern counties the name in past two years of the most active building section of the United States. Oakland and Alameda exceeded last year in the value of new buildings erected. Sacramento, Stockton and immediate vicinity thereto have reason to be proud of the energy shown by their residents in beautifying the various localities. To Napa and Sonoma Valleys have been added scores of beautiful homes, while wineries and other large buildings have been placed where necessities demanded. North of Marysville the opening of the Oregon Railroad has caused hundreds of new buildings to be added to the various towns along the line. Generally the year has been a good one and promises for the future are especially brilliant.

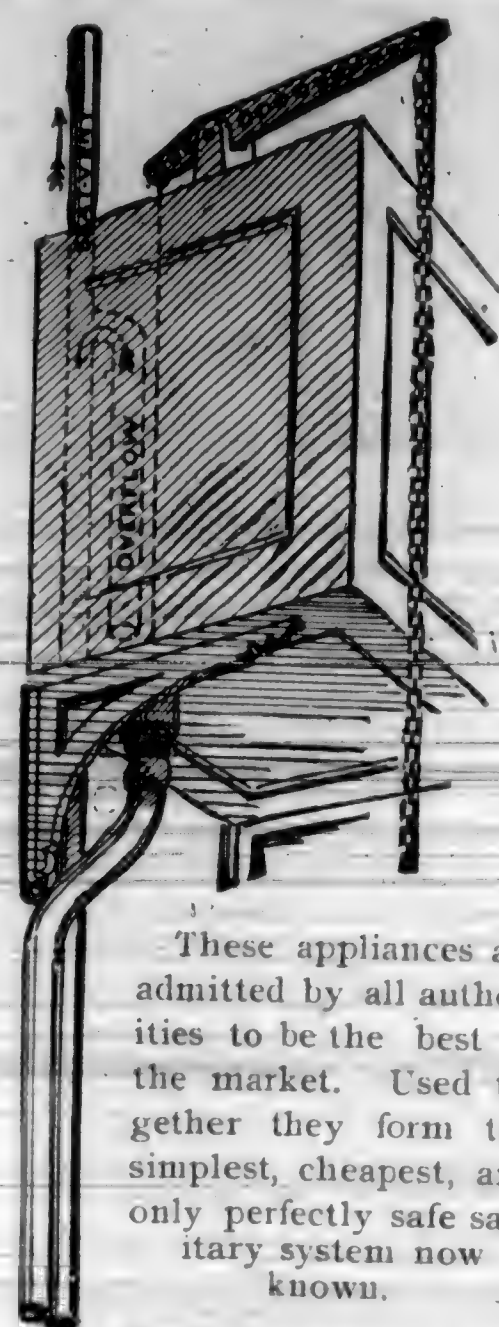
NORTHERN and SOUTHERN CALIFORNIA.

A residence of thirty-seven years in this state gives us a right to our opinion in regard to dividing this glorious state.

We are for California, one and indivisible, now and forever. Always the grand and matchless State of California.

No North, no South, but one commonwealth, with all acting under a common and general impulse to make California the Mecca of the world.

THE CELEBRATED SANITAS PLUMBING APPLIANCES.



These appliances are admitted by all authorities to be the best in the market. Used together they form the simplest, cheapest, and only perfectly safe sanitary system now known.

("SANITAS" BATH-TUB and PANTRY-SINK on same principle as Basin)

THE "SANITAS" MANUFACTURING CO.,
BOSTON, MASS.

Branch Offices: 64 Gold Street, New York, N. Y.
229 Walnut Street, Cincinnati, O. 47 to 49 Dearbon Street, Chicago, Ill.

ARNOLD & CO, 40 California Street,

San Francisco.

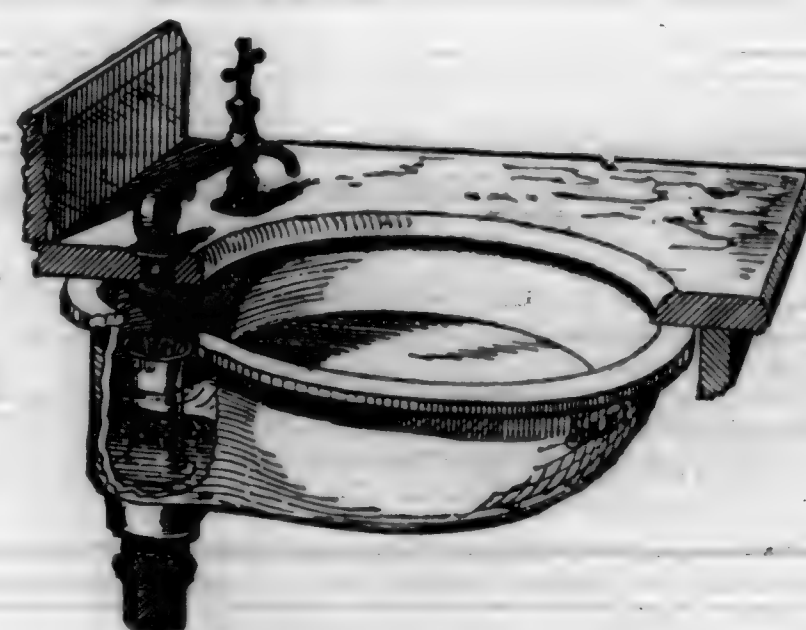
SOLE AGENTS

FOR CALIFORNIA.

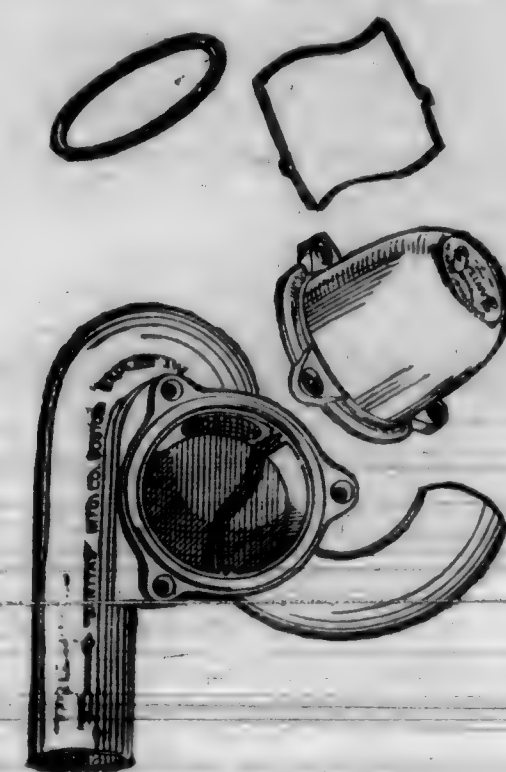
Architects, Builders and the Public generally, are invited to call and inspect the same.



THE "SANITAS" WATER-CLOSET.



THE "SANITAS" WASH-BASIN.



"SANITAS TRAP"
OPENED.

The Sanitas Trap whether vented or unvented, has shown itself when properly set to be capable of resisting indefinitely, siphonage, back-pressure, and all other adverse influences met with in plumbing.

The "Sanitas" Basin flushes out the pipes and keeps them clean.

MCCLELLAN
Anti-Siphon Trap Vent.
SAFE ST and MOST-ECONOMICAL



Device for
Venting
Sewer-Gas
Traps.

Can be attached to any
Trap at Less than
Half the Cost of back-air pipes.

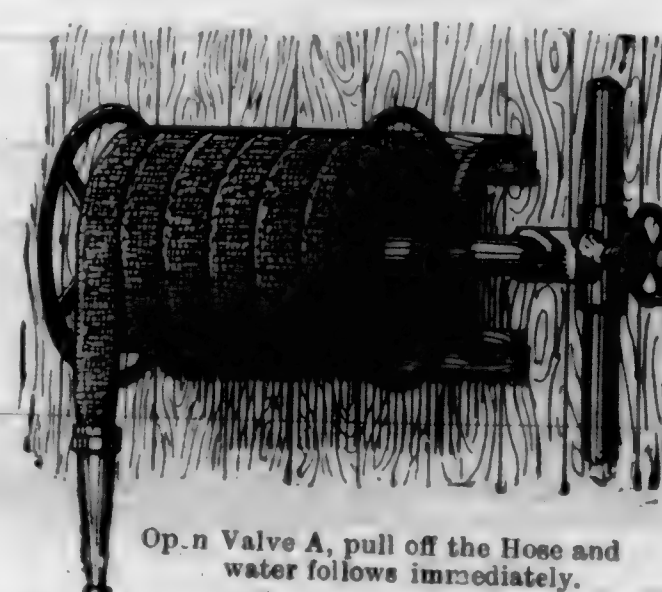
Approved by
ARCHITECTS, MASTER PLUMBERS AND
HEALTH AUTHORITIES.

Manufactured by the

DU BOIS MAN'G CO.

Manufacturers of
The Celebrated Du Bois Lead Trap.

For by all Jobbers in Plumbers' Supplies, of whom
Circulars may be obtained.



W. T. Y. SCHENCK
MANUFACTURER OF
SCHENCK'S PATENT
"Paragon" Hose Reel,

And Sole Agent for Pacific Coast for
the Celebrated "Eureka Mill"
Cotton Rubber-Lined

FIRE HOSE

For Mills, Factories, Hotels and Pub-
lic Buildings, and General In-
side Fire Protection.

Also "Eureka," "Paragon," and "Red Cross" brands of Cotton
Fire and Garden Hose, Linen Hose, Rubber Hose, Fire Depart-
ment Supplies, &c., &c.

Manufacturer of Hose Carts, H. & L. Trucks, and "Red Cord"

Square Flax Packing for Elevators, Etc.

222 & 224 MARKET ST., SAN FRANCISCO

TITLE THE CALIFORNIA ARCHITECT AND
BUILDING NEWS
FORMERLY THE CALIFORNIA ARCHITECT AND
AUTHOR BUILDING REVIEW
FORMERLY THE QUARTERLY ARCHITECTURAL
REVIEW
VOLUME X

DATE 1889

PUBLISHER WORLD MICROFILMS PUBLICATIONS in association with THE
ROYAL INSTITUTE OF BRITISH ARCHITECTS

COPYRIGHT © 1974 THE ROYAL INSTITUTE OF
BRITISH ARCHITECTS

CONDITION
OF
SUPPLY

In accordance with the terms of supply under which this reel of microfilm was supplied the purchaser has agreed that it will not reproduce the material contained in this reel of microfilm in any manner or for any purpose whatsoever except that in the case of a library it may reproduce the above-mentioned microfilmed material in accordance with the normal current practice of providing copies solely for the personal use within such library of persons entitled to use the facilities of such library. The above condition shall be expressly passed on and shall apply to any person to whom the purchaser sells or grants any rights over the above-mentioned microfilmed material.



PUBLISHED BY THE
CALIFORNIA ARCHITECTURAL PUBLISHING CO.
 408 California Street, San Francisco, Cal.

VOL. X. INDEX. 1880.

INDEX TO CONTENTS.

Academy of Sciences.....	121	Competition, Semi-Annual, San Francisco Architectural League.....	44
Admission of Air to Rooms.....	34	Competition in Stone Pavement.....	109
Annual Address S. F. C. A. I. A., Sanders.....	142	Consolidated Convention.....	153
Another Question of Law.....	98	Correspondence.....	146
Applicable to San Francisco.....	12	Current Publications.....	147 and 158
Architecture, September Souvenir.....	12	Death of Captain A. H. Nichols.....	150
Architecture as a Profession.....	37	Decision (Supreme Court) of Interest to Contractors.....	21
Astronomical Society.....	155	Decision on Adequate Compensation.....	77
Bill to Regulate Practice of Architecture.....	156	Decomposition of Stone.....	113
Building.....	11	Difficulties of Architects.....	2
Building Activity in Jerusalem.....	8	Directors' Meeting, A. I. A.....	154
Building Activities in the City.....	19	Disadvantages of Builders.....	3
Building by Contract.....	9	Does it Pay to Own a Home.....	39
Building Loan Notes.....	149	Don't Neglect the Plumbing.....	114
Building News..... 15, 27, 40, 55, 72, 89, 103, 116, 124, 137		Durable Damp Courses.....	8
and Supplements of November and December.....		Electric Apparatus for Buildings.....	122
Brick Piers.....	99	Examination for Architects.....	44
Brick Supply.....	9	Expansion of Timber due to Absorption of Water.....	78
Byrkits' Patent Sheathing Lath.....	14	Expenses of Architects.....	23
California Hotel and Theatre.....	45	Extension of the San Francisco Fire Limits.....	141 and 150
Carlin's Address, W. A. A.....	152	Filing and Abstracting Contracts.....	32
Carpenters not Wanted.....	118	Future of Oregon Lumber.....	4
Cheap Lumber and Building.....	26	Good Things for Boys.....	111
Cogswell Technical School.....	48	Going to the Shop for Solder.....	61
Colors of Stone in Building.....	113	Groins.....	82
		Has Architecture a Name.....	158

He Knew it All.....	156	Treatment of Ceilings.....	115 and 123
Hibernia Bank Competition.....	31	True Test of Value of Employees' Services.....	83
High Houses in London.....	123	Uniform Size of Brick.....	60
Hints to Mechanics.....	11	Uses of the Trade Paper.....	9
Honest House Finish.....	80	Validity of Contracts.....	133
How to Teach Boys to Become Bricklayers.....	95	Venice and Rome.....	43
Hunt's, R. M., Address A. I. A.....	151	Washington News.....	135 and 146
Inadequacy of Architects Compensation.....	25	Wasted Energy.....	7
Inaugural Address, S. F. C. A. I. A., Babson.....	143	What Becomes of Our Saws.....	99
International Congress Architects.....	109	Why two Similar Saws do not Always Run Alike.....	38
Iron Age, Sanders.....	62		
Iron Beam and Girder Connection.....	46		
Iron Pipes from Rusting.....	114		
Iron Shutters and Fires.....	32		
Law Affecting Architects.....	13		
Lick Fund Competition.....	120		
Lives of Prominent Architects, September Souvenir.....			
Living up to Specifications.....	13		
Loose Screws.....	4		
Lumber Statistics.....	94		
Magnitude in Architecture.....	122		
Mechanics' Lien Law.....	146		
Mechanics' Fair.....	34		
Memorandum of a Contract.....	18		
Method of Applying Byrkit's Sheathing Lath.....	84		
Methods to be Observed by Contractors.....	88		
Metrical Measures.....	106		
Model Kitchen.....	2		
Mothers as Wage Workers.....	111		
Municipal Court, New York.....	124		
Musician's Union Trouble.....	109		
Nashville's Estimating Rules.....	100		
New City Hall Statistics.....	96		
New Era in Redwood Lumbering.....	55		
Notes and Reviews.....	147 and 157		
Owners Acceptance of a Building.....	7		
Pacific Land Loan and Building Company.....	86		
Painter and the Architect.....	97		
Painting Wood.....	79		
Photography in the Draughting Room.....	36		
Piece Work.....	151		
Plans, Mechanics' Institute.....	151		
Plastering and Stucco Work.....	78		
Plate Glass Making.....	26		
Practical Hints to Carpenters.....	12		
Public Companies and the N. S. W. Institute Architects.....	60		
Put the Wires Under Ground.....	133		
Quarterly Building Summary.....	32		
Relationship of Architecture to the Arts and Crafts.....	24		
Remarkable Discoveries in Egypt.....	114		
Responsibility of Architects.....	156		
Relationship of Owners and Builders to Plumbers.....	38		
Salt Water in Cities and Towns.....	131		
San Francisco Chapter, A. I. A.....	155		
School Room Space.....	158		
Semi-Annual Building Report.....	79		
Shingles, Hip and Valleys.....	97		
Slow Burning Construction.....	122		
Straightening Walls of Builders.....	124		
Technical Society.....	155		
Testing Foundations.....	27		
Twenty Eight-story Buildings.....	3		
The Tornado.....	14		
Time Servers.....	83		
Tin Roof.....	110		
Trap Seal Protection.....	6		
Travel in Foreign Lands.....	144		

ILLUSTRATIONS.

Store Front with Detailed Column.....	3
Side Hill Residence.....	5
Colonial Cottage.....	6
Country Home.....	7
Alhambra Cottage.....	8
Plans for Same.....	9
Detailed Corner Building.....	10
Old Colonial Style Cottage.....	11
Sketch of an Old Home.....	19
City Residence.....	20
Gem Cottage.....	22
Floor Plans for Same.....	24
Nine-story Business Block.....	33
"Tiburon" Front Elevation.....	34
Side Elevation and Ground Plan of Same.....	35
"Precita" Front and Side Elevations.....	36
Plan of "Precita".....	37
Tower Top.....	47
Cogswell Technical School.....	48
"Rio Del Cottage" Elevations and Details. Plate.....	
New California Hotel and Theatre. Plate.....	
Design for Country Dwelling.....	61
Diagram Age of Man.....	62
Great Nebula in Orion—Types of Stella Spectra.....	63
Bridges.....	64, 65, 66
Firth of Forth Cantilever.....	67 and 68
North River Bridge, and others.....	68, 69, 70
London Exhibition Building, 1851.....	70 and 71
Country Dwelling, Plans, etc.....	80 and 81
Groins.....	82
Byrkit Sheathing.....	84 and 85
Artotype Residence. Plate.....	
Sketch, Country Dwelling.....	96
Children's Play Grounds.....	98
Cottage Elevations, and Plans.....	99 and 100
City Dwelling.....	109
Cottage and Plans.....	112 and 113
Business Block. Souvenir.....	
Van Bergen's Block. Souvenir.....	
Academy of Sciences. Plate.....	
Hotel Coronado. Souvenir.....	
Golden Gate Stables. Souvenir.....	
Rosenthal Building. Souvenir.....	
Metropolitan Temple. Souvenir.....	
Oriel Row. Souvenir.....	
Residence on Scott Street.....	130
Villa, Los Angeles.....	134
Hibernia Bank. Double Plates.....	
Cottage, with Elevations, Plans, etc.....	144, 145, 147
Two-story House, Elevations. Plates.....	
Residence, Inglewood. Double Plate.....	
Plans City Residence.....	153 and 154
Residence, Hawaiian Islands. Double Plate.....	
Elevation, City Residence. Plate.....	
Entrance Cooper Medical College. Plate.....	

The * California * Architect * and * Building * News

VOLUME 10.

ENTERED AT POST-OFFICE, SAN FRANCISCO, AS SECOND-CLASS MAIL MATTER. ESTABLISHED JANUARY, 1879.

NUMBER 1.

NOW IN ITS TENTH YEAR!

VALEDICTORY.

THE
California Architect and Building News.

ESTABLISHED JANUARY, 1879.

Office, 408 California St., San Francisco.

(Next to the Bank of California.)

Official Organ of the San Francisco Chapter American Institute
of Architects.

TERMS PER ANNUM, - - - \$2.00 IN ADVANCE

Published on the Fifteenth of each Month.

When money is sent for subscriptions, the receipt of a copy of this
Journal is an acknowledgment that it has been received.
Unless requested we do not send receipts.

OUR ADVERTISING RATES.

SPACE.	1 MONTH.	3 MONTHS.	6 MONTHS.	12 MONTHS.
1 Inch,	\$ 1 50	\$ 4 00	\$ 7 50	\$ 13 00
3 Inch,	4 00	10 00	18 00	35 00
6 Inch,	7 50	18 00	32 00	60 00
1 Column,	12 50	35 00	65 00	125 00
1/2 Page,	11 00	30 00	57 50	105 00
1/4 Page,	20 00	57 50	105 00	200 00
1/8 Page,	30 00	50 00	150 00	275 00
1 Page,	40 00	110 00	200 00	350 00

Full-page advertisements inserted among reading matter, fifty per
cent extra on above rates.Specially attractive advertisements, without extra cost, will be set
up in the finest style where the advertiser furnishes cuts.

CASH MUST ACCOMPANY ALL ORDERS FOR ADS.

ADVERTISEMENTS ALONE INSERTED THAT REFER TO MATERIALS
USED IN THE CONSTRUCTION AND FURNISHING OF HOUSES,
AND TO MATTERS AND TRADES BELONGING TO
THE BUILDING INTEREST.

— NO OTHERS RECEIVED. —

PARTICULAR NOTICE.—Each advertising page contains three columns, each of which is
about two and a half inches wide. One inch means one inch in depth by two and a half
inches in width.

Spaces on Cover and on page preceding reading matter are subject to special rates.

SAN FRANCISCO, JAN. 15, 1889.

CALIFORNIA ARCHITECT PUBLISHING COMPANY

NOW HAS CONTROL OF THIS JOURNAL.

A meeting of the Stockholders of the above named Company was
held on January 14, 1889; the following named architects were unani-
mously elected as Directors of the Company:

ALBERT PISSIS,	W. P. MOORE,
H. T. BESTOR,	W. J. MATTHEWS,
OLIVER EVERETT,	R. H. WHITE,
W. J. CUTHBERTSON,	

Articles of Incorporation have been prepared, and as soon as re-
turned from the Secretary of State, permanent officers will be elected
and the Company's organization completed.Rooms have been secured at 408 California St., next to the Bank of
California.Direct all communications in future to the above address, as all
subsequent issues will be issued from the new offices.

In parting from this journal as its original founder and sole proprietor, I feel it due to my many personal friends and a generous public who have so well and nobly assisted me by subscription and advertising patronage, to thank them sincerely and truly for every favor received. In a remarkable degree, this journal has come up to its present enviable position "through great tribulation." Its initiatory issue appearing at a time memorable in the history of the State, when all financial and building interests were demoralized, and a terribly bad condition of things generally prevailing—times when no one but a bold and determined man or a simpleton would have dared to hazard the risks attending the undertaking, as all the conditions, monetary and business, were depressed and confused, and a feeling of uncertainty overhanging and enshrouding every interest of the State.

But with faith and hope that days of prosperity would return, and the shadows disappear, the monthly succeeded the quarterly of 1879, and from then until now, it has not failed to make its monthly appearance regularly.

Up to the birth of this pioneer architectural journal on this coast, there had been none devoted exclusively to the architectural and building interests, and scarce ever before had illustrations and cuts of buildings been seen in journals printed in California, and the number of class journals published in the United States was far less than now, and by no means equal in character and influence with those of the present day. But following the advent of this journal, the number increased rapidly until nearly every city in the Union of any considerable importance, is now represented by a class journal. Many have come to the surface only to perish and disappear after a brief period, under the weight of cumulative difficulties, which must be met in all such undertakings.

The prophets of ten years ago predicted a like result for this journal, and limited its life to a few months, or at farthest one year. But ten years have passed, and still it lives and prospers, and at the end of a full decade, instead of expiring, it reaches out into a larger field of operation, and calls to its sanctum sanctorum a host of competent and energetic men, whose name alone, as interested parties, give assurance that its future will be well sustained, and its influence and usefulness become an indispensable factor in architectural and building matters.

Again, to my numerous friends I return thanks for every favor received, and to those who—perhaps following a common law or instinct of their nature—have indulged in unkind if not vicious expression, charging purposes entirely the opposite of those which induced the founding of this journal, and to the fullest of possibilities, misjudging and misrepresenting the acts and efforts of its proprietor—I have no harsh replies to make, being entirely compensated and satisfied by and with the innumerable kind words and favors received from a host of generous, fair minded and honorable patrons and friends. And now, as with this issue all personal control of this journal on my part merges into one composed of many intelligent and honorable brother architects, and others who will guide its future, I ask that my friends one and all continue their hearty support, and extend to the new management, advertising and subscription support, equal or greater than that which has been so generously and liberally extended to the journal under my personal management during all the years of its existence.

Sincerely to all,

JAMES E. WOLFE.

With this issue we begin the Tenth Volume of this Journal. It is the only one printed this side of the Rocky Mountains in the interest of Architects and Builders.



PLATE 2.—SEE "OUR ILLUSTRATIONS."

CERTAIN architects, in a place which we will not mention, were instructed to make plans and specifications for a house, to cost a certain sum, and to contain accommodations which could not possibly be provided for that sum. As we all know, this method of giving incompatible directions is very popular among clients, who are thereby enabled, whatever the architect may do for them, to resist paying his bill, if they happen to be so inclined, on the ground that he disobeyed some of the instructions, which he was, of course, obliged to do in carrying out the others; and, like the rest of us, the architects in question devoted themselves diligently to finding out what their patron really wanted. This was a house costing considerably more than the proposed sum as they told him. Bids were obtained, the lowest of which was more than the client wished to spend, so he himself took the lowest in hand, and with him modified the drawings and specifications so as to bring the cost of the building within his means. The architects were informed of this agreement, and requested to draw up contracts in accordance with it, which they did. When the outside of the house was done, the contractor notified the owner to send some one to paint it, as the painting was not included in the specifications or in his contract. The owner, as usual, proceeded to the architects, and demanded that as they had forgotten to mention the painting in their specifications, they should pay for it themselves, which they declined to do. As it happened, their side of the case was complicated by the fact that they had inserted a clause at the end of their specifications, reciting that "all work necessary to the complete finish of the building should be done by the contractor without extra charge, whether specially described in the specification or not." The other builders who had estimated on the house told them that under this clause they had included the painting in their estimate, and the contractor told them that he should charge no more for painting the house at the stage where it had already arrived than if he had included it in his original estimate, so, as far as their work was concerned, they could not see how the owner had suffered any damage by the omission. As to the point whether the contractor, under the saving clause in the specification, was bound to do the painting, they took legal advice in the owner's interest, and learned, what architects who depend upon blanket clauses should remember, that such a stipulation is with difficulty applied with special sorts of work not expressly mentioned in the specification, and there was no probability that it could be stretched to cover the painting of a house. Apparently, the owner also took legal advice as to his claim on the architects, for he abandoned it, and paid for the painting himself, as he would unquestionably have been compelled to do if he had been so foolish as to carry the dispute into court. The law is perfectly well settled that the omission of anything from a contract or specification, by an oversight of the architect, renders him liable, at worst, only for the difference between the cost of doing it after the discovery of the omission, and what it would cost to do it if it had been originally included in the specification or contract. In most cases this difference is nothing, and there is, therefore, no damage to be claimed; and even if there should be a real difference, and corresponding damage, the architect would not have to bear it unless the omission showed lack of reasonable care and skill. It should be remembered that the architect does not guarantee that his specifications are either full or accurate. "Heaven forbid," said the Lord Chancellor of England, "that a lawyer should be expected to know all the law,"

and an architect is no more to be expected to remember every item about a building, in writing his specification, than his counsel is to know all the law. If he makes glaring mistakes, such as architects of good ordinary skill and diligence would not make he is liable for any damage that his employer may suffer in consequence, but that is the extent of his liability. The idea that an architect gives a guaranty to an indefinite amount with everything that he does or says, however hastily, is much favored by the persons who look on all business transactions as traps, by which weak or unwary people are to be caught and fleeced, but has no sanction in the courts.

ON the contrary, a case recently decided on appeal in England has established the rule that even a quantity-surveyor is not responsible for the correctness of his quantities. In the case in question, a quantity-surveyor was employed to take out the quantities for a certain building, from the plans and specifications, and the tenders for the work were based on these quantities. It is the custom in England for the bidder whose tender is accepted to pay the surveyor's fee, and on the completion of the contract the surveyor, who had not been able to get his money before, brought suit against the contractor for it. The contractor refused to pay, setting up a counter-claim that, on account of the inaccuracy of the quantities, which were less in several instances than the actual amount of work required he was obliged to do more work than he had estimated upon, and had suffered much damage in consequence. There was apparently, reason to suppose that the contractor's claim was well founded, but both the lower court and the court of appeal refused even to listen to the evidence which he offered. They admitted the surveyor's witnesses, to prove that the custom was for the contractor to pay for the quantities, but barred out the counter-claim entirely, on the ground that the law was established that a quantity-surveyor did not guarantee his work, and evidence to prove its inaccuracy could not be admitted. It is true that the English architectural journals comment rather severely on this decision, and quote another, where an owner recovered damages from a surveyor who made his quantities too large, and thereby unduly enhanced the contract price; but the decision shows that if a surveyor, on whose data are based the contractor's figures, is not liable for mistakes in them, it would be preposterous to try to make an architect suffer for not being infallible and omniscient, where no damage could be shown to have resulted from his errors or oversights.—*American Architect*.

Our Illustrations.

Plates 2 and 14 represent new ideas of capitals to be worked in stone.

Plate 3 is self explanatory. This engraving was prepared expressly for this journal, and shows to advantage the skill secured by our modern engravers.

Plate 5. This is a beautiful example of a modern design in street architecture in San Francisco. There are a great many designs of similar character in various parts of the city, but the one shown may be taken as a fair representative of buildings costing about \$5,000.

Plates 6 and 7 were furnished us as a fair example of the difference between the "Old Colonial" style and a modern design for country dwellings. This only as far as the exterior is concerned. In either case the interiors are of modern construction.

Plates 8 and 9 represent the plan and elevation of a very conveniently arranged country or suburban dwelling. It was designed by Sam'l Newsom. Sizes of the rooms are very distinctly given, and all the appointments are clearly shown. It can be built for about \$6,000.

Plates 4, 10, 11, 12 and 13 were designed expressly for this journal by C. Bryant Schaefer. Plates 10 and 11 will bear special study.

With each succeeding number will be noted a general improvement in the character of our illustrations. We certainly take pride in presenting the present issue, believing that it far exceeds any preceeding number of any similar class journal published this side of Chicago.

Now is the time to subscribe. Send us \$2.00 and we will send you this journal for one year.

THERE is a peculiarity about the building business that is foreign to all other enterprises. San Francisco and the other cities on this coast have been built at a heavy loss to their contracting mechanics, their employers and material men. This condition of circumstances is partly owing to the constant incoming of new men—new contractors, who are bound to make a start in business. "To make a spoon or spoil a horn," having everything to gain and little to lose, they underbid older and more cautious men. There is sometimes an idea among those new comers that our old contractors are fogies, and behind the times, and if the old men can make both ends meet the new hands can certainly get rich at the same prices, as they consider themselves sharper, can figure and manipulate closer, and have greater energy. Thus it is that prices are constantly being cut so that as I remarked at the commencement of this article, the cities have been built up at a loss to the mechanic, etc.

The trouble is in the number of contractors, and the severe competition, in addition to that caused by men not capable of making a correct estimate, or of successfully conducting the works after they secure the job.

A great source of trouble, and that which to a large extent makes the other difficulties possible is that great protector of the mechanics and material men—the Mechanics' Lien law, which gives the impecunious contractor the right to use the credit or property of the owner as security to his employees and material men. As the law requires that claims for labor and material must be paid out of the money coming to the contractor before any outsider can attach or secure any of said money for any other debts of the contractor. This enables inexperienced men without credit or other capital to enter the building market in competition with those having ample experience, credit and money, to the great injury of the latter. It is hardly possible to select five men from the building business, to make an estimate on the cost of a building without at least one making a mistake that will bring his estimate away below the others, and so low that he will fail to make a profit. Of course when the contractor loses the owner gains, provided he does not, at the same time, secure a series of law suits, and be obliged at the end to pay out more than if he had accepted one of the other bids. In nine cases out of ten, the owner, who is taking estimates, will insist in having those of one or two contractors, who have been recommended to him as low bidders, trusting to luck to get through without trouble, or considering themselves secure if the low bidder will give a bond signed by John Smith or some other person whose property is as easily identified as the above name. If the lien law did not apply to any other than the original contractor, the principal part of the difficulties in connection with the building trades would soon cease, as only those having money of their own or good credit would be in competition with each other, and would be careful to have enough for their work to avoid loss. All creditors would have the right to attach money due to contractors for debts due on other works, as well as on the works then under contract. This would place contractors on the same footing as merchants, and those who had secured good reputation for ability, reliability and honesty would be able to secure reasonable profits on their work. There would be less than one half the competition between contractors that there is now.

There is no good reason why intelligent, skillful and solvent contractors should not make a profit of from eight to ten per cent on their contracts.

Now, is there any reason why owners should not be willing to pay such prices as will give a profit on works done for them?

The main trouble originates in the unfair advantage taken of the Mechanics' Lien law, that great protector of the workingman.

Yours truly, BOREAS.

That 28-Story Building.

A few months ago we called attention to a 28-story building, designed by a Minneapolis architect. Inference was made that a style peculiar to himself was intended by the party referred to. At last accounts, the architect has backed squarely and completely down, and if report be true, has intimated that the plan was meant only for illustrative purposes. He seems however to have complete confidence in the practicability of such a building, but so far has not been able to induce capitalists to invest in the scheme. But few architects have succeeded in obtaining as much free advertising as the one referred to, and we doubt if it has been of much advantage to increase the number of his clients.

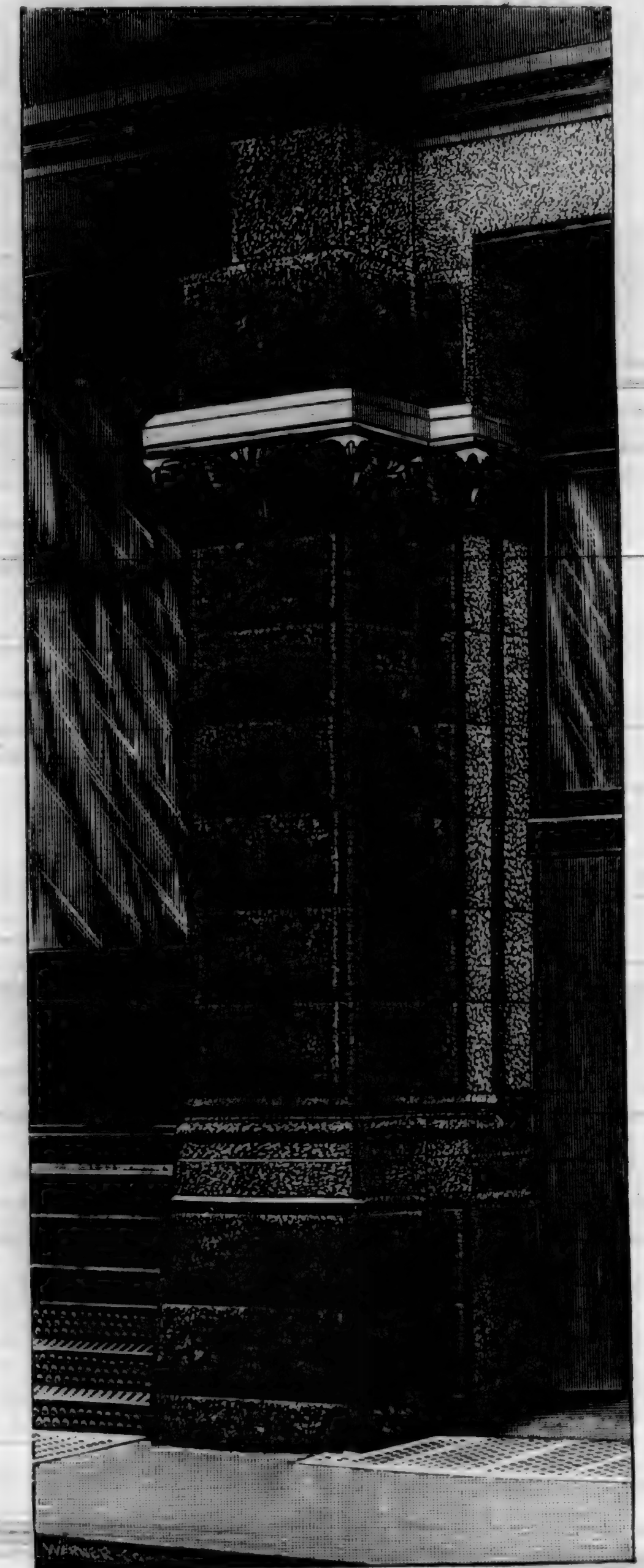


PLATE 3.—SEE "OUR ILLUSTRATIONS."

The difference between building in America and in some of the older parts of the world is illustrated by an item that is at present making the rounds of the English papers. Some 16 years since a town-house was built at Rochdale, at a cost of \$150,000. Recently the town council have discovered that the building at present requires thorough re-roofing and other expensive repairs. Such occurrences as this in America, at least in many portions of this country, would pass almost without notice being accepted as the natural order of affairs, but on the other side of the water it seems things are different. One of the aldermen, on the occasion named, took the opportunity to denounce the contractors of the building, stating that they had scamped the work in every possible way, and measures by which they might be punished were seriously considered. The item in question concludes that it is monstrous that a town-hall which was erected at so great an expense should require repairs after only 16 years.

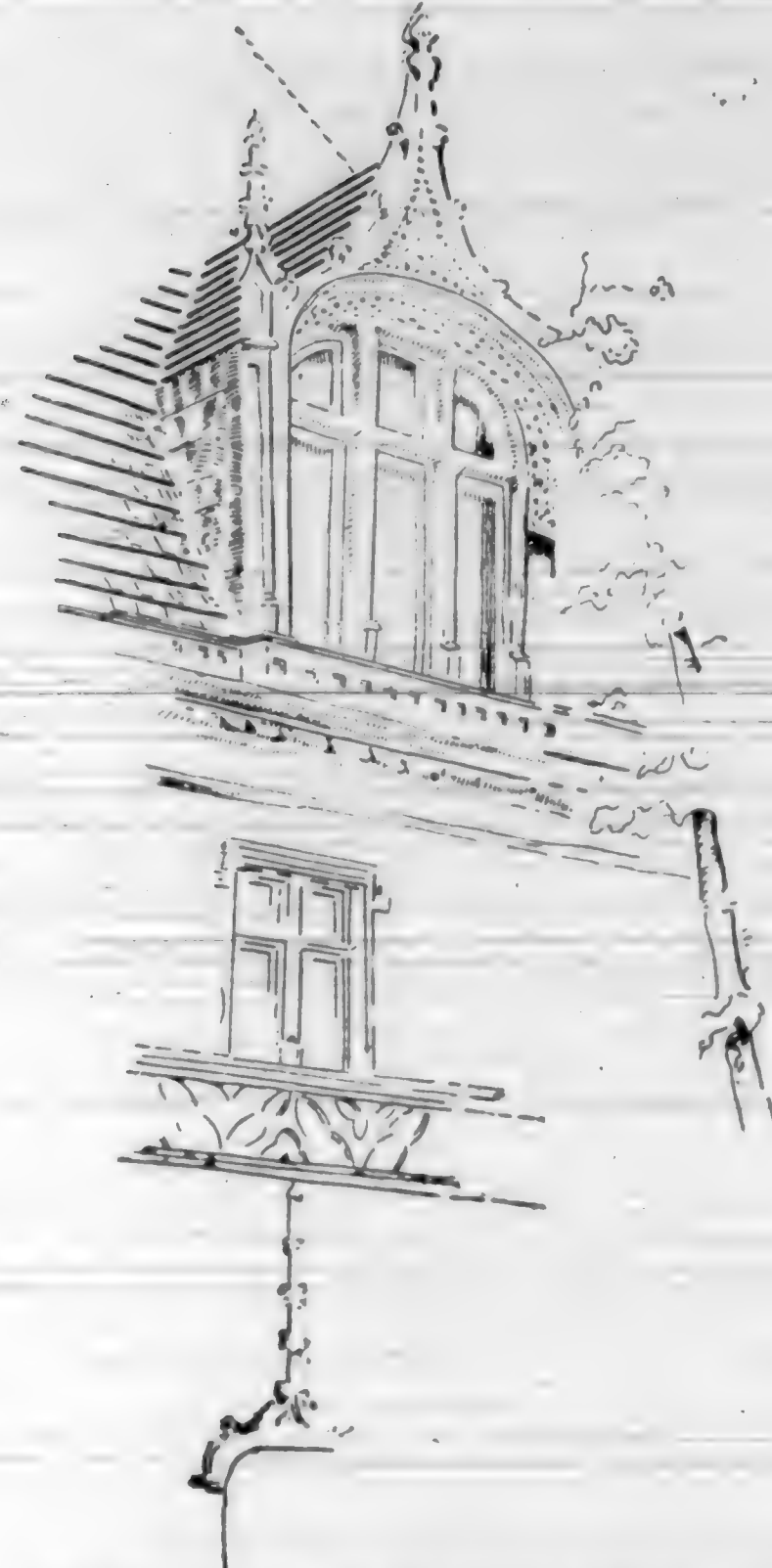


PLATE 4—SEE "OUR ILLUSTRATIONS."

AS THE NORTHWESTERN "LUMBERMAN" VIEWS
THE SUBJECT.

The Future of Oregon Lumber.

AN Oregon paper points out in a timely manner the opportunities now before the lumber manufacturers and dealers of that state. Until the development of enlarged demand from eastern sources of consumption, Oregon labored under disadvantages, and does still, but there is a prospect that her lumbermen will be able to hold their own in the future.

Outside of the demand noted, Oregon, for a long time, had little but a local market for her lumber product. California, and especially San Francisco, secured nearly all the domestic and foreign trade on account of the situation and generally superior advantages. The combination by coast lumbermen aided them in making the most of their opportunities. Nearly all the Oregon lumber which went to supply an export demand was handled by California dealers under a sort of sufferance, so it is said. Actual competition would scarcely be permitted. It is claimed also that Oregon lumber has been purposely maligned to prevent its coming extensively to the front. It has been given out that Columbia river lumber—a distinction applying to all the product from Astoria to Portland—was of inferior quality, yet, according to the allegations, the California dealers would fill orders with it for Puget Sound lumber.

But Oregon's natural field of traffic lies to the east, and with respect to that she may be quite independent of California or the sound, unless the railroads see fit to discriminate unfairly in making rates. There is no doubt as good timber growing in Oregon as in Washington, and there is much virgin forest in the state. It is believed that the Oregon lumbermen will be able to hold the trade they have worked up with the east against all competition. A market has been found for Oregon fir, commonly known as pine, at Denver, Salt Lake, Omaha and other important points, and to a limited extent, in Chicago.

The greater demand is for heavy timber for railroad and structural purposes. Its strength is its cardinal virtue as a light wood. Although it bears some resemblance to white pine, it does not correspond to it, or equal it, in certain respects, but it adapted to heavy dimension and wide lumber. Oregon cedar shingles are also in demand.

One thing in favor of an increase in the demand for Oregon or other coast lumber is the fact that the decrease of white pine stumpage and its upward tendency point to a rise in the price of the lumber manufactured from it, while the extension of manufacturing operations on the coast, the building of larger and better equipped mills, logging roads, etc., would tend to cheapen rather than to enhance the price of lumber there produced; and as the trade with the east advances into greater importance to the railroads as a means of revenue they are certain to adapt rates to the emergency in a manner to develop the valued traffic.

One mill at Portland is now running night and day on eastern orders, and various others have been kept busy. The timber resources of Oregon are approximately inexhaustible. No one can conjecture how many billion feet of untouched stumpage the state contains, hence the lumber industry there has a long lease upon an existence which, it is hoped, will be prosperous. The Oregon manufacturers, it may be observed, will do well to study the situation and profit by the lessons learned in other timber regions where lumbermen have injured their profits and opportunities by over production and unwise moves of one kind and another.

LOOSE SCREWS.

BY UNCLE PETER.

ONE of the correspondents in the October number of *The Wood Worker* says "when you hear a planing mill owner say our planing machines do not pay their way, you may be sure there is a screw loose somewhere." Now I know this is true and it is generally not much trouble to find which screw it is, if they only look for it in the right place, and when they do find it the best way is to either tighten it up, and then if it don't hold put another in its place that will hold.

I once went into the office of a certain mill and the proprietor said to me the same thing. He said he did not know just what the trouble was; he thought there must be a screw loose somewhere as there was something broke down about half of the time, and between stoppages and repair bills the profits of the mill were all eaten up, besides he did not get out half the work that he ought to. He said he wished I would look it over and see if I could find out what the trouble was. I knew the mill was nearly new and that the machinery was nearly all first-class when it was put in, and there was no good reason why it should not turn out just as much good work as any mill.

The mill was located about a quarter of a mile from the office, and as the proprietor only went over twice a day the whole management was left to the foreman. In the afternoon about four o'clock I went to the mill, and after marching through shavings nearly up to my knees, I came up to a machine standing still, while the young man who had charge of it was grinding a set of knives upon a grindstone that was neither round, oval or three-square. I asked him why he didn't turn off his grindstone. He said he didn't have time. I then inquired for the foreman. He said he guessed I would find him over across the way in the saloon, as that was where he generally hung out "when he ain't here." I went over to the saloon and found him sitting at a table with a glass of beer in front of him, and judging from his appearance I concluded that the cares and anxieties of the planing mill across the street did not weigh very heavily upon his mind.

He went over to the mill with me and complained about this thing and that, and according to his notion there was nothing right in the whole mill. I began to think so too, but not from the same causes that he laid it to. The tool room was enough to make a man sick to look at, broken knives, banged-up cutterheads and such stuff was scattered in all directions. I thought to myself that a beer saloon, no matter how well it was conducted, was a mighty poor place to run a planing mill.

In the morning I called on the proprietor again at his office. I learned that he was in the habit of going to the mill at nine o'clock in the morning and three in the afternoon, and spending about half an hour each time. When he asked me if I had found out what the matter was I told him I thought I had, but would rather he would find it out himself if he choose to do so. I suggested to him that he go over at his regular time in the morning, and then go back again in a couple of hours, and he would find where the screw was loose without my telling him. He said he would do so and I left. I found out afterwards that he did not only find out which screw was loose, but that he replaced it with one that would hold without any help from a screw-driver, and although it took considerable money to put the machinery in good running order, it is kept so now, and every man attends to his own part of the work, and the mill is now making money.—*Wood Worker*

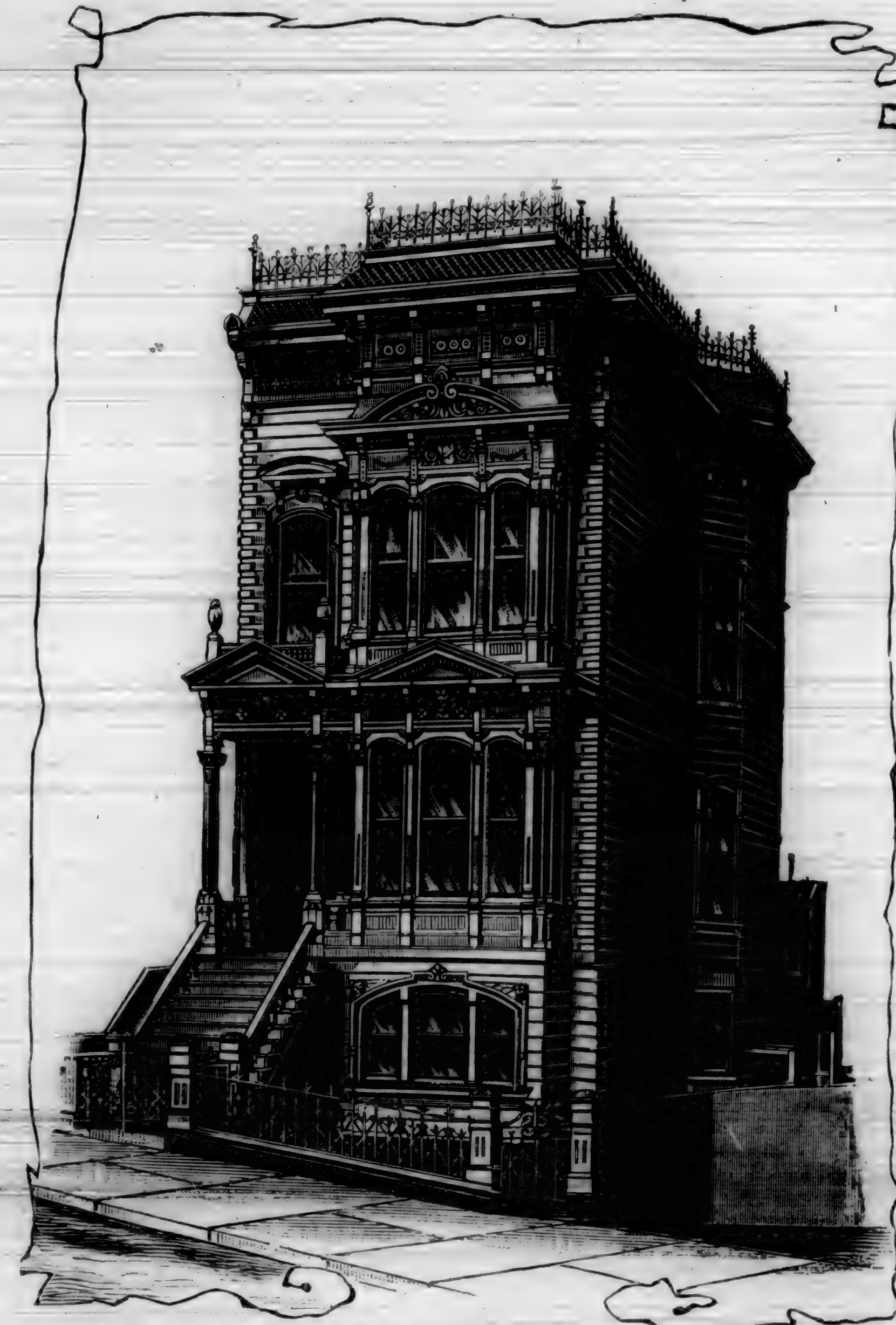


PLATE 5.—SIDE HILL RESIDENCE.

SEE "OUR ILLUSTRATIONS."

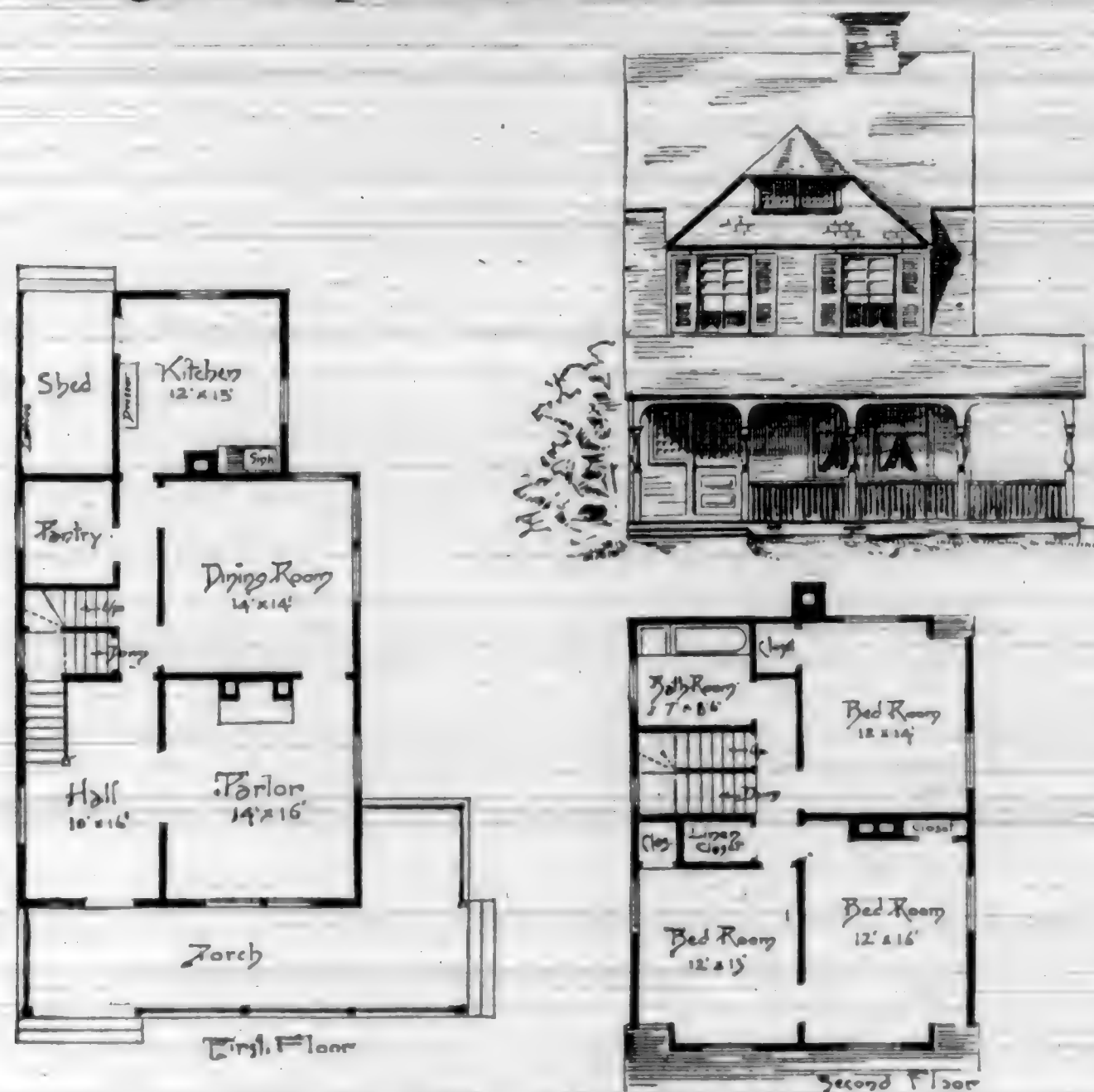
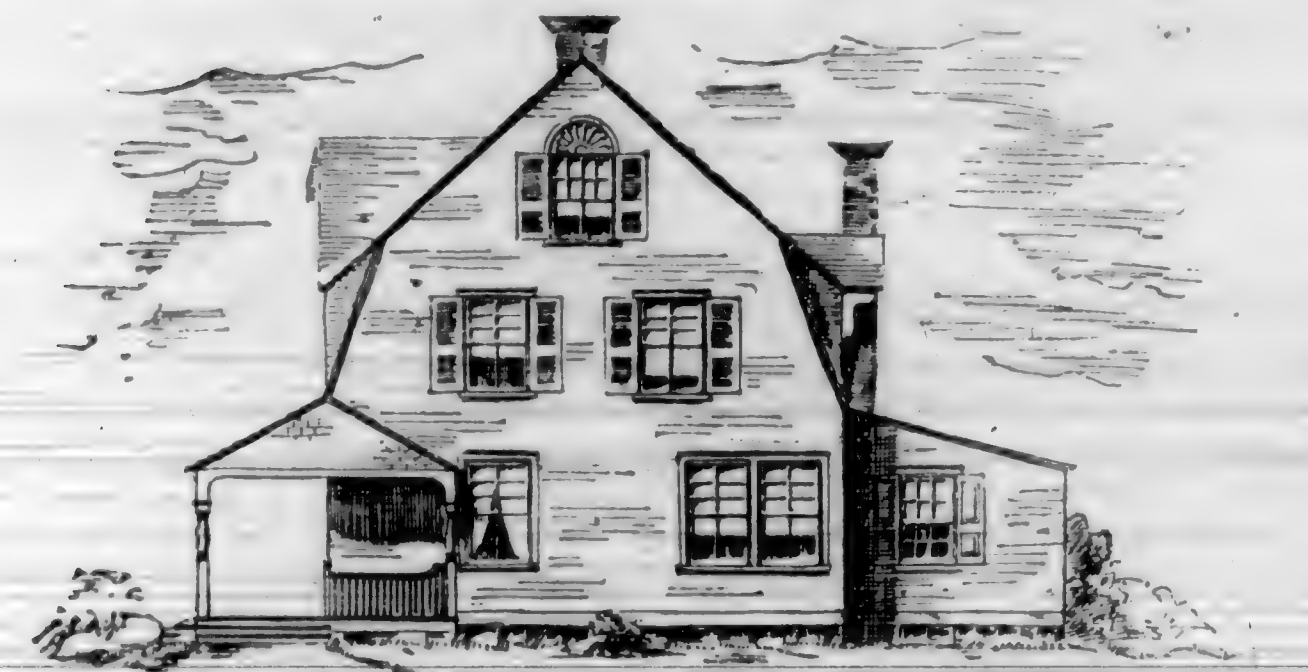


PLATE 6.—"COLONIAL COTTAGE."

See "OUR ILLUSTRATIONS."

A Model Kitchen.

It is possible nowadays, says an authority, by spending money lavishly, so to build a kitchen that the most ingenious of servants cannot keep it otherwise than clean. One need not waste upon her unappreciative soul the costly tiles with which one lines the bath room; but may substitute for them the glazed bricks that are as highly polished, and that will make the floor, the chimney, the walls, if desired, and even the ceiling, as easy to clean as a breakfast plate. Once built, no whitewasher and no painter would be needed for such a room, no smoke need cling to its walls for an instant, and no odor of cooking would be perceptible in it, even if it were used for generations. And the temperature of such a room need not reach the great height unavoidable with plastered walls, which permit the warmth of the chimney to be perceptible through their surface, and thus both the good health and good temper of the cook would be maintained. As for coloring such a kitchen may be precisely what one pleases, for the bricks are made in all hues, and they may be laid in patterns or in wide surfaces of one tint from floor to ceiling. Lastly, as such a room would be fireproof, a sliding or swinging iron door would so isolate it that no kerosene quickened fire and no careless upsetting of lard could bring destruction to the room itself of which a little water would not clear it.

Lumber buyer to inspector—"Is this car of lumber of uniform length and thickness?"—Inspector—"I can answer as regards length, but cannot as to thickness."—Lumber buyer—"What about the lengths?"—Inspector to buyer—"Uniform, sir at one end."

Trap Seal Protection.

PATERSON, N. J., October 25th.

TO THE EDITOR.—As you have invited further discussion of the very important subject of trap seal protection, I beg leave to submit the results of my experience and observation in that direction. The experiments submitted by your correspondent (Mr. Putnam) in your issue of September 1, demonstrate that an S trap of ordinary depth of seal, if vented to the roof, will, when not used, lose its seal by evaporation in from nine to eleven days, and that a similar trap, unvented but open at both ends, as is the case in practice, will lose not exceeding one-thirty-second to one-sixteenth of an inch in ten days. Accepting these data to be correct, the conclusion is inevitable that venting to the roof is indeed a most untrustworthy practice.

But these experiments equally demonstrate that if the conditions of an invented trap as regards evaporation can be maintained, and at the same time the seal of the trap be protected against siphonage, then the simple S trap of easy curves and uniform calibre is incomparably better than any other. Siphonage can only be prevented in this form of trap by the free admission of air on the sewer side of the seal whenever a partial vacuum is formed in the pipe. This is now sought to be secured by back-vent-pipes to the roof, but with disastrous results to the seal on the trap, by evaporation when not in use. But if the admission of air is limited by an automatic device, to the requisites to prevent siphonage, then, during periods of disuse the conditions would be identical with those of an unvented trap, so far as evaporation is concerned. Hence an ordinary S trap vented by such a device, would not lose its seal by evaporation, when not used, in less than from eight to sixteen months, if Mr. Putnam's observations are founded on correct data.

The want of such an appliance has long been recognized, and numerous attempts have been made to produce a device that would successfully meet this requirement. One of the first of these that came to public notice, operated by means of a hinged valve, with depending edges which dipped into a shallow channel of water, while others relied upon the accuracy of mechanical closures of various forms, but alike failed of success.

The latest appliance devised for this purpose, "the McClellan anti-siphon trap vent" is now too well-known to require description, and, unlike its predecessors, has proved a practical success. It performs all the useful purposes sought to be secured by back-vent pipes, and avoids the evils their use entails. It also obviates any apparent necessity for resorting to the so-called non-siphoning traps, all of which acquire their non-siphoning qualities at the cost of cleanliness, since all such traps have greatly enlarged cavities, which gradually fill up with decomposing filth.

I have, during the past two and a half years, specified this vent in many houses in this city and vicinity, and always with entire satisfaction to myself and patrons. Respectfully,

M. HOUMAN.

Bent Wood.

We have all seen the beautiful Austrian bent wood chairs and furniture, which owe their popularity, perhaps, as much to their charming design as to their strength and durability; and most of us have had some curiosity to know how they were made. The *Revue Industrielle* explains the matter, at least so far as the processes could be observed at the industrial exhibition at Budapest. Within a few years the methods of treating the wood have been improved, and the application of the material much extended; carriage wheels, for instance, having their rims made of a single piece of ash or oak, bent to a circle, with great advantage in point of strength and cheapness over those made with felloes sawed in small sections out of straight pieces of wood. The material to be bent is, for furniture, usually red beech, which grows very abundantly in the Hungarian forests. The timber is sawed into strips one and one-half to two inches square, according to the work for which it is intended, and then in a lathe into smooth, round rods. These rods are placed in an air-tight case, where they are exposed for fifteen minutes to the action of superheated steam. They are then so soft and pliable as to be easily bent by hand, and are in this condition fitted to iron patterns, well-secured, and left to dry. The drying takes from two to eight days, according to the size of the piece. When it is complete, the wood is detached from the pattern and is ready to be joined with other pieces, varnished, polished, and sent out in the shape of finished furniture.

The Owner's Acceptance of a Building.

DECEMBER 21, 1888.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

I would like to have some information in regard to taking possession of a building. A contractor had plans drawn for a private schoolhouse, with residence, and took the contract. It being in another town, he put there a foreman to attend to it, and build in accordance to plans and specifications (the other party had also a set of plans), the party representing the owner sent from time to time parties to inspect building, making changes, the owner calling there also several times, also making changes. The local builders made complaints to the owner, but on examination they were not verified: the owner made no complaints during the work.

Finally the owner was notified by contractor that the building was completed, and to call and accept it. The owner called, moved in, and did not object, and lives in the building. I understand three-fourths of contract has been paid, but he refuses to pay any more. I am called in as an expert, but I am under the impression that after having been there himself, and having had other parties there to inspect work, and taking the keys without any objection, that he formally accepted the work and has to pay balance due to contractor. After having taken possession, he made all kinds of changes, without notifying contractor, and wants me to charge it to contractor's account.

By letting me know the customary rules, or referring me to similar cases, you will confer upon me a great favor.

I am yours respectfully, SUBSCRIBER.

[The law is well settled: that the owner does not accept a building by taking the keys and living in it, nor does he thereby waive in the slightest degree his right to have the contract fulfilled to the letter before he pays the contractor. His visits to the building while in progress do not alter the contract, or put him under any obligation to accept work not in accordance with it; and if he orders changes at those visits, he only makes himself liable to pay a reasonable price for them, if they increase the actual cost of doing the work. Whether, after moving into the house, he can have changes made by other parties without notifying the original contractor, and charge them to the contractor's account, is a different matter. If the changes are altogether outside the contract, he is, of course, not entitled to make the contractor pay for them. If they were necessary in order to bring the building into conformity with the contract, he ought to have notified the contractor that they were required, and have given him reasonable opportunity for making them himself, before employing other persons to make them; and it has been held abroad that where this notice was not given the contractor was not liable for any part of the expense. Aside from legal technicalities, however, it would probably be fair to both parties to have the contractor pay what it would have cost him to make the work conform to the contract, as nearly as can be estimated, and let the owner pay whatever it actually costs beyond this.—Eds. American Architect.]

Wasted Energy.

It is a fact pretty well known that a very liberal percentage of the total inventive genius of the country is expended in inventing things not needed, nor likely to be needed. Before going about inventing something it is wise to use diligence in the direction of finding out whether there is likely to be a demand for it. Mere ingenuity to devise, unless well balanced, is quite likely to go astray. When some mechanical arrangement is found in use—some old-time device that readily shows inherent defects in some of its operations—before spending much time in arranging to supplant it, it is wise to consider all the reasons why it has remained in use. Perhaps a little time spent in reflection and study may save a good deal of time and money. If the arrangement referred to is something in common use, the probabilities are that a good many men have seen its defects, and puzzled themselves over replacing it, hence it is not wise to believe that the first thing thought of is going to accomplish the purpose. The very thing looked upon as a defect may have an important bearing in permitting the accomplishment of some other end, and may be one of the inevitable imperfections submitted to in preference to a more important defect.—*American Machinist.*

"We often see two young men start out in life with apparent equal advantages; one makes a success and the other a failure. A perfect index of the cause, and usually the cause itself, is that one thinks of his work and the other of his wages." We find this in an exchange. There is lots of truth in it.

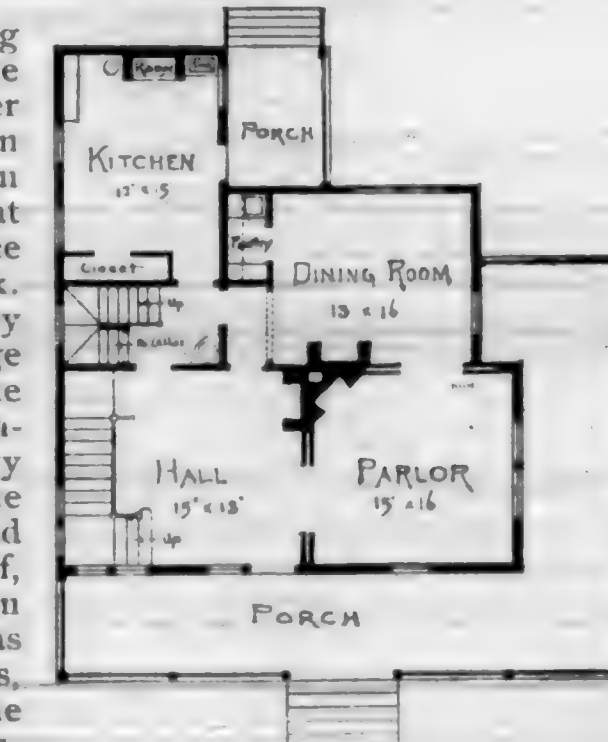


PLATE 7.—A COUNTRY HOME.

See "OUR ILLUSTRATIONS."

New Publications.

NOTES ON THE ART OF HOUSE PLANNING. By C. Francis Osborne, Architect, Assistant Professor of Architecture in the Cornell University. Cloth. Published by William T. Comstock. Price \$1.

This little work will be found to be of great value to draughtsmen. It embodies a portion of the notes used by the author with his class in architecture at Cornell. The author, finding that they had apparently encouraged the cultivation of a field practically untouched as to detail, issued the notes in book form as a stimulus to the younger generation of architects to embody in their work the principles of good planning. The introductory chapter deals with the general subject of planning, which is described as the act of so shaping and disposing the various interior divisions of a building that it shall best serve the use of the occupants for whom it is designed. In this book only the simplest elements are set forth, as to extend the investigation of the subject would tend to defeat the purpose of the author. Illustrations are freely employed throughout the pages and greatly assist the reader in grasping the author's ideas. The author tells how to proceed in laying out the plans for a house, dwells upon the skeleton or outline and presents a chapter upon the entrance, which he considers as composed of three parts, the porch, vestibule and the entrance hall. Chapters are also presented devoted to the dining-room, drawing-room and parlor, library, kitchen, billiard-room, and bed-room floor.

Building by Contract.

WE frequently hear complaints made by parties having houses built by contract that the work is poorly done, that it is not executed according to the specifications, etc., etc. The complainant says that the builder has cheated him, not only in the quality of the materials employed, but in the manner in which the work was done. Too often this is true, and the grumbler has good cause for his fault-finding. But there are usually two sides to a question, and we will give the builder a chance to defend himself before we condemn him altogether.

He will probably argue that he must live, that competition is sharp, that he is anxious to secure the job, and therefore gave a low figure, which would barely bring him the wages of an ordinary workman, leaving himself no margin for incidentals, unforeseen accidents or expenses. He will plead in his defense that he was unfortunate in being obliged to buy his lumber at its highest price, and various other causes have conspired to place him in an embarrassing position. His only remedy lay in either "skinning" the proprietor or going on and completing the building at a loss. He thought of his family, consisting of a wife and several small children, and decided in favor of the "skinning" process. It was not honorable, perhaps, but would it be "honorable" to let his family suffer for the necessities of life? Much can be said on both sides of this question. There are many honorable contractors who fulfill their obligations to the letter whether they make or lose by the operation. There are many people who are bound to find fault in any case, and would grumble and pick flaws in the work even if the builder had done a first-class job and found himself several hundred dollars short as a reward therefor.

There is, perhaps, one man in a hundred who would put his hand in his pocket and reimburse the builder when he was convinced that he had lost money in his house or building. It is barely possible that there is one such man in a hundred who possesses such a sense of justice, and has a conscience and a heart. But as a rule the proprietor who finds that he has saved money at the expense of his builder considers it a reason for self-congratulation, and does not concern himself to "put himself in his place," or to waste any sympathy upon him or his family.

We would suggest that those who find the contract system unsatisfactory go back to the more primitive method of day's work and have their work done by the day. The usual custom in day's work is for the master builder to charge a certain sum for himself and so much for each man employed on the building a certain percentage of which goes into the builder's pocket and constitutes his profits. Another plan has recently been tried which has proved a success, and seems to be more satisfactory to all parties concerned. This plan allows good wages for the builder and men employed upon the building, and the builder receives in addition a percentage on all material used, which secures to him a fair and sure profit. He can work, therefore, with a good heart and a full stomach, and has no motive for doing poor work or cheating his employer in any way. It seems to us that for the cheaper class of buildings, at least, this method of doing business offers a reliable and sure preventive against all the evils, resulting from the contract system.—*Architectural Era.*

The Uses of the Trade Paper.

The uses of a technical paper to the mechanic are multifarious. It affords him access to current news of interest in his trade, keeping him well informed respecting the latest improvements in machines and processes; it puts old things in a new dress, presenting the familiar facts under such various aspects as to stimulate his thoughts with the surprise of discovering that there should be so much that he never dreamed of in what he supposed he knew all about; it explains the why and wherefore of doing this, that and t'other in his daily workshop practice, and thus, unconsciously to himself, trains him to the habit of investigation, which is the most valuable service of all. It is this discipline of the mind, derived from the habit of thinking and investigating, that fits the reading mechanic to take the lead of his fellow workmen. It is the reading workman who makes the inventor, and to this class, whose mental training is largely obtained from the technical journals, that we owe much of the progress in the mechanic arts.—*The Manufacturer and Builder.*

Intermediate Numbers of the California Architect.

It will be the study of the new management to make this Journal so complete in its various appointments, that it will be sought after by every one connected with the building interests. If sufficient encouragement is received, we will issue Intermediate Numbers, giving a complete list of building operations all over the Coast. This can only be done by the support of those interested. In order to make it a success, additional subscribers and advertisers must be secured. Those noticing this article who are willing to forward the movement will please correspond with the Manager at the office of this journal.

Durable Damp-Courses.

THE matter of the durability of damp-courses was investigated last month in one of the courts of the London suburbs, through the prosecution of a builder, at the instance of the Wandstead Local Board on the information of Mr. J. T. Bressey, its surveyor, "for that he, on November 9, was in High street, Wandstead, erecting a new building, the wall thereof being without a proper damp course of sheet-lead, asphalt or slates laid in cement or other durable material, impervious to moisture, contrary to the by-laws of the Local Board and contrary to the statute in such case made and provided."

It appeared in the testimony that the defendant had used Anderson's asphaltic felt, which, according to the statement of Professor A. H. Allen, President of the Society of Public Analysts, contained 54 per cent. of coal-tar oil, 28 per cent. of fibre and 18 per cent. of sand. Each grain of sand was unalterably durable, but he would only treat the sand used here as an accessory. Practically, there was two-thirds of pitch to one-third of fibre, and in use the fibre prevented spreading of the pitch. This material had been specified to be used by the architect on account of its flexibility. He used it for one reason—because of the possibility of settlements, which could not be guaranteed against.

Mr. Bressey, the surveyor, said, that within his experience, walls with a damp-course did occasionally subside; they were liable to a slight settlement. In his district slates were used for damp courses, two layers of slate in cement. There was first a layer of cement, then slates, a layer of cement, then slates, and another layer of cement, sandwiched in fact. If a wall subsided he acknowledged the slates would crack at that particular place, while Anderson's substance was pliable.

Professor Allen caused some amusement by his statement that, as to the durability of the felt, "he could only speak by analogy—that he had not lived long enough to be able to testify as to how long it would last. It was principally composed of pitch, and the Egyptian mummies were preserved in pitch." In cross-examination, he, however, admitted that the pitch used for the Egyptian mummies was not an artificial pitch; it was a natural asphalt. He said Watts' "Dictionary of Chemistry" was an admirable compilation, but its definition of asphalt did not fit in with his asphaltic felt. That referred to natural asphalt.

The case was dismissed, but without costs against the Local Board, as the Bench thought it had acted in perfectly good faith. The surveyor of the Local Board does not appear to have had the experience of the Metropolitan Board of Works in mind as they endorse the use of a bitumen damp-course, consisting of heavy hurlap or lagging impregnated and coated with bitumen (natural asphalt without any admixture of coal-tar), which has the merit of yielding without cracking, in case of settlements, which often occur where the foundations are built on different conditions of subsoil.—*Building.*

To know the resistance which a piece of timber offers to any force tending to change its form, is one of the most important species of knowledge that a carpenter has to acquire.

Cracks in floors, around the skirting board or other parts of a room, may be neatly and permanently filled by thoroughly soaking newspapers in paste made of one pound of flour, three quarts of water and a tablespoonful of alum, thoroughly boiled and mixed. The mixture will be about as thick as putty, and should be forced in the cracks with a bent knife or other handy tool. When dry, it will be harder than the boards.



PLATE 8.—"ALHAMBRA COTTAGE."
See "OUR ILLUSTRATIONS."

Building Activity in Jerusalem.

Jerusalem, writes a correspondent resident in that city, is steadily increasing in size, building operations being actively carried on in spite of the circumstance that most of the town is situated on barren rock, and has neither commerce nor industry to boast of. Everywhere and continually new buildings are springing up, whilst new parks, public institutions and churches are improving formerly desolate spots. New large dwelling houses are constantly being built by wealthy Jews, but the barrack-like, one-storied appearance of these structures is far from adding to the beauty of the city. The Rothschilds are building a new hospital on the Hill of God's Peace, and close by an Armenian Church is in course of erection. The Russians, too, are busy building—as for instance, a consulate, a church, a hospital, and residence for their pilgrims. Close to this hospital, a handsome residence for German pilgrims has just been finished. On the Olive Mountain the Russians have also built a look-out tower, whence a splendid view is obtained of the neighboring country. Some Greeks are building cafes and bazaars, and Armenian shops.

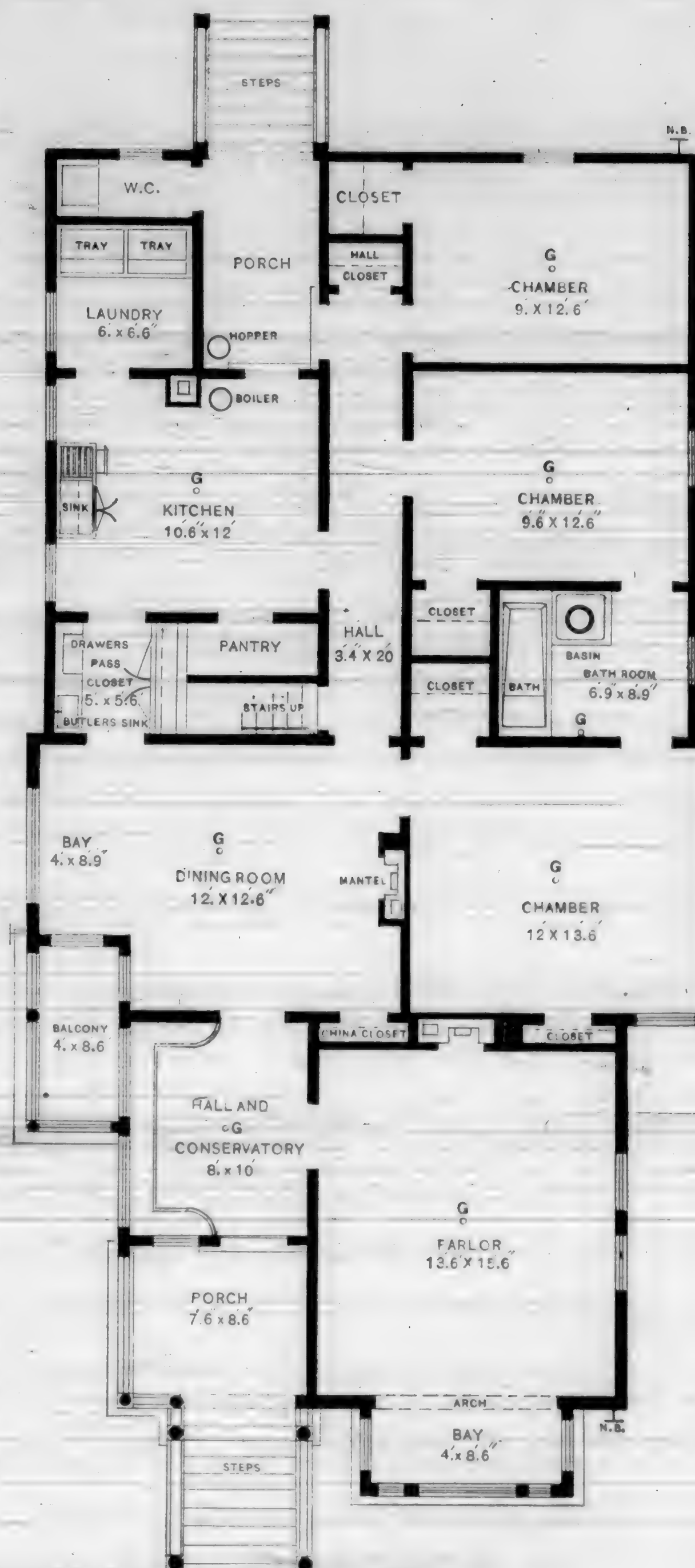


PLATE 9.—PLAN OF "ALHAMBRA COTTAGE."

Brick Supply.

The number of brick on hand for early building operations is small, with an active demand, and prices higher than they have been within the past year.

The brick-making facilities of the State have been largely increased over those of five years ago, but still the stock carried over to meet the early trade is light, and the market is likely to be "close run" for those of good quality before the spring supply of new bricks can be got to market.

The brick manufacturers will, of course, be stimulated by the excellent outlook, to get to work at the earliest practical moment, and fire up their kilns with as little delay as possible, to meet the demand in prospect, which undoubtedly will be equal to the supply, however large.

This is the Only Journal Published on the Pacific Coast in the Interests of Architects and Builders.

When this Journal was started in 1879, a rule was made as follows: Advertisements alone inserted that refer to materials used in the construction and furnishing of houses, and to matters and trades belonging to the building interest. No others received. This rule has generally been strictly observed, and only advertisements of the character mentioned will be accepted. Our rates are as low as any other class Journal printed in the country—that is, of equal circulation. We respectfully solicit your patronage, and, at all times, we are ready to do what we can to assist those who may advertise in this Journal.

Our Summary of Building News.

For the present year, we have made extra arrangements for procuring building news from all portions of the State. Architects from every part of the Coast, have sent us letters, containing assurances of good will, and welcoming the grand change made in the management of this Journal. They feel now, that they have a means of communicating their ideas of building improvements to the public generally, and they willingly will do their part to make this department of the CALIFORNIA ARCHITECT, a grand success.

Our New Head-Quarters.

After an occupancy of ten years in the set of offices to which all our patrons have addressed us during the history of this Journal, increasing business has compelled us to secure more commodious rooms. A better location could not be found than the one we have selected. Situated on California street, next to the Bank of California, they are in the very heart of our commercial, insurance and banking interests.

We have secured a suite of four rooms, abundantly supplied with light, and having the advantage of the sun's rays in every room. The first two rooms—in size, 15 feet 6 inches by 36 feet—will be used as an office and reading room. It is also intended for the use of the Chapter of Architects, and will be peculiarly fitted for holding the Architectural High Jinks on a Saturday afternoon. In fact, that was one of the reasons for securing such spacious rooms as ample accommodations are found for the "Social Tea" of the entire Profession on Saturday afternoons, after the fashion of those held in New York, Boston, etc.

Two rooms, 16x34 feet will be used by the "Architectural League." This is an association formed of draughtsmen and students connected with the various architects' offices. By a vote of the "Chapter of Architects," all draughtsmen and students are allowed to leave their offices at 3 P. M. on Saturday afternoon for the purpose of attending the instruction classes under the direction of G. H. Sanders and Albert Pissis.

It will be seen that the entire Architectural Associations of this city are thus congregated in the one set of offices. The prominent feature of the whole project is to establish a

READING ROOM AND LIBRARY.

Which shall be always open to those engaged in the architectural profession, including architects, draughtsmen, students, etc.

VISITORS ARE ALWAYS WELCOME.

Visitors from the country will receive a hearty welcome. It will take a few weeks to furnish offices in the manner intended, and to arrange our files of papers, periodicals, etc., but we will make you feel at home should you favor us with a call.

Architectural Reading Rooms.

In connection with this office, will be found an elegantly appointed reading room. Files of the following named will be always on hand: "AMERICAN ARCHITECT AND BUILDING NEWS," "American Builder," "Architectural Era," "American Machinist," "Builder and Woodworker," "Brick, Tile and Metal Review," "Building," "Carpentry and Building," "Clay Worker," "Canadian Architect," "Hydraulic and Sanitary Plumber," "Inland Architect," "Lumber World," "Manufacturer and Builder," "Northwestern Lumberman," "National Builder," "Sanitary Engineer," "Scientific American," "Sanitary News," "Painter's Magazine," "Western Architect," and a great many others. These rooms are open to all who may favor us with a call. We will be pleased at all times to be favored with a visit from those interested in building matters.

San Francisco Chapter, A. I. A.

The regular monthly meeting of the Chapter was held on January 4th, Vice-President W. P. Moore in the chair.

Further time was granted to the Committee appointed to confer with a Committee from the Builder's Association in reference to a form of "Memoranda of Contract" to be filed in the Recorder's office.

Resignation of A. Laver was received. Referred to the President and Vice President for consideration.

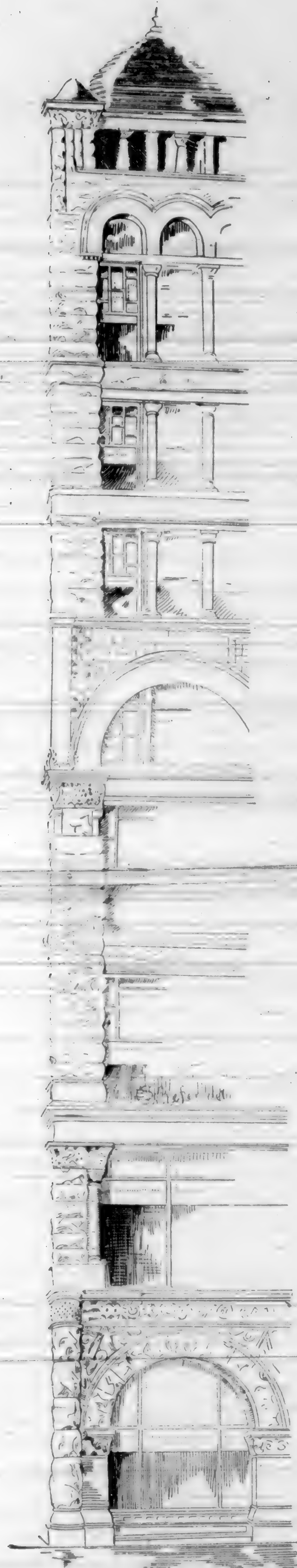


PLATE 10.
SEE OUR ILLUSTRATIONS.



PLATE II.—A STUDY IN THE "OLD COLONIAL" STYLE.

See "OUR ILLUSTRATIONS."

Sketch prepared for this Journal by C. Bryant Schaefer.

Hints to Mechanics.

Building.

FIND out everything about your business that you can. Read, if you can, all the building papers and books on architecture, the building trades and all kindred subjects. Study, and think over what you read.

A good carpenter should have a fair theoretical knowledge of stone masonry, brick-laying, plastering, plumbing, gas-fitting, tinning, painting and slating.

The more he knows of these subjects the more he is worth to his employer and to himself.

The reason is obvious.

System in doing work holds the same relation to good workmanship that "cleanliness does to godliness"—therefore, whatever you do, use some system in doing it.

In hanging doors or sashes, have one regular rule for doing the work.

Be sure the rule is a good one, then stick to it.

If you have the control, see that all doors in each story are the same size, or as many as possible.

Much time and labor may be saved by attention to these small matters.

For example, in hanging a number of doors which are of the same size, the time expended upon measuring the correct position of the hinges may be saved in a very simple manner, which is as follows: Take a lath and mark upon it top and bottom, the exact position where the hinges should come; drive in at these marks sharp pointed brads, and you have a gauge which may be used in hanging all doors of the same size. In using it all that is necessary is to place it against the edge of the door with the top of the lath on the level with the top of the door, give it a sharp tap of the hand, when the brads will mark the exact position of the hinges. The same gauge lath may be used in marking out the position of the hinges of the style of the door frame, excepting that a nail should be driven in the bottom of it, so that there may be sufficient room left at the bottom to allow for the proper play of the door; the use of a gauge lath in the case referred to, is an example of its use. It is of equal utility in hanging many other pieces, such for instance, as inside and outside blinds, shutters, etc.—*Building.*

THE object of bridging floors is not only to prevent the joists overturning, but it is principally to distribute the weight resting directly on joists immediately supporting it, thus considerably stiffening the floor as a whole. The pieces of timber of which the bridging is composed may, and do, act either as ties or struts, according to the manner in which the load is centered; and in case of a moving load, as of a person passing over the floor, will act alternately as ties and struts in gradual succession. The strutting being placed obliquely to the joist, the strain is practically neither that of a direct tie, nor of a direct strut; that is neither simple compression nor simple tension in either case, but is in both modified by a cross strain. There is some tendency of the joists to turn over, which augments the cross strain, so that of the three strains, the cross strain is of most importance.

Now, it is a very well known rule that the strength of a beam or piece of timber subjected to a cross strain is directly as its breadth and as the square of its depth; and it will be obvious therefore, that the system of placing the bridging with its greatest size vertically, is the proper one and is a good deal stronger than the system usually employed. In the first system, the bridging is reversed alternately, so that the pieces may butt against the joists at points directly opposite one another, which tends to further strengthen and stiffen the floor.—*National Builder.*

An attractive catalogue is a handsome addition to a library. To an architect, manufacturer's catalogues are a necessity. We have just received a beautifully illustrated work, from the well-known house of Henry Huber & Co., of 81 Beekman street, New York, containing over 200 pages of engravings, illustrating wash basins, water closets, urinals, hoppers and everything else pertaining to the plumbing trade. Architects or plumbers who have not received a copy should address as above.

Always keep a can of varnish well corked, but airing it for fifteen minutes before using. When a can is first opened it is a good plan to leave the cork out over night.

PRACTICAL HINTS TO CARPENTERS.

BY OWEN B. MAGINNIS.

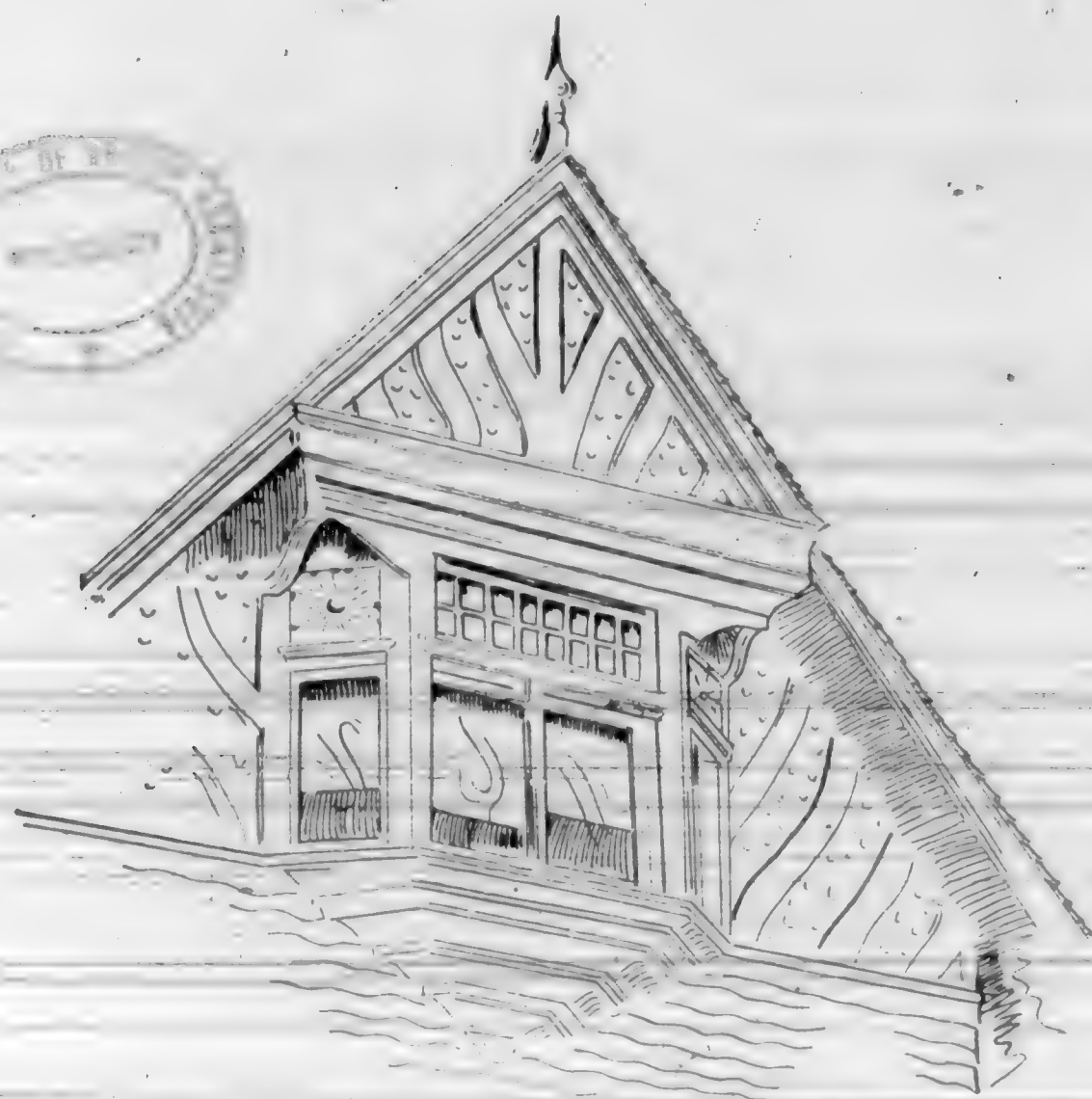


PLATE 12—SEE "OUR ILLUSTRATIONS."

Applicable to San Francisco.

A St. Louis boss plasterer, who has grown gray in the service, in speaking of present day methods of contract letting by the lowest bidder system, said that mistakes in figuring accounted for most of the financial miseries of building mechanics. Said he:

"As a class we are not collegiate graduates, and can handle men and materials much better than a problem in algebra or even the simpler mathematical calculations which seem of late years to be the great essential to our success. No wonder builders without strong backing go to the wall with their hands full of work, and that the mechanic's lien has become a very natural consequence of the errors, misunderstanding and complications which the present system of bidding creates. We are asked to figure on the plastering work of buildings every day, and it would sometimes puzzle a Philadelphia lawyer to get at the true cost of work. The mechanic estimates after his own fashion, and often comes out of the contract poorer than when he began. No wonder so many are tempted to do slipshod work when the owner obtains much more than he pays for. The same is true of all the mechanical trades connected with building, and the liability to make error generally accounts for at least half the difference between the highest and lowest bidder. Sometimes it is the error of the former, sometimes of the latter. One builder in this city, noted for the care and closeness of his estimates, once forgot a little item which cost him nearly \$5,000. He had cause to remember it afterwards. The instance serves to show why the quality of work in these days has deteriorated, as some allege.

"Before the war plastering work was taken by the square yard. The architect of course knew the surface to be covered, and could make almost an exact calculation as to cost. He employed a competent man who had the incentive to do good work, knowing that he was sure of a living price. There was not the risk of making errors that distinguishes the present system. It is now a free-for-all race, and the one in first gets left financially in a very large proportion of cases."

A French exchange gives us a new plan for deadening floors without loading the planks. Fill the empty parts between the joist works with liquid lime thickened with chloride of zinc. This will prevent noise, fire, vermin, and the house will be rendered healthy. Workmen using this preparation should wear guarded spectacles, and wash their hands well after the work is completed.

ONE of the most important and too often neglected things in setting jambs, is to block behind the jambs for the screws of the hinges. In rebated jambs this blocking is indispensable; so measure down about 6 inches from the head and 9 inches from the floor, and nail in a 4-inch pine block on the stud, behind the jambs, to secure the screws. Builders should watch sub-contractors in this small matter, as the screws pull out when they have no thickness to hold to.

If the casing have a beaded or moulded edge without corner blocks, the top corners should be mitred with a mitre jack made in the following manner:—Take a piece of 1 1/4 inch stuff an inch or so wider than the width of the casing, about 2 feet 6 inches long, nail a fence or piece of 1/2-inch strip on both edges, rising above the surface the thickness of the casing. Now take a bevel, set it exactly, not nearly, but exactly, to an angle of 45 degrees, or from 3 to 5 inches on the steel square, (reverse the bevel to see if the angle be true) and mark two reverse mitres across the edge of the strips, and the surface of the bottom or wide piece and over one edge—the edge which has the short corners of the bevels. Saw deep enough into the wide piece on this marked edge, to cut through the head or moulding on the casing, when it is placed between the fences against the one which is sawn into. After putting the casing in its place and marking the top corner with a knife, the casing is placed against the fence with the mark exactly at the saw cut, and having the saw outside the mark, so as to slightly leave it on the stuff—the mitre can be readily and instantly sawn without using a bevel or a template, which are inaccurate and unmechanical. The bottom end must fit tightly down on the upper end of the case block; if not then the end must be scribed to the block with the compasses before mitreing.

All casings ought to be level across the face, so that when a straight-edge is placed across the opening, it will touch all their surfaces. The head should also be straight with the stiles, and all the mitres and joints tight and well nailed. All mouldings and back bands can be mitred and nailed on when the above is done, and the mitres will come tight.

In setting back window jambs, or on those window frames which have outside blinds with a panel back below the sill, the following is the best way to proceed: First, cut with a chisel on a straight line, the groove (where it stops against the sides) out of the frame casing, both top and bottom, on both right and left casing, and clean all the mortar and dirt out of the plowing. Now take the short rebated jamb for the head, and getting upon a high horse, place it with its rebated tongue on the head groove, and mark exactly, with a sharp knife, the inside corner on the left and right hand groove. Square these marks over the face and lay out a dado 3/4 wide towards each end. Dado this laying out 3/4 deep. Next take the right and left jamb and square one end of each in pairs. Lay out a tongue 3/4 wide from these square ends and 3/4 thick, gauged from the faces. Cut these tongues out and run a rebate—plane shaving of the back side of the tongues of the head jamb and sides, and take an arris of the face side. This will let the tongue go easily into the grooves in the frame. Next, nail the head on the sides, keeping the front edges flush, and break off the over length of tongue on the head piece. Set the tongues of the jambs in the frame grooves, and drive the jambs in till they sound solid. Use a block, so as not to bruise the edge in driving. When they are in solid, mark the groove at the sill, and see if the jambs are not too wide for the plaster; if they are, the over wood must be sawn or planed off until they come flush with the plaster. Take the jambs down when this is done, and lay out a 3/4 dado from the groove mark. This dado is to receive the foot-head. Then take the foot-head, cut it to the length of the dados of the head, and allow 3/4 for a tongue on each end. Work these tongues on 3/4 deep, and nip the foot-head to the width of the jambs. Ease the tongue as well as the jambs, and nail the head side and foot-head together afterwards, set them up in their place, and when they are driven home, toe-nail them into the casing.—*Canadian Architect.*

To clean paint off windows, dissolve some soda in very hot water and wash them with it using a soft flannel. It will entirely remove the paint.

JAN 15, 1889.]

THE CALIFORNIA ARCHITECT AND BUILDING NEWS.

13

LIVING UP TO SPECIFICATIONS.

FOR several years past we have been urging upon the roofers the advantage of better roofing material and more accurate roofing specifications. It has been largely due to *The Metal Worker* that guaranteed roofing plates have been brought into the market, and it is also to be credited to our efforts that certain plates have been stamped with brand and gauge mark in order to make guarantees effective. Our voice has also been heard to a greater or less extent in urging architects to be definite in their descriptions of the kind of material that is to be employed in their roofs. We have at least helped to make it possible for them to specify good plates and to know that they obtain what they specify. In all respects we have thrown our influence in favor of the best materials, the best workmanship and the best roofs. In this we have helped the tin-roofing trade out of the hole in which it was struggling some time since and put it upon solid ground again.

With the advent of guaranteed plates tin roofers have found themselves held down by specifications which are difficult to avoid, and to comply with which leaves them no chance for anything else than an honest profit. It is not strange, therefore, that we hear in various parts of the country of efforts being made by those who are not content with legitimate profits to have specifications changed. We hear of tinners making strenuous efforts to have one other plate substituted for the one that is specified by the architect, going so far in some cases as to pledge their own reputation as practical men that the second plate is quite as good as the first, if not superior to it, and asserting that a better roof will result from such a substitution than from allowing the architect to have his own way. The object of this, of course, is to make a profit, for no one would go quite so far from disinterested motives. Now, at this time we do not propose to enter into the merits of such pleas for substitution, nor the qualities of the different plates that may be employed; occasionally architects may make mistakes, but for the most part they know what they are doing. What we want to talk about is the bad policy of substitution, for we believe it a suicidal policy, one that is ruinous to the business. Whatever may be the chance profit to be got out of a job in which a change of plates is made, the interests of the roofer in the long run are upon the side of having good plates specified and the specifications strictly adhered to. Changes beget changes, and the habit once established there is no stopping it. Therefore we caution all roofers who desire to see their trade prosperous in the best sense of the word, and who are anxious to give their clients the best possible roofs, to take the stand that specifications must be adhered to, regardless. Do not attempt to change a specification after it is made, but rather spend your strength with the architect to have the specification at the outset prepared according to your judgment in a way to secure the very best roof.

The short-sighted policy of having specifications changed, in order to secure a profit in the plates at the expense of the roof, must be manifest to any one upon a moment's consideration. It is a game that two or more can play at as well as one. If Brown, for example, objects to the specifications branded "A" and desires to substitute plate branded "B," he must remember that Smith, his competitor, by the very fact of his success in obtaining changes, has a strong argument to plead for the substitution of plates branded "C," or "D," or "E," and so it goes on, every change making it surer that the roof will be poorer. Are any of the roofers among our readers forgetful of the condition of the roofing trade a few years since, when decent roofing plates were not in the market and when good tin roofs could not be had, no matter what price was offered for them? Have they forgotten the demoralized condition of the tin-roofing trade growing out of the large use of wildcat brands, and plates, even with makers' brands upon them, that were so flimsy and so ill adapted to the purpose as to amount practically to no roof at all? Have they forgotten the time when the roofs were a reproach and a by-word, and when no one would have a tin roof who had any respect for himself or the building to which it was to be applied? Such things existed only a few years since over a large portion of the country, and the change for the better, which has taken place in the interval, has been brought about simply by making definite specifications possible—specifications which cannot be easily avoided, by dishonest competitors. Therefore, we say again it is to the interest of all honest roofers to see that specifications are lived up to and not allowed to be broken down by substitutions even in those cases where the substitutions are advantageous. Never mind how irksome the contract may be, follow the



PLATE 13.—SEE "OUR ILLUSTRATIONS."

specifications literally when the job comes to you, and insist that the specification is also literally followed when the job goes to your competitor. If the idea of changes in specifications is once allowed to become dominant in the trade, the last safeguard in the tin-roofing business will be taken away and the trade will reach a condition ten times worse than that from which it was rescued only a few years ago.—*Metal Roofer.*

Law Affecting Architects.

A person following the occupation of forming plans, drawings and specifications for building purposes, representing himself as an architect, is presumed in law, not only as being such, but to be learned in the profession.

If there is any obscurity in the drawings and specifications, the contractor should apply to the architect for directions to be liable for the consequences.

There is no fixed rule in as to compensation of architects in the United States.

The architect's contract does not survive to his representative. So, if there is a contract to complete certain work for a certain sum, the representative of a deceased architect cannot recover for the part performance.

In competitions it should always be made clearly understood that the drawings, etc., are subject to approval, for otherwise, the party receiving them will be liable for their value whether used or not.

An architect has not the right to substitute another person in his stead.

If the architect fraudulently or capriciously refuses to give proper certificates when required, the builder may maintain an action for specific performance against the architect for damages.—*The Law of Building.*

SALT IN GLUE. Carpenters have found a special use for salt. In heating glue the addition of salt to the water in the outer kettle raises the boiling point, and thus keeps the glue in the inner kettle at a higher temperature.



PLATE 14.—SEE "OUR ILLUSTRATIONS."

Byrkit's Patent Sheathing Lath.

WHEN a man begins to raise up a family, one of the things most talked about in the family circle is the desire to own a "home," in which is pictured out happiness and comfort—the two most important things in life. A lot in a desirable location is selected, and the consultations and advice of architects and builders are sought after, and with the assistance of friends the plan of the house is decided upon, and the home commences to grow. The work is pushed forward rapidly, and the architecture, both outside and inside, is pleasing to the eye, and new features are added and improvements in various things are put into the house; but one of the most important things remains just the same that it has for the last fifty years, and that is the way the house is lathed and plastered. The family move into their new house, which they think is a perfect model of elegance and convenience, and they commence to get settled and live as only those can who have a "home of their own." About this time the house begins to settle, the corners open, the walls crack all up, and they find it impossible to keep warm, or heat the house as it should be, without keeping the stoves or furnace red hot, and even then the cold is penetrating every crevice, making the "home" anything but pleasant. They begin to wonder what is the matter, and why their house is in this condition, for they have expended from five to ten thousand dollars in its construction. The whole secret can be easily explained. They had used the common lath, which adds very little warmth to a house; when, if they had used Byrkit's Sheathing Lath, it would have been very different. It makes every building stronger and warmer, and ties it together so the house can't possibly open or the walls crack so as to loosen the mortar when it settles. The house can be heated and made comfortable with a saving of at least ten per cent in fuel. If this is so, then why is it not an advantage for every one who builds a "home" to use Byrkit's Sheathing Lath? It is always well to remember that there has been improvements in the art of building in every other branch but lathing and plastering.

John F. Byrbee, 104 Market street, is the agent in this city for the lath referred to; samples may be seen in his office and any information will be cheerfully furnished.

The Teredo.

AN article in the *Atlanta Constitution* upon the teredo, the salt water borer, which honeycombs ship timber, piles or any wooden structures exposed to its attacks, is full of interest. Its habitat, it is stated, was originally in the tropic seas, but it was readily carried in the timber of vessels into North American or European waters. It will bore through a piece of timber until it becomes a mere shell and collapses under the weight it supports. A peculiarity of the teredo is that it bores and feeds itself with what is regarded as its foot, while at the opposite end it has two heads. It is difficult to understand where this seemingly frail creature gets its astonishing power. While the interior of the timber is filled with perforations running with the length and intersecting each other in various ways, no holes appear upon the circumference except very small ones, while those inside are from one-fourth to five-eighths of an inch in diameter. The question naturally arises, how does the teredo get in, and does it ever make its exit? The explanation is that when young and small the borers fasten themselves to a round and generally new pile by means of a suction apparatus in their heads, and bore inwardly with the foot until only the head remains outside. Then they fasten themselves to the very edge and bore and grow. Entering at an aperture of the diameter of a darning needle, they work away until they fill a channel an inch across. The worm usually reaches a length of from one to three feet, but is said to attain a diameter of two inches and a length of fifteen feet on the Pacific Coast, although so far as is known its only food is the sawdust it makes. It is told that instead of crawling inward and onward as their burrowings lengthen, the borers simply grow in due proportion, the head remaining in its place. Their size thus increased, and the log once consumed and broken off, they fall a prey to the fish. The teredo lives and dies with his log. It never attacks floating timber, but a ship riding at anchor with her timbers unprotected by metal sheathings is easy prey, and soon destroyed. Wharves are often sunk by the destruction of supporting timbers by the teredo. The good it accomplishes is by boring into and disintegrating sunken wrecks, timbers and other obstructions in harbors, dangerous to navigation. So far the most successful defence against the teredo is the creosoting treatment for timber.

Bound Volumes of this Journal.

Bound volumes of 1888 are already very scarce. It was only by a careful canvass among our subscribers that we succeeded in obtaining enough of missing numbers to enable us to put together in a bound volume, the complete numbers of the year. We have but TWENTY left. These will be disposed of to those who may favor us with an order, at the rate of \$2.50 each volume.

We also have a few volumes remaining of previous years. These will be mailed to any address upon the receipt of \$2.50 each year, from and including 1888.

Notice of Removal of Office.

This journal, with all its appurtenances, has removed to the spacious and elegant rooms, No. 408 California street, next to the bank of California.

ESTABLISHED MARCH 17, 1868

W. J. HENRY & CO.

IMPORTERS OF
RELIABLE
FURNITURE & CARPETS
MANUFACTURERS OF
ART DRAPERIES FINE BEDDING

18, 20 & 22 ELLIS STREET
MARKET & STOCKTON.
SAN FRANCISCO, CALIFORNIA

Old Homes Made New	50
The Suburban Cottage	1 50
Homes for the People	2 00
Lefel's House Plans	2 00
Water Closets	1 00
Sewer Gas	1 25
Steam Engine Catechism	1 00
Builder's Guide	2 00
Cozy Homes	25
How to Paint	1 00
Cutting Tools	1 50
Universal Assistant	2 50
Rural Architecture	1 50
Wonders of Art	1 25
Grimshaw on Saws	4 00
Dwellings, Reed	3 00
Plumbing, Appliances	1 50



In this and succeeding issues we intend to devote considerable space to information in connection with buildings from every portion of the coast.

Only reliable news will be found in this column. Our custom has been for the past ten years, to furnish only data which could be relied upon. We will not publish rumors of "THIS AND THAT IS GOING ON" unless we are reasonably assured that such is truly the case. In all cases we will file our authority for any statements made in this column. No doubt mistakes will sometimes occur, but these we intend to be a rare exception to our rule of reliable news.

We desire the co-operation of country editors and mechanics to this department of this journal. By spreading the news of building engagement in your part of the country, you enhance the value of your section by proclaiming it a go-ahead community.

Architects should also notify us of "plans to figure on;" we do not charge anything for the insertion of such notices. Remember this journal is in the TENTH YEAR of its existence, and is the only journal published this side of the Rocky Mountains in the interest of Architects, Contractors and Material Men, and the only one endorsed by the San Francisco Chapter of Architects.

CITY BUILDING NEWS.

Broadway, near Van Ness avenue, two-story additions, cost \$2,000.

Bonita, near Polk, additions. Cost, \$600.

Bush, between Kearny and Montgomery, alterations to theater building; architect, F. E. Wilcox; contractor, Ingerson & Gore; cost, \$10,000.

Broadway, near Taylor, two-story frame. Owner, Josephine Ream; contractor, G. M. Salsbury; cost, \$2,500.

Bryant and 4th, stables. Owner, Spring Valley Water Co.; architect, Clinton Day; contractor, Robert Higgins and C. L. Lods; cost, \$17,000; signed, December 6th, 1888; filed, December 11, 1888; limit, 120 days. Payments: floored, masonry to second story, \$4,000; ready for roof timbers, \$5,000; completed, \$3,500; \$5,000, 35 days.

Bush, between Montgomery and Kearny, alterations to Bush Street Theater. Owner, M. B. Leavitt; architect, Fred E. Wilcox; contractor, Ingerson & Gore; cost, \$4,800; signed, Jan. 2, 1889; filed, Jan. 3, 1889; limit, Jan. 26, 1889.

Payments, \$3,200; completed, \$1,600, 35 days. Total cost of improvements will be about \$10,000.

Broadway and Taylor, building. Owner, Josephine Ream; contractor, Geo. M. Salsbury; cost, \$2,300; signed, Dec. 12, 1888; filed, Dec. 20; limit, 90 days.

Payments, \$575, framed; \$575, enclosed; \$575, rough plastered; \$575, completed.

Church, near 23d, additions; cost, \$1,000.

Commercial and Davis, building. Owner, Armour Packing Co.; architect, Chas. I. Havens; contractor, J. Haaf; cost, \$4,000; sureties, Geo. Goodman and T. W. Kipinger; signed, Dec. 18, 1888; filed, Dec. 20; limit, 40 days.

Payments, \$1,000, first story joists on; \$1,000, roof rafters on; \$1,000, completed; \$1,000.

Eighteenth, corner Clara, two-story frame; Owner, A. Wagner; contractor, A. Disher; cost, \$2,700.

Filbert, near Polk, additions. Cost, \$800.

Fillmore and Waller, additions. Owner, Mr. Meade; contractor, Zwierlein; cost, \$2,000.

Fifteenth, near Castro, cottage. Owner, Sophronia W. Bunker; architect, Wm. F. Smith; contractor, W. N. Concanon; cost, \$2,273; sureties, Franklin P. Bull, Wm. H. Judd; signed, Dec. 28, 1888; filed, Jan. 4, 1889; limit, 90 days.

Payments, \$568 25, framed; \$568 25, brown coat; \$568 25, completed; \$568 25, 35 days.

Fillmore and Kate, three-story frame. Owner, Wm. Lageman and wife; architect, H. Gellfuss; contractor, F. Klatt; cost, \$6,200; sureties, C. Dix; \$2,000; signed, Dec. 8, 1888; filed, Dec. 18, 1888.

Payments, \$775, framed; \$775, roofed; \$775, partitions set; \$775, brown coated; \$775, inside finish on; \$775, completed; \$1,550, 35 days.

Front and Sacramento, alterations. Owner, Mrs. A. E. Luhrs; architect, Pissis & Moore; contractor, Cal. Art. Stone Co.; cost, \$1,450; signed, December 6th; filed, December 12th. Payments: completed, \$1,085; \$365, 35 days.

Front and Sacramento, alterations, etc. Owner, Mrs. A. E. Luhrs; architect, Pissis & Moore; contractor, Riley and Loane; cost, \$1,513.50; limit, 30 days; signed, December 6th; filed, December 10th. Payments: completed, \$1,100; \$413.50, 35 days.

Grove and Laguna, two-story frame. Owner, J. T. Fitzhenry; architect, M. J. Welsh; contractor, R. Parker; cost, \$3,300; signed, Jan. 2, 1889; filed, Jan. 5, 1889; limit, 80 days.

Payments, \$825, framed; \$825, brown coated; \$825, completed; \$825, 35 days.

Guerrero and 15th, two-story frame. Owner, Arthur P. and Chas. S. Booth; contractor, J. H. Thom Wohrden; cost, \$3,750; limit, 80 days; signed, Dec. 10, 1888; filed, Dec. 10, 1888.

Payments, \$950, roof boarded; \$900, sashes hung, etc.; \$950, painted; \$950, 35 days.

Golden Gate Avenue, between Lyon and Lott, to build complete. Owner, Steven D. Chincovich; architect, H. D. Mitchell; contractor, Thos. H. Corcoran; cost, \$2,800; sureties, C. Carpy and C. V. Hartmann; signed, Nov. 22, 1888; file 1, Dec. 26, 1888.

Payments, \$700, basement completed; \$700, enclosed and all frames set; \$700, inside completed; \$700, 35 days.

Howard, between 22d and 23d, additions. Cost, \$2,500.

Haight and Webster, three-story frame. Owner, Mrs. J. Twohey; architect, A. J. Barnett; contractor, McCann & Riddell; cost, \$6,500; sureties, Fabian Joost; signed, Jan. 2, 1889; filed, Jan. 5, 1889; limit, four months.

Payments, \$1,200, roof boards on; \$1,200, brown coated; \$1,200, outside finish on; \$1,275, completed; \$1,625, 35 days.

Harrison between 25th and 26th, one-story frame. Owner, C. Neilsen; architect, M. J. Welsh; contractor, J. T. O'Brien; cost, \$1,700; sureties, Daniel Kearny; H. J. McMurray; \$1,700; signed, December 4th, 1888; filed, December 12th, 1888; limit, 75 days.

Payments: roofed, \$400; brown coated, \$400; completed, \$400; \$500, 35 days.

Howard, No. 1626, alterations, additions, etc. Owner, J. Foeningsen; architects, John & Zimmerman; contractor, B. Pfarrar; cost, \$2,000; signed, Nov. 24, 1888; filed, Dec. 28, 1888; limit, Feb. 15, 1889.

Payments, \$500, enclosed; \$500, rough mortared; \$500, accepted; balance, 35 days.

Hayes, Fell, Scott and Devisadero streets, one single, one double house and one stable. Owner, John Cooney; architect, John J. Clark; contractor, John G. Adams; cost, \$11,248; sureties, S. H. Harmon and Behrend Joost; \$10,000; signed, Dec. 22, 1888; filed, Dec. 22, 1888; limit, 125 days.

Payments, \$2,500, stable completed and frame work done; \$2,500, brown coated; \$500, finished; completed, \$3,248.

Jackson and Broderick, frame dwelling. Owner, Geo. Wise; architect, Townsend & Wynken; contractor, M. C. Lynch; cost, \$3,012; signed, Dec. 24, 1888; filed, Dec. 24, 1888; limit, April 1, 1889.

Payments, \$753, roof boarded; \$753, brown mortared; \$753, inside trimmed; balance, 35 days.

Larkin, corner Filbert, two-story frame. Owner, Mrs. Labbee; contractors, J. R. Chapman & Sons; cost, \$4,000.

Larkin, near Greenwich, one-story frame. Owner, Mrs. M. Loveland; contractor, M. Shea; cost, \$2,500.

Lyon and Grove, building. Owner, Mary Whelan; architect, John J. Clark; contractor, D. Chisholm; cost, \$3,950; sureties, F. Joost; \$3,000; signed, Dec. 17, 1888; filed, Dec. 21, 1888; limit, 90 days.

Payments, \$850, framed; \$850, brown mortared; \$850, inside finish complete; \$1,400, 35 days.

Market and Guerrero, two-story frame. Owner, J. Harrington; contractor, J. Phinn; cost, \$5,000.

Mission, between 4th and 5th, brick building. Owner, F. W. Zehuss; architects, Pissis & Moore; contractor, E. R. Shain; cost, \$9,020; sureties, J. Y. Davis, H. Remillard; signed, Nov. 30, 1888; filed, Dec. 26, 1888; limit 70 days.

Payments, \$1,700, brickwork is ready for first floor joists; \$1,700, brick work is ready for third-floor joists; \$1,700, brick work is ready for roof timber; \$1,600, completed; \$2,320, 35 days.

Nineteenth and Santa Clara avenue, two-story dwelling. Owner, Adam Wagner; architect, Adam Wagner; contractor, August Disher; cost, \$2,400; sureties, Patrick Gorman and H. B. Schindler; signed, Dec. 4, 1888; filed, Dec. 10, 1888; limit, 90 days.

Payments, \$500, roofed; \$600, brown coated; \$700, completed; \$600, 35 days.

Noc and Ridley, one-story frame. Owner, Kelly; contractor, G. Dornig; cost, \$1,200.

New City Hall, additions, etc., to New City Hall. Work preparatory to erecting two new wings. Architect, A. Laver; contractor, Antonelli; cost, \$46,000.

Octavia, near Vallejo, four frame buildings. Owner and builder, W. P. Lewis. Total cost, \$25,000.

Oak and Clayton street, one-story frame. Owner, William J. Wisler; architect, John T. Kidd; contractor, Geo. R. Lang; cost, \$2,650; signed, Nov. 10, 1888; filed, Dec. 29, 1888; limit, 190 days.

Payments, \$993.50, partitions set and lathed; \$993.50, completed; \$663, 35 days.

Oak and Broderick, excavating, etc. Owner, Omnibus Cable Co.; architects, Percy and Hamilton; contractor, C. A. Warren; cost, \$9,025; sureties, Peter Crichton, R. Remillard; signed, Dec. 6, 1888; filed, Dec. 11, 1888; limit, 50 days.

Payments, 75 per cent as work progresses; balance 35 days.

Pierce, between Eddy and Ellis, improvements. Owner, J. D. O'Benck; cost, \$2,000.

Pine and Steiner, additions; cost, \$500.

Pacific and Steiner, two-story frame. Owner, John J. Wells; architect, Chas. I. Havens; contractor, John G. Adams; cost, \$9,100; sureties, E. N. Harman and E. Joost; signed, Dec. 1, 1888; filed, Dec. 17; limit, 100 days.

Payments, \$1,650, framed; \$1,650, brown coated; \$1,650, hard finished; \$1,650, completed; \$2,500, 35 days.

Page and Buchanan, building. Owner, P. B. Cornwell; architect, Clinton Day; contractor, R. P. Hurlbut; cost, \$13,900; signed, December 8th; filed, December 11th; limit, June 1, 1889.

Payments, ready to shingle, \$2,900; 1st mortar on, \$2,500; plastered, \$2,515; completed, \$2,500; \$3,485, 35 days.

Post and Kearny, iron work. Owner, James Stanton; architect, H. Geilfuss; contractor, P. H. Jackson & Co.; cost, \$2,070; signed, Dec. 8, 1888; filed, Jan. 2, 1889.

Payments, 75 per cent of value of work performed as work progresses; balance, 25 per cent, 35 days.

Post and Kearny, elevator. Owner, Roos Bros.; architect, Henry Geilfuss; contractor, A. J. McNeill & Co.; cost, \$2,500; limit, Feb. 20, 1889.

Payments, \$1,250, completed; \$1,250, 35 days.

Page and Octavia, two-story frame. Owner, Mary Humphrey; architect, John T. Kidd; contractors, Kincaid & Thompson; cost, \$4,735; signed, Nov. 21, 1888; filed, Dec. 29, 1888; limit, 110 days.

Payments, \$887, ready for roof boards; \$887, partitions set; \$440, brown coated; \$440, trimmed; \$457, completed; \$1,624, 35 days.

Sanchez and Hancock, one-story frame. Contractors, T. Elam, R. Miller; cost, \$2,195; limit, 75 days.

Payments, \$540, framed; \$540, brown coated; completed; \$575, 35 days.

Post and Kearny, brick, carpenter work and alterations. Owner, James Stanton; architect, Henry Geilfuss; contractor, Wm. Comary; cost, \$2,822; signed, Dec. 8, 1888; filed, Jan. 2, 1889.

Payments, 75 per cent of the estimated value of work performed as work progresses; balance, 25 per cent, to be paid, 35 days.

Shrader and Haight, two-story building. Owner, Andrew Weber; architects, John & Zimmerman; contractor, Jacob Klein; cost, \$3,800; signed, Dec. 15, 1888; filed, Jan. 2, 1889; limit, April 15, 1889.

Payments, \$500, framed; \$800, partitions set; \$800, outside finish on; \$700, accepted; \$1,000, 35 days.

Sutter, No. 919 (in rear) two-story frame. Owner, Laurence Koebelin; contractor, P. W. Kern; cost, \$3,240; sureties, F. Joost & O. Warderell; signed, Jan. 2, 1889; filed, Jan. 4, 1889; limit, 90 days.

Payments, \$800, roofed; \$800, brown coated; \$800, ready to paint; \$840, 35 days.

St. John and 13th, one-story frame. Owner, Dennis O'Leary; architect, James H. Humphrey; contractor, T. R. Bassett; cost, \$1,125; sureties, Thos. Learned; cost, limit, March 1, 1889.

Payments, \$281.25, enclosed; \$281.25, brown coated; \$281.25, completed; \$281.25, 35 days.

Sutter, between Powell and Mason, Art. stone carriage way. Owner, Abby M. Parrott; architects, Pissis & Moore; contractor, Geo. Goodman; cost, \$1,991; signed, Dec. 12, 1888; filed, Dec. 20, 1888; limit, 30 days.

Payments, \$691, work half done; \$800, completed; \$500, 35 days.

Sutter and Lyon, two-story frame. Owner, Uriah Wallace; architect, S. Hatfield; contractor, A. A. Willis; cost, \$2,740; sureties, B. Joost; signed, December 7th, 1888; filed, December 12th, 1888; limit, 90 days.

Payments, roofed, \$600; brown coated, \$485; plastered, \$485; completed, \$485; \$685, 35 days.

Sutter and Powell, raise and move. Owner, Thos. D. Dennigan; architect, R. H. Daley; contractor, Wm. T. Comary; cost, \$14,574; signed, December 11th; filed, December 12th; limit, May 1st, 1889.

Payments, moved, \$500; graded, \$800; brick work half done, \$1,300; brick work done, \$1,400; framed, \$2,476; brown coated, \$2,476; white coated, \$989; completed, \$989; \$3,644, 36 days.

Second and Folsom, brick building. Owner, Boyd & Davis; architect, J. M. Curtis; contractor, Chas. C. Terrill; cost, \$67,000; sureties, B. Joost and J. Kennedy, \$25,000; signed, December 10th; filed, December 11th.

Payments, 75 per cent as work progresses; balance, 35 days.

Sanchez and Hancock, one-story frame. Owner, R. Miller; contractor, R. Elam; cost, \$2,200.

Seventeenth, near Noc, one-story frame. Owner, G. Weber; cost, \$2,000.

Twenty-Fourth and Shotwell, frame building. Owner, Val. Meinberger; architect, S. Hatfield; contractor, Thos. A. Moar; cost, \$4,050; signed, Dec. 23, 1888; filed, Dec. 23, 1888; limit, 110 days.

Payments, \$800.50, roof boarded; \$745, brown coated; \$745, outside finished, except lower story; \$745, completed; \$1,012.50, 35 days.

Union, between Steiner and Pierce, one-story building. Owner, C. H. Waterman; architect, Wm. Mooser; contractor, Geo. H. Walker; cost, \$2,650; signed, Dec. 17, 1888; filed, Dec. 19th; limit, March 1, 1889.

Payments, \$850, framed; \$850, brown coated; \$950, completed.

Van Ness, corner Clay, additions to St. Luke's church; architects, Curlett & Cuthbertson; cost, \$1,500.

Vallejo, near Van Ness, two-story frame. Owner, J. McDonald; architect, J. Chadwick; contractor, T. Evans; cost, \$5,000.

Vallejo, near Union, two-story frame. Owner and builder, Con. Murphy; cost, \$6,000.

Vallejo, near Van Ness, additional story. Owner, H. Evans; contractor, Chadwick; cost, \$3,000.

Van Ness Avenue and Pacific street, alterations. Owner, Amelia W. Coffin; architect, John T. Kidd; contractor, Bateman & Bros.; cost, \$5,515; sureties, A. D. Moore and H. C. Smith; signed, Dec. 20, 1888; filed, Jan. 5, 1889; limit, 125 days.

Payments, \$1,000, framed; \$1,025, sashes in and glazed; \$1,000, white coated; \$1,100, ready to paint; \$1,390, 35 days.

Webster and Waller, two-story frame. Owner, James Williamson; architect, A. J. Barnett; contractor, Kincaid & Thompson; cost, \$4,280; sureties, Frank P. Latson; \$2,500; signed, Dec. 14, 1888; filed, Dec. 17, 1888; limit, 75 days.

Payments, \$900, roof boards on; \$1,100, brown coated; \$1,214, completed; \$1,075, 35 days.

Waller and Steiner, four flats. Owner, Alex. Thain, et al; architects, Donovan & Williams; contractor, Jos. Donovan, et al; cost, \$5,855; signed, Dec. 14, 1888; filed, Jan. 2, 1889; limit, April 30, 1889.

Payments, \$1,200, framed; \$1,200, brown mortar on; \$1,200, standing finish on; \$1,200, completed; \$1,050, 35 days.

Washington, between Laguna and Buchanan, two-story dwelling. Owner, F. Du B. Green; architect, J. C. Mathews & Son; contractors, Knight & Littlefield; cost, \$5,337; signed, Nov. 20, 1888; filed, Dec. 29, 1888; limit, April 15, 1889.

Payments, 75 per cent of value of work performed and material used, to be paid from time to time as work progresses; balance, 25 per cent, 35 days after completion.

The * California * Architect * and * Building * News

VOLUME 10.

ENTERED AT POST-OFFICE SAN FRANCISCO, AS SECOND-CLASS MAIL MATTER. ESTABLISHED JANUARY, 1879.

NUMBER 2.

NOW IN ITS TENTH YEAR!

NEW HEADQUARTERS.

THE California Architect and Building News.

ESTABLISHED JANUARY, 1879.

Office, 408 California St., San Francisco.

(Next to the Bank of California.)

Official Organ of the San Francisco Chapter American Institute of Architects.

TERMS PER ANNUM, - - - - \$2.00 IN ADVANCE

Published on the Fifteenth of each Month.

When money is sent for subscriptions, the receipt of a copy of this Journal is an acknowledgment that it has been received. Unless requested we do not send receipts.

OUR ADVERTISING RATES.

SPACE.	1 MONTH.	3 MONTHS.	6 MONTHS.	12 MONTHS.
1 Inch,	\$ 1 50	\$ 4 00	\$ 7 50	\$ 13 00
3 Inch,	4 00	10 00	18 00	35 00
6 Inch,	7 50	18 00	32 00	60 00
1 Column,	12 50	35 00	65 00	125 00
1/2 Page,	11 00	30 00	57 50	105 00
1/4 Page,	20 00	57 50	105 00	200 00
1/8 Page,	30 00	50 00	150 00	275 00
1 Page,	40 00	110 00	200 00	350 00

Full-page advertisements inserted among reading matter, fifty per cent extra on above rates. Specially attractive advertisements, without extra cost, will be set up in the finest style where the advertiser furnishes cuts.

CASH MUST ACCOMPANY ALL ORDERS FOR ADS.

ADVERTISEMENTS ALONE INSERTED THAT REFER TO MATERIALS USED IN THE CONSTRUCTION AND FURNISHING OF HOUSES, AND TO MATTERS AND TRADES BELONGING TO THE BUILDING INTEREST.

NO OTHERS RECEIVED.

PARTICULAR NOTICE.—Each advertising page contains three columns, each of which is about two and a half inches wide. One inch means one inch in depth by two and a half inches in width.

Spaces on Cover and on page preceding reading matter are subject to special rates.

SAN FRANCISCO, FEB. 15, 1889.

CALIFORNIA ARCHITECT PUBLISHING COMPANY NOW HAS CONTROL OF THIS JOURNAL.

Articles of Incorporation of the above named Company have been received from the Secretary of State, and as soon as the By-Laws are prepared permanent officers will be elected. Following are the Trustees named in the Incorporation papers to hold office for the first year:

ALBERT PISSIS,	W. P. MOORE,
H. T. BESTOR,	W. G. MATTHEWS,
OLIVER EVERETT,	R. H. WHITE,
W. J. CUTHBERTSON.	

Mr. Seth Babson has been intrusted with the duty of preparing the By-Laws.

Permanent rooms have been engaged at No. 408 California street, next to the Bank of California.

Direct all communications in future to the above address, as all business connected with the journal will be there transacted.

Secretary's office hours, 9 A. M. to 4 P. M.

FOR the first time in the history of the State, those representing the Architectural Profession can lay the claim of possessing one of the neatest meeting rooms in the country. On the evening of February 1st the initial gathering was held. Many of those present were in the rooms for the first time, and uttered words of praise at the taste displayed in the selection of the carpets, chandeliers, chairs, etc. The main office is 16x36 feet in size, amply provided with light, and being on the sunny side of the street is warm enough without the necessity of keeping up a fire all day. In the rear of the main office are two large rooms, having conveniences of sun, light and water. A better location could not have been selected. All Architects are invited to call and examine our rooms. Those from the country are cordially welcome.

S. F. CHAPTER, A. I. A.

The following members were present: G. H. Sanders, W. P. Moore, O. Everett, H. T. Bestor, J. E. Wolfe, Seth Babson, R. H. Daley, John Wright, W. H. Cuthbertson, J. M. Curtis, C. O. Laver, C. H. Hasty, J. Gash, G. H. Wolfe.

President G. H. Sanders occupied the Chair. Report was received from the Committee appointed to confer with a like Committee from the Builders' Association, to prepare a proper form for a Memorandum of Contract to be filed in Recorder's office.

The Chairman, Seth Babson, presented proof copies of the form as prepared, to each member of the Chapter. Following is the document in full:

Memorandum of a Contract.

Made in writing, and executed and subscribed by the parties, at the City and County of San Francisco, the day of 18.....

FIRST.—The names of all the parties to said contract are who is designated therein as the Owner, and who is designated therein as the Contractor.

SECOND.—The property to be affected by said contract is situated in the City and County of San Francisco, State of California and is particularly described as follows, to wit: Commencing at a point on the line of street, distant feet from the of street, thence to the point of commencement.

THIRD.—The general character of the work to be done under said contract is as follows, to wit: The said as Contractor, agrees with the said as Owner, to furnish the necessary labor and materials, including tools, implements and appliances required in the execution of

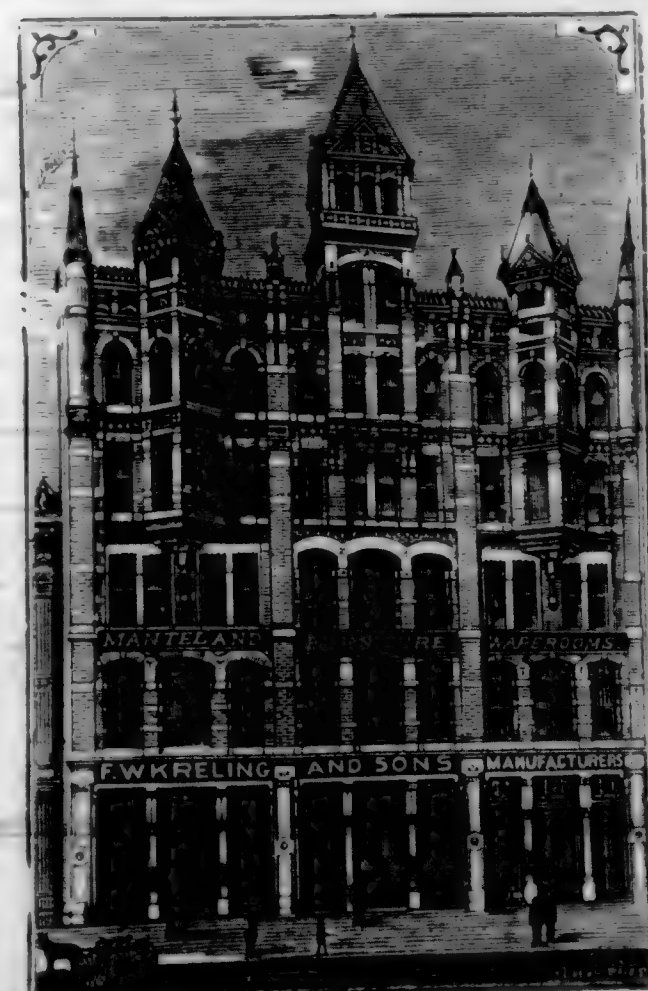
in a workmanlike manner, in conformity with the plans, drawings and specifications for the same, made by the authorized architect employed by the owner, and which are signed by the parties hereto, and are to be kept and remain in the office of said architect, subject to the inspection of the parties hereto and others concerned in said erection.

FOURTH.—The total amount to be paid under said contract is the sum of Dollars, in U. S. Gold Coin, which sum is to be paid to the said contractor by the said owner in partial payments.

FIFTH.—The amounts of all partial payments, together with the times when such payments shall be due and payable, are as follows, to wit:

After a discussion, indulged in by all present, the form was unanimously endorsed by the Chapter.

A Committee of two—Wright and Daley—were appointed by the Chapter, to confer with the California Architectural Publishing Co. for the purpose of engaging the offices under control of the latter, as a permanent meeting room for the Chapter.



F. W. KRELING & SONS,
Manufacturers of Elegant
PARLOR and CHAMBER SETS,
DINING-ROOM, BANK AND OFFICE FURNITURE,
WOOD MANTELS AND INTERIORS,
Rich Upholstery, Draperies, Bedding, Etc.
SOLE OWNERS OF THE
SQUARE & OCTAGON TURNING MACHINES,
For Balusters, Newel Posts, Etc., Etc.,
WAREHOUSES: **534 and 538 MARKET STREET.**
Telephone 3192.
FACTORY: **319-329 GUERRERO STREET.**
Telephone 6113.
SAN FRANCISCO, CAL.



SKETCH OF AN OLD HOME.

Draughtsmen and Students.

Please Notice—It is our intention, in the near future, to issue an edition of the CALIFORNIA ARCHITECT solely in the interests of draughtsmen and students. All the illustrations will be prepared by them and as far as possible all articles or communications will have their endorsement.

To do so, however, the parties mentioned should at once take hold of the matter in earnest and endeavor to show their friends and the public generally, the great improvement they have made in their studies.

Increasing Building Activities in the City.

NO more conclusive and satisfactory proof as to the growth and prosperity of San Francisco, and the increase of its population could be desired than the fact that during each successive year of the present decade, thousands of houses for private residences and tenement purposes have been erected, and still the demand keeps pace with the supply. Within the last five years, especially, the building activities have been great, and at times many entertained and express the idea that "the thing is being overdone," and some even hesitate to improve their real estate, fearing a collapse, or the possession of houses without tenants. But the sequel proves that all such prognostication and fears were unsubstantially based, and that instead of a surplus of vacant houses, there are but few unoccupied, and those seeking desirable residences have to hunt long and diligently to find them—all of which goes to prove that San Francisco is boldly marching on in the race for city greatness, with every probability that ere the present century ends, her registers in every line of prosperity will be enviable in the highest degree; and with the limitations and disadvantages of isolation from the vast eastern centers of commercial and business life considered, her standing among the great and progressive cities of the continent will bear honorable comparison with but very few of those specially favored as to location and surroundings leading.

ARCHITECTS GENERALLY BUSY.

In further proof of all this, and that the present equals any period in the past in brilliant prospects, is the fact that the architects in San Francisco, with scarce an exception, are full of work, and every draughtsman worthy the name employed, so that the architectural forces in the city are at their best, preparing plans for early commencement, which also means that contractors and mechanics are destined to have their hands full at an early day, with the further probability that during the season the supply of skilled labor will be inadequate to the demand, and that the rates of wages will rule high, particularly in special departments. In this respect San Francisco is at a disadvantage, as compared with cities beyond the Rocky Mountains, where exigencies in the labor mart can easily be met by supplies from neighboring cities of a few hours' or days' ride by

cars, at slight cost. But the barrier of two or three thousand miles' distance, and the earnings of a half month for fares across the continent, is not so easily overcome, and is likely, as it has done in seasons past, to render it impossible for contractors to fill up with qualified help. And this difficulty is more formidable, from the further fact that in Oakland, San Jose, Los Angeles, and the cities and towns of the state, generally, a similar degree of building activities prevail, so that from no quarter can increase of the working forces be expected.

LARGE BUILDINGS.

Present prospects are by no means confined to residence property, but extend to brick and stone structures, many of them of pretentious magnitude, and all of them requiring a large force of workmen.

In addition to those commenced, the *Chronicle* building, perhaps leading in cost and number of stories, the Bank building, corner of Bush and Sansome streets, the several fine structures under way on Market street, and in other parts of the city, there are a number of others contemplated, for which plans are made, or being made, which will require many millions of brick, and thousands of tons of stone and iron in their construction.

All this means more than employment for those who perform the work of construction, as the materials used in building will require the labor of other thousands to produce and manufacture into desired forms and shapes, and the employment of large capital in the various productions.

The iron from its ores, the wood from the trees of the forests, the bricks from the clay, the rock from its everlasting bed, the paint, glass, tin, lime, cement, the silver, trap, nickel and all other classes of material require busy hands to make them ready for building purposes. So that activity in building operations means prosperity in a thousand directions, and general prosperity in the counties in which they exist, following the direct line of involvements, and beyond these is the other essential fact, that by the successes and prosperities in life, the money with which to build is acquired; and the fact that so many building improvements are in progress or contemplated, is evidence that the people of this state, in a large measure, have been and are successful in their financial operations, the proof of which is clearly set up by the extensive activities prevailing throughout this city and state.

But, it may be asked, is this condition of things likely to continue? From all the evidences in sight, and all reasonable deductions, there can be but one answer—yes. With the steady increase in population that has been going on, and the fact that the results noticed are altogether the outgrowth of a solid, regular business condition of things, unaffected to any extent by stock or other bubble inflations, gives reasonable assurance that there is and will be permanency in the advances this city and state is now making, and that future years will prove the most sanguine expectations of the present well founded.

Thanks Will be Extended for a Prompt Settlement of Accounts.

All our patrons who are in arrears will kindly oblige by immediately forwarding the amount due. We promise the ARCHITECT will far surpass its previous appearance. In order to continue improvements, the subscriptions due should be immediately paid. Remember change of offices to 408 California street, next to Bank of California.

Architects are complaining of scarcity of good draughtsmen. When the boom broke in Los Angeles and vicinity, scores of draughtsmen were thrown out of employment. They naturally came to this city. Those who really possessed the proper qualifications secured situations. But many were totally incompetent and have wandered from place to place, condemning in the meanwhile, the inability of our architects to recognize their superior talent. Time has thinned out of the ranks of these would be architectural foremen, they, for the greater part, having taken up some other occupation. Competent draughtsmen can generally find employment at good wages, and only those thoroughly qualified should think of making a home in this city.

To drive rats and mice away from a building, make a strong solution of oxalic acid and soak newspapers in it until they are in a pulpy condition; cram this into the holes through which the rats or mice pass, and they will get such sore mouths and feet that they will give the holes a wide berth.



PISSIS & MOORE, ARCHITECTS

A Supreme Court Decision of Great Interest to Contractors.

IN BANK.
[Filed December 8, 1888.]
RENTON, HOLMES & Co. vs. No. 11,344.

GEORGE MONNIER.

It appears from the record in this case that on the 14th day of April, 1882, the defendant entered into a written contract with one Valentine H. Harding, to construct for him a building on Howard street, in the city of San Francisco, for the sum of \$3,957, to be paid in installments as the work progressed, and the first payment of \$1,000 to be made when the frame was up to the second-story floor, including the second-story floor joists and frame of sidewalk.

It was provided that the building should be constructed "according and conformable to the drawings and specifications made by William Mooser, architect," and "in a good workmanlike and substantial manner, to the satisfaction and under the direction of the said William Mooser, the duly authorized architect, to be testified by a writing or certificate" under his hand.

The payments were to be made by defendant to Harding, his executors, administrators, or assigns, "provided that in each case a certificate be obtained and signed by the said William Mooser, architect, that said works have been done in the most substantial and faithful workmanlike manner, to the approval and full satisfaction of said architect."

On the 15th of April, 1882, Harding assigned to the plaintiffs the several payments to be made to him under the contract, by a written assignment which directed the architect to deliver to plaintiffs the certificates, and directed the defendant to pay to plaintiffs the several payments as they should fall due.

The contractor commenced his work and the first payment of \$1,000 became due on the 29th of April, 1882. On that day the architect gave his certificate to Harding, and the defendant paid him the \$1,000, and subsequently refused to again pay the money to the plaintiffs.

The plaintiffs claimed that defendant had notice of the assignment and wrongfully paid the \$1,000 to Harding, and they brought this action to recover the same.

The case was tried by a jury and the verdict and judgment were in favor of defendant. The plaintiffs moved for a new trial, which was denied, and then appealed from the judgment and order.

The principal question is: Did the defendant have notice of the assignment before he paid the money? If he did, the plaintiffs were entitled to recover, and if not, they could not maintain their action.

It was proved that notice of the assignment was given to the architect on or about the 21st of April, and it is claimed for the appellants that this was constructive notice to the defendant and conclusively settled the question. Whether this claim is well founded or not depends upon the extent and character of the architect's agency. The rule is well settled "that notice to an agent of facts arising from or connected with the subject matter of the agency, is constructive notice to the principal, when the notice comes to the agent while he is concerned for the principal and in the course of the very transaction." (Bierce vs. Red Bluff Hotel Co., 31 Cal. 165.) But notice to an agent of facts not connected with the subject matter of his agency is not notice to the principal, unless actually communicated to him.

Agencies are general or special, and an agent has such authority as the principal, actually or ostensibly, confers upon him. (Civil Code, Sec. 2,315.) In this case it is not claimed that the architect had any other authority than that expressly conferred upon him by the written contract for the construction of the building. That authority was: First—To see that the building was constructed according to the drawings and specifications in a good, workmanlike and substantial manner, and to testify in writing to that effect. Second—As the work progressed and payments became due, to sign and issue certificates that the work had been done in the most substantial and faithful workmanlike manner, to his approval and full satisfaction. Third—To decide any dispute which might arise respecting the true construction or meaning of the drawings or specifications.

The foregoing are all the powers delegated to the architect, and as to these powers the plaintiffs were fully advised.

The defendant reserved to himself the duty of making the payments, and it was a matter that in no way concerned the architect when or to whom the payments should be made. This being so, we are unable to see how it can be said that the assignment was a fact "arising from or connected with the subject matter of the agency," and in our opinion the instruction, requested by the defendant upon this subject, stated the law correctly and was properly given to the jury.

It was claimed by the plaintiffs at the trial that defendant had actual notice of the assignment before he paid the money, and in support of this claim one Bibb was called as a witness, and testified that he was the agent of plaintiffs, and that on the 25th of April he went to the defendant's saloon and exhibited and read to him the written assignment. On the other hand, it was claimed by defendant that no notice of the assignment was given or attempted to be given to him until the first day of May; and in support of this claim defendant was called as a witness, and testified that at the time he paid the money to Harding, neither Bibb nor any one else had informed him that the payments had been assigned, and that Bibb did not call upon him and exhibit the written assignment until the first day of May; that when Bibb called he exhibited a paper and asked witness to sign it, and he declined to do so; that he was a Frenchman and did not read or write English or understand what the paper meant, and so informed Bibb at the time; that he asked Bibb to come back when his clerk was in, and Bibb then went away.

At the conclusion of the testimony the Court, at the request of the plaintiffs, instructed the jury that if the defendant had notice of the

assignment to plaintiffs before or at the time he paid the \$1,000 to Harding, then the verdict should be in their favor; and that a verbal notice of the assignment was all the law required. Afterwards an instruction reading as follows was given for defendant: "The defendant in this action is not liable to plaintiffs, if you find from the evidence that, at the time he paid the said sum of \$1,000, involved in this action, to Valentine H. Harding, he had no notice that said Harding had assigned such payment to the plaintiffs. And notice given, in order to be effectual should be sufficient, precise and complete enough to put the defendant fully on his guard as to the fact of such assignment, and he should have understood it."

It is added for appellants that the last part of this instruction was misleading and erroneous, because it, in effect, told the jury that notice of the assignment would be ineffectual unless the defendant understood it, and it was sufficient to put him fully on his guard, thereby withdrawing from the jury the full consideration of the evidence upon the issues on which they were to pass. And in support of this position counsel cite Perkins vs. Eckert (55 Cal., 404.)

But it should be observed that each party to a lawsuit is entitled to have the law given to the jury, which is applicable to this theory of the case, and the testimony of his own witnesses. The Court acted upon this rule, and gave to the jury all of the instructions asked by the plaintiffs. The defendant's theory was that no notice of the assignment was given or attempted to be given to him until after he paid the money to Harding, and there being a sharp conflict of the evidence upon this question, that if notice was given it was ineffectual, because he did not understand it or know what it meant. Now, whether notice was given or not, and if given, whether defendant understood it, and it was sufficient to put him on his guard, or in the language of the code, to put a prudent man upon inquiry (Civil Code, Sec. 10), were questions of fact for the jury, and the instruction was evidently given to meet the defendant's theory of the case. Possibly the part of the instruction complained of might have been more happily written; but the question is, was it applicable to the facts proved by defendant, and did it state correct propositions of law.

Suppose a similar notice should be given to one who neither reads, writes, speaks nor understands the English language, would the notice be effectual and an instruction like that given here be erroneous? Evidently not. And yet we fail to see how the fact that defendant understood and spoke the English language to a limited extent can make any difference. If he did not understand what was read or said to him by the plaintiff's agent, and so informed the agent at the time, then the latter should have left with him a copy of the assignment, or should have returned for further explanation when the defendant's clerk was in. The case of Perkins vs. Eckert, supra, is not in point. In that case the question was whether a bill of sale was an absolute one, or was given as security, and an instruction was given which, in effect, told the jury that if plaintiffs understood it to be taken as security, and the defendants did not so understand it, they must find it to be an absolute sale. The instruction was held by this Court to be erroneous because it "withdrew from the jury the full consideration of the evidence upon the issue on which they were to pass."

In our opinion, under all the circumstances shown, the instruction stated the law correctly and was properly given to the jury.

When C. S. Holmes, one of the plaintiffs, was upon the witness-stand, counsel for defendant asked him, "What was the object and purpose of this assignment to you?" The question was objected to on the ground that it was immaterial and irrelevant, and that the terms of a written instrument could not be varied by parol testimony. Counsel for defendant replied that they did not wish to vary the terms of the instrument, but to show all the facts and circumstances surrounding the transaction. The Court then overruled the objection, and the witness answered that the contractor was a stranger to him and that he had procured bondsmen for him and did not want the money to go into his hands; that the assignment was made to secure his firm against the bond and everything pertaining to the construction of the building. And he paid that his firm advanced to Harding \$165, before he received payment of the \$1,000, and that Harding repaid the money on the 2d of May. We see no error in the ruling. A contract may be explained by reference to the circumstances under which it was made (Civil Code, Sec. 1,647), and the testimony had some tendency to show that plaintiffs had such confidence in Harding that they may not have attempted to give notice of the assignment to defendant until the time named by him.

There is nothing in the next point made that the Court erred in permitting defendant's counsel to show that Harding borrowed money from the plaintiffs and repaid it. Holmes testified to the borrowing and repayment of the money without being asked to do so, and without objection from either side.

If it was error to admit in evidence the letter written by Holmes to Harding on the 16th of May, 1882, in reference to the disposition of all moneys which might come into plaintiffs' hands under the assignment, the error was cured by instruction No. 3, which was given to the jury at the request of the plaintiffs.

The last point made by appellants is that the Court erred in allowing counsel for defendant to read in evidence the deposition of Valentine H. Harding, because there was no sufficient showing that he was out of the jurisdiction of the Court. The showing that Harding was out of the State probably might have been made somewhat fuller and more conclusive, but we think it sufficient to admit his deposition.

After carefully going over the whole record we find nothing calling for a reversal of the judgment, and therefore advise that the judgment and order denying a new trial be affirmed.

We concur:
FOOTE, C.
HAYNE, C.

BY THE COURT.

For the reasons given in the foregoing opinion the judgment and order denying a new trial are affirmed.

BELCHER, C. C.



THE second design in the series of "Gem Cottages," which the accompanying cut illustrates, is, although somewhat larger, similar in appearance to that of number one. The general proportions are retained that it may conform to the same conditions and also in the line of economy; as a departure from the square or oblong to that of an irregular outline necessitates the forming of hips and valleys, hence a proportionate increase in cost. Cottage No. 2 has all the requisites necessary to a complete moderate-priced home, including bath-room, grate in parlor, etc.

The principal entrance is into a hall of liberal size, from which access can be had into four of the six rooms comprising the main compartments and supplied with an abundance of light and ventilation by a large transom over the door, whose upper panel will be glazed with some neat pattern of figured frosted glass.

The parlor has ample room proportionate to a dwelling of this character and provided with ample light through the triplet windows, the smaller ones being designed with a transom over to be glazed in ornamented glass. The mantel may be of slate in imitation of marble, or if extreme economy be studied some tasteful pattern in cast iron could be substituted.

The bath-room, although somewhat unusually located, need be in no way objectional in that regard if the plumbing is of good quality and the room rightly kept, and both should have proper attention in those matters under all circumstances. This room should be wainscotted five feet high, finishing with a neat cap.

The chambers are both well provided with light and ventilation, each having a closet making them desirable rooms.

The dining-room is of liberal size with ample light furnished by the mullion window and can be, if so desired, provided with a china closet by substituting the cupboard in kitchen, where shown with doors opening on a counter shelf in dining-room three feet from floor, under which drawers for linen can be arranged.

The kitchen is a desirable room with door at rear leading to back yard. The sink will rest on turned legs, leaving the space beneath open, which will allow the same to be kept clean and wholesome, rather than being cased up as usual, affording a receptacle for filth as is too often the case.

The pantry should be provided with not less than five rows of shelves, under which can be arranged flour chests, cupboards for kitchen utensils, etc. In the matter of construction the building should rest on brick piers extending into the ground below frost. The floors should be doubled, the first being of surfaced material over which lay one of matched soft pine, blind nailed, excepting in kitchen which should be of thoroughly seasoned Oregon pine, dressed smooth after laying and kept well oiled.

In a cold climate to assure warmth, would suggest a layer of asbestos paper between the floors; however, in no case the common building paper, as the leaking of water through the cracks produces a continuous damp floor and soon mould and rot away.

The kitchen should be wainscotted three feet high and over sink five feet to protect the plaster.

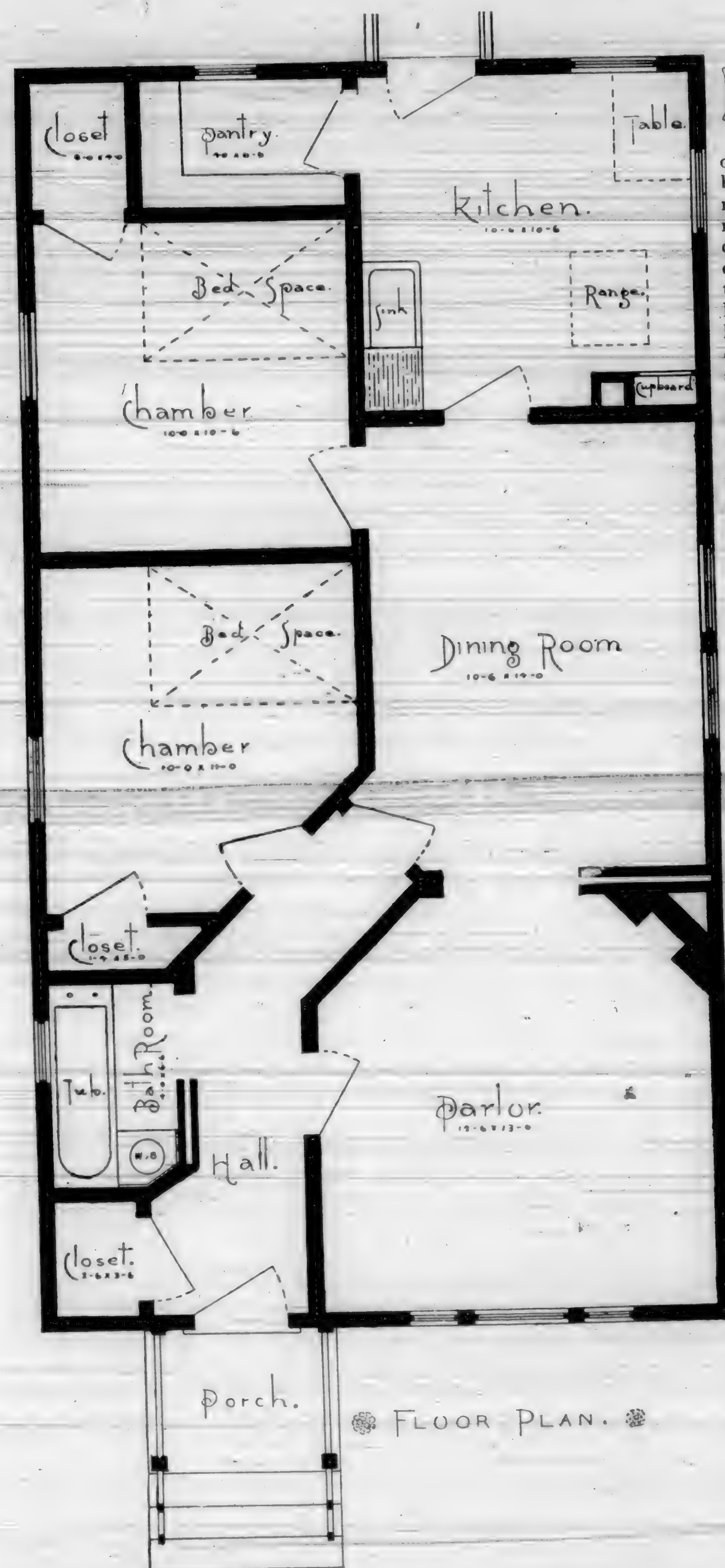
The brick work for kitchen chimney should start thirty inches below ceiling line, resting on a solid bearing furnished by the uprights forming the side of cupboard. The brick work for mantel should start at a point below frost, resting on a footing of ample size, as suggested by the nature of the soil, and terminate four feet above floor line, the breast being formed by furring with studding to ceiling, care being taken to allow a space of at least two inches between the wood work and brick to guard against the possibility of fire. The interior should be finished in some of the modern styles of pilaster finish with a neat pattern of corner and plinth blocks. Transoms should be provided over all chamber, hall and outside doors to insure good ventilation, excepting however, the small sliding door into the bath room. Willer's sliding blinds are a good substitute for the common inside blind and much to be preferred; however, the English Venetian blind in the writer's opinion is still better.

The exterior, including roof, should be painted with at least two coats best lead and oil in two colors using only first-class material, as it is by far the cheapest. In reference to the interior would recommend a natural wood finish in hard oil, as it is the most durable, easily cleaned and no more expensive than a good job of painting. The cottage can be completed in a modern manner, using only the best materials and workmanship, at present prices in San Francisco, for a sum not to exceed \$1800.

A. W. PUTNAM.

Dranghtsmen and Students

Should bear in mind that we will soon issue an edition solely in their interests. Inform us at once if it is your intention to contribute either an article or a sketch.

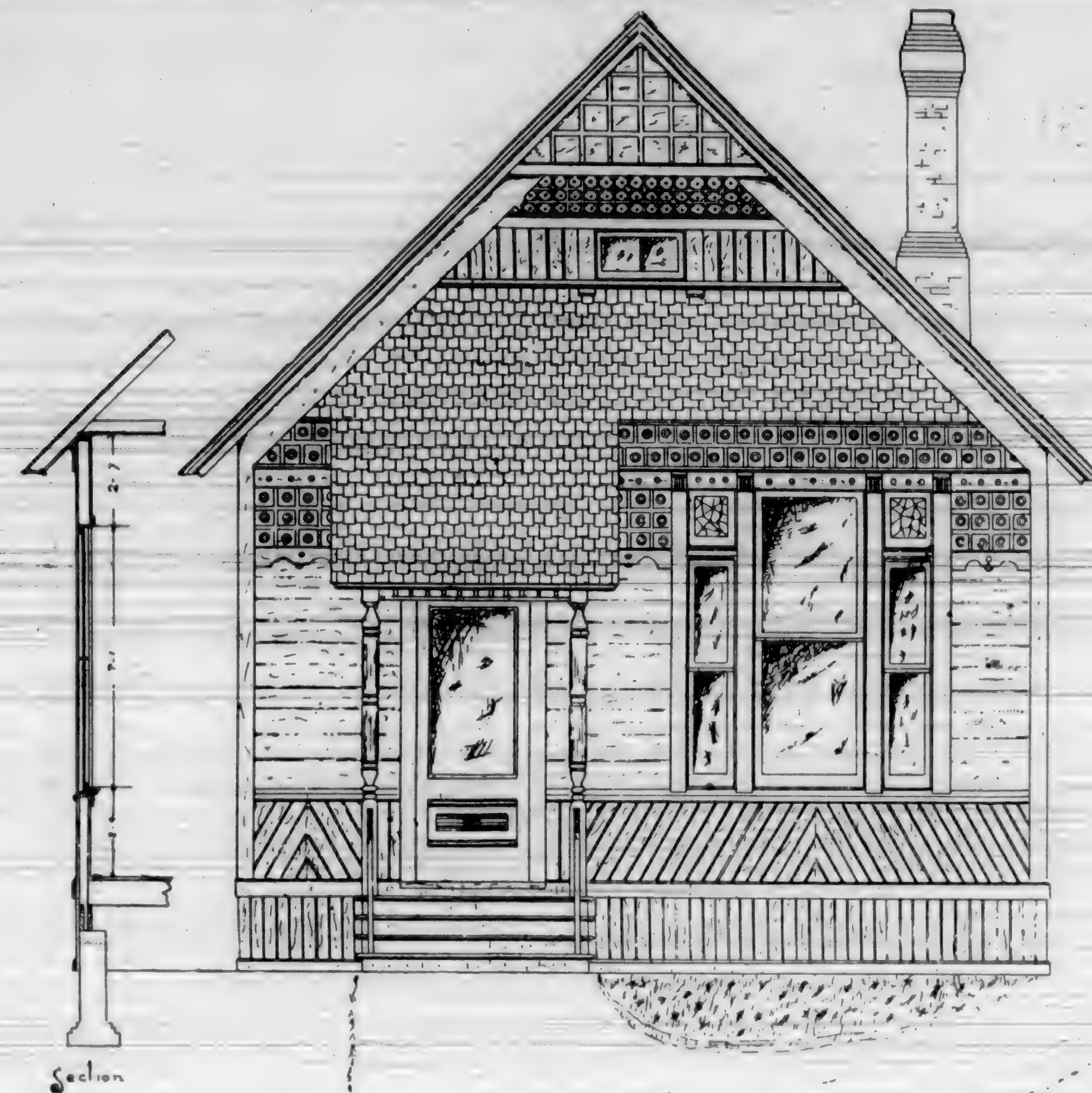


EXPENSES OF ARCHITECTS.

FROM an article entitled "Are we Just to Our Architects," from the January *Century*, we quote as follows: "A doctor may manage a very large practice with a 'plant' consisting of a small office, a brougham, a single assistant and a boy to open his door. A lawyer's outlay need not be much greater. But what are an architect's needs? It may seem very simple work to the public merely to design a building on paper, and 'merely' to supervise its erection by contractors who 'do all the real work.' But to design a building means to prepare, not only the little sketches and plans a client sees, but very many large scale drawings, requiring much time for their elaboration, and not only artistic reflection, but long and complicated mathematical and pecuniary calculations too. And to supervise construction means frequent and extended visits from the architect or some competent assistant. All this implies very large and well-lighted and very expensive offices, a numerous corps of assistants, some of whom must be men of great skill and long experience, and constant journeys, often to very distant spots. Every one knows the immense commissions Mr. Richardson received; but who remembers that he had more than a score of artists in his employ and took monthly journeys to Washington and Chicago? All architects must bear such burdens, but they fall much more heavily upon the American than the foreign practitioner. Rents are enormously high with us; the intense competition of Europe sends an established architect pupils who are willing to pay large premiums, while here salaries must be given from the start and must rapidly increase if good men are to be retained; and there is of course no comparison between the cost of journeys in France or England and those in our wide-spread territory. There are other facts which make an artist's task much harder here than in Europe and which tend to perpetuate the public feeling of distrust, but we merely wish at this moment to lay stress upon the fact that even the largest commissions on the most expensive class of buildings bring him a reward so disproportionate to that secured by an equal amount and quality of labor in other professions, that he may rank himself with the clergymen as among the least well-paid of our professional men."

A NEW PADLOCK.—Among the novelties put on the English market is a new padlock called the swivel, the object of which is to simplify the operation of locking. The swivel is reversible, so that the shackle can be opened from either side. A further advantage in the new lock is that owing to there being no open space by the shackle, moisture is effectually excluded. Another English manufacturer is putting up sash cord in boxes, which have an opening in front, through which the end of the cord passes. This system is referred to as largely adopted by other English manufacturers, and is said to be far preferable to the old method of doing up goods in hanks.

Probably the oldest timber in the world which has been subjected to the use of man is that found in the ancient temple of Egypt, in connection with some work which is known to be at least 4,000 years old. This, the only wood used in the construction of the temple is in the form of ties, holding the end of one stone to another. When two blocks were laid in place an excavation about an inch deep was made in each block, in which a tie shaped like an hour glass was driven, it is therefore, very difficult to force any stone from its position. The ties appear to have been of the timarisk or Shittim wood, of which the Ark was constructed.



FRONT ELEVATION.

The Relationship of Architecture to the Arts and Crafts.

THE arts and crafts in this country suffer, at the moment, from over-much professional jurisdiction; the public taste is being formed to accept the productions of a few self-constituted "masters" as the highest efforts of high art; the craftsman as a rule is well paid; and a fair day's skillful work for a fair day's adequate pay is what should be, without any question whatever, demanded and insisted upon.

As regards these professors, every credit must be given them for their honest endeavors in art education, but we absolutely deny that either an artist or a craftsman can be turned out of their schools fitted for the work at the office, the studio, or the building. The requisite knowledge for the practice of the Arts and Crafts must be obtained after leaving the schools.

As regards the decorative arts, some of these professors appear to think that it is only necessary for them and a chosen few to meet in a room and declare themselves to be "Masters in the Arts," and thenceforth they are Masters. In visiting their work I am not to criticize, I am to fall down and worship the golden image which they have set up. Who is Mr. Professor, that he claims an exclusive right in forming opinions on decorations and drawings? He may be, from his own point of view, a very great and distinguished artist—we will assume that he is—all we can say is that we are ignorant of the fact; and he may rest assured that if he were to write a thousand volumes and paint a thousand advertisements proclaiming himself a master whose opinions on art are not to be questioned, the effect upon educated men would be nil. When such a one had seen, analyzed, and thought over his works, he should say that they were good, bad, or indifferent, according to the lights of himself, not of those of Mr. Professor. Architects do not profess to be able to execute terra cottas, or to paint ceilings and vases; they do

not claim the power to paint an easel picture better than a professional artist, nor to model a figure better than a sculptor; but they do claim the right to form their own opinions on questions relating to the fine arts without the benefit of a consultation with any decorative artist. To be sure the architect will find quite enough to do as regards the building proper, and the consideration and control of the high art accessories, without attempting himself to absolutely draw with his own hand, color with his own brush, and model with his own fingers those high art accessories. The architect's position is to design his building with beauty and build with truth—he is to lay down and appportion the parts to receive the designs of the sculptor, the painter, and the decorator—he is to review those designs, and to be able to pronounce upon them with wisdom and ability—he is to be, as it were, in consultation at all times with those artists, so as to produce that grand whole, that complete conception which is in his mind, and in his alone, but which is quite impossible that he can produce without the aid of specialists he is bound to consult and to work with. There is not, or ever will be, so much spare time left to the real architect that he can afford to fritter it away in silly drawings for silly women—let him leave table covers and curtains to those who know a great deal more about them and the proper designing of them; don't let us have too much of this taking Village Smith by the hand, and telling him that he is another Huntingdon Shaw, only he doesn't know it. Don't let us have too many grotesques and label them angels; but let us, on the contrary, while supporting in every way original talent and real art, crush this everlasting and sickening cry of—"We are a few superior artists; we are far, far removed from the common herd, and, although you may not think so, we really are great masters; for have we not ourselves declared it?"—WILLIAM WOODWARD, A. R. I. B. A.

Cast iron weighs per cubic inch, 2603 pounds; bers, one-fourth of a pound to the cubic inch.



Inadequency of Architects Compensation.

THE inadequency of the compensation received by architects for making plans, specifications, etc., for dwelling houses, and supervising the work, furnishes a fruitful theme for consideration. People do not, as a general thing, appreciate the amount of labor required in the preparation and completion of a set of plans, specifications, details, etc., for an ordinary dwelling house. The reason of this is found in the fact that most people have little or no means of knowing the inside history of the preliminary work which has to be done and the time which has to be spent before the real work of preparing plans can be fairly begun. Even those who build are usually so absorbed in the interest and pleasure of building that they do not stop to consider how much they are receiving for the small sum usually charged for the architect's services.

Perhaps, therefore, a simple outline sketch, showing the manner in which a dwelling house, costing anywhere from five to ten thousand dollars, is generally evolved, from the first step to its completion and acceptance by the owner, may assist the layman to understand what it actually cost the architect in time and labor to prepare and supervise such a set of plans, specifications, etc.

This picture will be drawn from the architect's point of view, and will therefore present a side little known to the public.

The client enters the office of the architect, full to overflowing of that all-absorbing topic—housebuilding, and, after the brief civilities of the day are over, informs him that he contemplates building a house for himself and family, and would like to talk about plans. He then usually produces a diagram showing the number and approximate arrangement of the rooms he would like, and proceeds to inform the architect what he wants, what he don't want, and how he wants it done. As soon as the client pauses for a moment, to catch his breath, the architect asks the question which has been trembling on his lips for the last half hour—"how much money are you willing to put into your house?" Almost invariably the client's reply to this simple question demonstrates the fact that what he wants and what he is willing to pay for do not agree, and the architect's first duty is to convince him of the fact. After an hour or two the interview terminates with a promise by the architect to make preliminary sketches and to guarantee satisfaction to the client. This latter promise is not always easily fulfilled, for sometimes a client proves difficult to please, but usually he is reasonable, and the architect succeeds, in time, in designing something which suits his client exactly. But he has merely found out what he really wants, and must now proceed to embody the same in the plans and specifications. Much time has already been spent in this preliminary work; perhaps half a dozen different sketches have been made, the client has visited the architect ten or a dozen times, sometimes bringing his wife and several other members of his family, and occasionally monopolizing a whole morning of the architect's valuable time, while important letters lay piled upon his desk requiring his personal attention, and requesting an immediate response, and several builders and contractors waited impatiently in another room for an interview regarding work already under contract or about to be let. By the time the house is completed some forty or more detail drawings may have been made, besides fifteen or twenty scale

drawings and about forty visits made to the premises to see that the work was being executed according to the plans and specifications.

But this is not all; every office should have duplicate drawings for the purpose of reference. The plumber and the furnace man must have duplicates of such portions of the plans as relate to their respective departments, and if the work is let out in several separate contracts each contractor requires a duplicate for his own personal information. The architect is the first one to do any work on the house and the last one with whom the owner settles. The house may be six months or a year in building. In the meantime there are running expenses of the office to be paid, such as rent, draughtsmen's salaries, drawing materials, etc., to say nothing of incidentals.

Thus it will be seen that taking a five-thousand dollar dwelling house at the schedule price of five per cent., the architect is very inadequately paid for his services. In fact no architect can pay expenses on dwelling house work alone even at five per cent., but when he is compelled to take such work at three per cent., as many are, he finds to his sorrow that it is a losing business. But as the grocer keeps sugar to accommodate his customers, even though he sometimes loses money on it, so the architect must do dwelling house work, even though he does it at a loss, depending on the heavy jobs he may chance to get to help balance his exchequer.—*Architectural Era.*

The foregoing remarks from the *Architectural Era* represent fairly the circumstances under which architects prepare plan, and the manner in which they are remunerated. Many architects in this city do not receive the true value of their services owing to the limit of professional charges being placed at five per cent. Take, for instance, the case of an owner who is erecting a fine dwelling with all modern conveniences, at the extreme westerly limit of the Pacific Heights. The cost thereof may be in the neighborhood of \$8000. The architect's commission is \$400. Compare the work outlined in the article above with the amount noted. Add the forty or more trips to the locality mentioned, and what profit does the architect have for his time and talents. The hints given should be carefully noted by owners, and they should take pride in seeing that those who studied long and earnestly to make plans for a comfortable home, should be remunerated in a manner befitting their professional calling.

Pay Day and Welcome.

Subscribers to this Journal should bear in mind that the annual pay time of a large number of subscriptions has rolled around, and is now due and payable. All are earnestly requested to call at once and settle arrearages, and renew for 1889, and thus express such

A HEARTY WELCOME.

To the new management as will assure it of undivided support from the members of the architectural profession, and every contractor, builder, material man, and of all classes and callings, engaged in works connected with building construction. Owners of property, those engaged in house furnishing, furniture, carpets or in any way identified or interested in housework should give both advertising and subscription support, as more than ever, this journal will become the great channel through which all important reliable business information and facts will flow.

Under a New Management.

This journal is now under the control of the "ARCHITECT Publishing Company." All accounts due are payable to the company, at their new offices, 408 California street, rooms 14, 15, 16 and 17.

All who intend to build a home for themselves should fully realize the importance of first knowing just what can be done with a given amount of money, in the building, furnishing and beautifying their buildings and grounds, so that when the whole is finished, they can truly say it is simply complete.

It has been found that steel mixed with twenty-four per cent of manganese becomes non-magnetic.

"Soaking" in the fire causes steel to become "dry" and brittle, and does it very great injury.

CHEAP LUMBER AND BUILDING.

WE took occasion, in a late issue, to allude to the rivalry that is being waged between our manufacturers of lumber and the damaging effect it is having on that interest, deprecating the same as tending to a useless waste of our own timber resources, besides being otherwise lacking in business sense. From the consequent cheapness of lumber there is resulting, however, some benefits to the community at large, albeit at the expense of the lumbermen themselves. The cheapness of this article has greatly stimulated building and other improvements involving a large use of lumber.

There is said to be in this city a greater number of dwelling-houses in course of erection at this time than ever before, the same being true of many other towns in the State, both interior and coastwise, except, perhaps, in the southern tier of counties, where the building "boom" has somewhat abated.

Aside from the houses being built, an unusually large number of contracts have been entered into for the erection of others to be put up during the coming spring and summer. Many business places, some of them large and costly structures, are also being built both here and elsewhere, their erection being prompted, in part at least, by the same consideration. Cheap lumber is not therefore, one of those ill winds that blows nobody any good.

It may in the end even work to the advantage of the lumbermen themselves, the impetus so given to building creating such a demand for their product as will, through the depletion of stocks, force up the price of that commodity.

It is surprising the effect that a drop of a few dollars per thousand in the cost of lumber has on the owners of real estate, causing them everywhere to be seized with a desire for improving their property. The cost of labor and other materials may remain as high as ever, and even be advanced, yet this is all lost sight of in view of the lessened cost of this one article.

While the lumber question is one of moment with all real estate owners, it undoubtedly weighs most with small holders, the owners of only two or three lots, or perhaps merely a homestead, on which they make haste to build when the cost of this one item drops a little below the ordinary standard. That this view of the situation is correct is obvious from the improvements going on in the outskirts of the city of San Francisco. Visiting that quarter of the city we see hundreds of small houses being built, the most of them evidently intended for occupancy by the owners. But beside this class of tenements, which are apt to be widely scattered, there are others put up in long rows designed for rent, the possessions of larger real estate proprietors.

One going into the Western Addition, and seeing there so many houses being built, gets the impression that this suburb is forging ahead at a specially rapid rate. If he visit the southern part of the town, he is in like manner led away with the idea that this section is meeting with an abnormal growth. Out along the old Mission and the old San Bruno roads building enterprise is undergoing a wonderful expansion, as well as along both sides of the Potrero, lying off in that direction. Even up the sides and over the tops of the high hills occupying the southwestern part of the city, improvements are creeping, showing that these less desirable localities are already in request, with the prospect of becoming densely populated in the near future.

By reason of this large consumption of lumber, it is to be hoped that the manufacturers of that article will, through improved prices, find some compensation for the meagre returns they are now realizing from the products of their business.

The above from *Wood and Iron*, of this city, expresses the true state of the lumber market. We take pleasure in printing the article, as it coincides with many of the ideas advanced by the *CALIFORNIA ARCHITECT*. "It is surprising the effect that a drop of a few dollars per thousand in the cost of lumber has upon the owners of real estate." Friend Everett, we cordially agree with you and beg to welcome you to our fold. Time over and again have we advanced that same proposition, and the same number of times have we been combatted, Friend Everett, taking the stand that a few dollars per thousand, more or less, did not or would not affect the price of building. It is not only the price of the rough lumber used, but the mill men make a vast difference on their bids, owing to the high value of surfaced lumber. This journal has always taken the stand that \$22.50 was too high for lumber, while \$12 or \$13 per M. was a ruinously low figure. We believe that \$18 is a fair price to consumers and manufacturers, and an earnest endeavor should be made to maintain the price of lumber at that figure.



FULL OF PROMISE.

The years since 1880 have been periods of gratifying and increasing prosperities in California, in all departments of building, commercial and business enterprises, checked only for a limited time by an occasional "dry season,"—some portions of the State "booming" to the utmost extent of possibilities, stimulated by every art and device known to those handling and manipulating property interests, while San Francisco and other cities, towns and sections have glided along in the even tenor of their ways, stimulated, growing and prospering alone upon the solid merits of the realities within their respective boundaries.

Such has been the state of facts particularly in the building interests. The building statistics from time to time appearing in this journal show the approximate, but not the ultimate, amount of investments, as often as the sum of contracts decided upon the commencement of operations, and upon which such statistics are based, are considerably increased before completion, by extras which in some cases amount to a considerable percentage on the sum of original contracts.

But viewing prospective results for current year from present data the generally expressed prediction is that 1889 will be one of the exceptionally good years in this State. Everybody who can control their finances to that end, expresses the determination to build, and ere the summer months roll around, every building operative from architect to sewer-layer will have ample employment, with the very certain probability that the supply of labor in many of the departments, especially skilled mechanics, will be short of the demand. Hence, advance in the rates of wages in some lines may reasonably be anticipated, and those who commence later in the season may expect to pay higher prices than those who at the present time have their plans prepared and in the market for bids. Notwithstanding the large number of tenement houses erected each succeeding year, there are few desirable habitations to rent, and as fast as new ones are completed tenants are found to occupy them, thus evidencing the fact that those who have property to improve, and money to invest, run no risk in planting their surplus or available coin in building improvements, particularly at the present low price of lumber materials.

PLATE GLASS MAKING.—This is now an extensive industry in this country. The principal works are at New Albany, Indiana, where 1,500,000 square feet is made annually. Nearly as much is made at St. Louis, Mo., and a works at Pittsburg, Pa., turns out 360,000 square feet each year. The total is 3,000,000 square feet, or 568 acres of plate glass ground true and polished. No enormous plates, such as were exhibited at the Centennial exposition by French makers have been produced and are not required. Plate glass of unusual dimensions is a luxury, and possesses no merit or advantage corresponding to its great cost. The value increases as the square of the area.

The manufacturers of perforated seats have combined. Their object can be seen through.

Testing Foundations.

ANY resistance of the soil to pressure or great loads is generally left to be determined by experience. In the erection of the weighty and lofty structures on the Champ de Mars in Paris, in connection with the forthcoming exhibition, experiments have been conducted with this object in view for the purpose of determining the size of foundations. The method adopted was to level a large surface of ground and place four rectangular blocks of cast iron, 1 foot, 8 inches square, so disposed as to form the corners of a square, the distance apart being 11 feet, 8 inches from center to center. These blocks were bridged by girders of T-irons, and these were then loaded with the same until a total weight of 143,923 pounds was reached, when a settlement occurred. The pressure on the ground was 7,311 tons per square foot. During the night the settlement was increased about three-quarters of an inch. The load was increased next day to 209,776 pounds, when some of the corner blocks had sunk out of sight, leaving the girders on the surface of the soil. It was found by these experiments that the soil was capable of resisting a load equivalent to 5.43 tons per square foot. When the load reached 7.31 tons, settlement took place, and the ground was incapable of supporting a load of 8.14 tons per square foot. In heavy structures a weight of 8 tons per square foot is not unusual; several chimneys at Birmingham and St. Rollox, at Glasgow, exceed this amount of stress. St. Peter's at Rome bears a weight under the dome of nearly 15 tons per square foot, and it is estimated that the piers carrying the dome of St. Paul's, London, bear a weight per foot at the base of 17.705 tons per square foot. The very inadequate data furnished in books makes it necessary for the architect and engineer to make experiments when any heavy or lofty structure has to be supported. How many of the central towers and

spires of our cathedrals have failed it would be impossible to say, though the examples of Chichester and Ely ought to be warnings. —London Building News.

State Rights For Sale.

State rights, or the entire Pacific Slope, for sale, at bottom prices, of the best and most effective weather strips. Patent February 4, 1888. Excel all others for preventing air, dirt, water or snow from entering houses at the sides, top and bottom of doors and windows. No rattling of windows. No rubber or felt to loosen its elastic, but life-lasting symmetry in shape, with concave and convex interlock forming close joints. For prices, circulars and samples, address with stamp, E. P. Bureau & Co., Hazelton, Pa.

Draughtsman's Situation Wanted.

Situation as draughtsman in an architect's office, by a young man about twenty-one years of age, who has served his time at the carpenter's trade, and has a good knowledge of framework construction. Has had no actual experience in office work, but can make plans, elevations and ordinary working drawings. Can also draw in plain perspective, and has a general idea of detailing. Wages not so much of an object as a good place, with a chance to work up. Can give references as to character and habits.

Address, this office.

In planning a large edifice particular attention must be paid to the situation of the stairs, so as to give the most convenient and easy access to the several rooms.



CITY BUILDING NEWS.

Broadway and Scott, two-story frame. Owner, A. Bouvier; architect, F. Wilcox; contractor, R. Smith; cost, \$5,500.

Buchanan, near Union, two-story stable; cost, \$600.

Broadway and Scott, two-story and basement frame. Owner, Alfred Bouvier; architect, Fred. E. Wilcox; contractor, Robert Smith; amount, \$1,242; limit, 120 days; filed, January 17; signed, December 11. Payments, \$1,200 framed; \$1,200 plastered; \$781.50 completed; \$1,060.50 35 days.

Bartlett and 22d. Owner, F. L. Turpin; architect, Geo. A. Bordwell; contractor, R. P. Waddell; amount, \$3,912; limit, June 1; filed, Jan. 23; signed, Jan. 21. Payments, \$590, framed; \$590, brown coated; \$590, white coated; \$597, completed; \$790, 35 days after.

Bush, between Kearney and Dupont, stone work. Owner, Kate M. MacDonough; architect, J. M. Wood; contractor, O. E. Brady; amount, \$14,500; limit, 60 days; filed, Jan. 22; signed, Nov. 8, 1888. Payment, 75 per cent work done, etc., on first Tuesday of each month; balance, 35 days after completion.

Brannan, near First. Owners, Warehouse Land and Improvement Co.; architects, Schulze & Meeker; contractors, Gray Bros. Artificial Stone Co.; amount, \$2,472; sureties, C. A. Warren and F. S. S. Buckingham, \$900; limit, 30 days. Pavement of one-story and basement of warehouse, \$618; 11,735 square feet are laid; \$618, 23,470 square feet are laid; \$618, completed; \$618, 35 days.

Church, between Twentieth and Twenty-fourth, carpentering. Owner, Frank Giroi; architects, Schulze & Meeker; contractor, Jacob Klein; amount, \$4,812.50; sureties, C. S. Holmes and F. Joost, \$1,600; limit, 90 days; filed, Jan. 30; signed, Jan. 26. Payments, \$608.50, framed; \$1,000, partition studs up; \$1,000, white coated; \$1,000 completed; \$1,204, 35 days.

Chestnut, near Larkin, improvements; cost, \$500.

Central Ave., near California, two-story frame. Owner, Mr. Green; contractor, F. Weineoh; cost, \$4,500.

Caroline, near Howard, two-story frame. Owner and builder, Chas. Warren; cost, \$1,200.

Devisadero and Pacific, dwelling. Owner, A. D. Moore; architect, Clinton Day; contractor, Peter Crichton; amount, \$14,200; limit, June 1; filed, Jan. 7; signed, Dec. 29. Payments, \$4,000, ready to paint; \$4,000, stairs and ready to paint; \$2,650, completed; \$3,500, 35 days.

Ellis, near Broderick, one-story frame. Owner, Mr. Green; contractor, Deane; cost, \$2,000.

Eddy, near Broderick, two-story frame. Owner, Mr. Fortjee; contractors, Wheeler & Burdick; cost, \$4,500.

Eighth, between Market and Mission. Owner, Manning; cost, \$2,500.

Fifteenth and Noe, two-story frame. Owner, Robt. Acton; architect, R. H. White; contractors, Rountree Bros.; amount, \$4,325; sureties, J. F. Kennedy and L. B. Doe; limit, 90 days; filed, Feb. 2; signed, Jan. 31. Payments, \$900, roof boards on; \$800, rough mortared; \$700, finished up; \$825, completed; \$1,100, 35 days.

Frederick, near Second, additions; cost, \$1,000.

Fourteenth, near Howard, two-story frame. Owner, L. Dumas; architect, J. Behrens; cost, \$3,500.

Fourteenth Ave., between N street and Railroad avenue, one-story frame and basement building. Owner, Christian Hoerner; architect, D. Dodge; contractor, J. P. Rines; amount, \$1,200; filed, Jan. 22; signed, Dec. 27, 1888. Payments, \$250, framed; \$250, covered; \$300, brown mortared; \$400, 10 days.

Gough, between Vallejo and Green, two-story frame. Owner, Annie Cassell; architect, W. H. Wharff; cost, \$4,500.

Green, between Gough and Octavia, two-story frames. Owner, architect and builder; cost, \$6,000.

Geary, near Gough, one-story frame. Owner, Crandall.

Geary, No. 428, moving and alterations. Owner, John Michel; architects, John & Zimmermann; contractors, Schutt & Kreckler; amount, \$3,995; limit, April 1; filed, January 17; signed, January 17th. Payments, \$1,100 sidewalk walls completed; \$995 brown mortared; \$900 accepted; balance, 35 days.

Harrison and Fourth, two-story frame; 4 flats. Owner, F. E. Hesthall; architect, Geo. E. Voelkel; contractor John McKay; amount, \$5,100; sureties, Frank P. Latson and J. F. Kennedy, \$5,000; limit, 3 months; filed, January 17; signed, January 7. Payments, \$500 enclosed; \$825 first coat plastering on; \$1,300 second coat plastering on; \$1,200 accepted; \$1,275 35 days.

Henry between Sanchez and Noe, one-story frame. Owner, Winifred Ford; architect, J. C. Brown; contractor, J. C. Brown; amount, \$1,250; sureties, Jno. O. Doane; filed, January 10; signed, January 8. Payments, \$400 roof boards on; \$500 plumbing done; \$350 completed.

Howard, corner Fourteenth, one-story additions. Owner, L. Dumas; cost, \$2,000.

Henry, between Sanchez and Noe, one-story frame. Owner, Mrs. G. W. Ford; contractor, J. C. Brown; cost, \$1,500.

Howard, between Seventh and Eighth; frame. Owner, Thos. Brannan; architect, Wm. Mosser; contractor, C. A. Laherty; amount, \$6,400; sureties, ehrend Joost and John Rogers; limit, 100 days; filed, Jan. 29; signed, 25. Payments, 75 per cent as work progresses; balance, 25 per cent, 35 days after completion, receipted bills being produced.

Jackson and Devisadero, dwelling. Owner, Annie M. Healy; architect, T. J. Welsh; contractor, James W. Smith; amount, \$3,455; limit, three months; filed, Jan. 9; signed, Jan. 7. Payments, \$800, framed; \$800, brown coated; \$900, finished; balance, 35 days.

Julian Ave., near 15th, additions; cost, \$600.

Jackson and Buchanan, two-story frame. Owner, R. C. Foute; architect, Geo. A. Bordwell; contractor, R. P. Waddell; amount, \$3,495; limit, May 1; filed, Jan. 31; signed, Jan. 29. Payments, \$870, rustic on; \$880, plastered; \$870, completed; \$875, 35 days.

Kearny and Geary, build vaults. Owner, M. H. de Young; architects, Burnham & Root; contractors, Wilshire Safe & Scale Co.; amount, \$3,600; limit, Oct. 1, filed, Jan. 7; signed, Jan. 5. Payments, 75 per cent of labor and material to be paid for at end of each month, and balance, 25 per cent, 36 days after completion.

Kearny and Geary, painting and glazing. Owner, M. H. de Young; architects, Burnham & Root; contractor, H. J. Milligan; amount, \$13,622.50; limit, 10 days after carpenter work is done; filed, Jan. 7; signed, Oct. 15. Payments, 75 per cent, to be paid in amounts proportionate to work done; balance, 25 per cent 36 days after completion and acceptance.

Kearney and Geary, brown sandstone. Owner, M. H. de Young; architects, Burnham & Root; contractors, McLellan, McGowan & Butler; amount, \$4,500; limit, March 22, 1889; filed, Jan. 22; signed, Dec. 22, 1888. 75 per cent to be paid monthly, according to work done; balance, 25 per cent, 36 days after completion.

Kearny and Geary, plastering. Owner, M. H. de Young; architects, Burnham & Root; contractors, Boland Bros.; amount, \$6,995; limit, 60 days; filed, Jan. 22; signed, Oct. 9, 1888. Payments, 75 per cent, payable on 1st and 15th each month in installments proportioned to work done; balance, 25 per cent after completion and acceptance.

Larkin between Greenwich and Filbert, cottage. Owner, Mary T. Loveland; contractor, M. Shea; amount, \$2,100; sureties, J. W. Wesson; limit, 90 days; filed, January 9; signed, January 3d. Payments, \$400 framed; \$400 brown coated; \$400 inside finish on; \$375 completed; \$525 35 days.

Market, corner City Hall avenue, finish basement. Owner, Geo. T. Marye, Jr.; architect, Wm. F. Smith; contractor, E. L. Ransome; amount, \$7,650; limit, 40 days; filed, Jan. 22; signed, Jan. 19. Payments, 75 per cent of value of work done, to be paid as contractor may desire; balance, 35 days after completion.

Market, between City Hall avenue and Jones, four-story brick building. Owner, G. G. Burnett; architect, J. E. Wolfe; contractor, J. J. Conrad; for brick, stone and iron work; amount, \$14,740; limit, May 4, 1889; filed, Jan. 24; signed, Jan. 19. 1st payment, to be made when brick work is completed; 2d, when brick work is completed for 2d tier joists; 3d, when brick work is completed for 3d tier joists; 4th, when brick work is completed for 4th tier joists; 5th, when brick work is ready for ceiling, equal to 75 per cent of value of material used; balance, 25 per cent after completion and acceptance.

Market, between City Hall avenue and Jones, 50x100. Owner, G. G. Burnett; architect, James E. Wolfe; contractors, Bateman Bros.; amount, \$15,475; limit, 5 months; filed, Jan. 26; signed, Jan. 19; 75 per cent of value of labor performed, etc., in periods 20 days; 25 per cent 35 days after.

Market, between City Hall avenue and Jones, carpentering, four-story brick building. Owner, Margaret Lynch; architect, James E. Wolfe; contractors, Bateman Bros.; amount, \$6,940; limit, 5 months; filed, Jan. 26; signed, Jan. 19. Payments, 75 per cent to be paid every 21 days; balance, 25 per cent when completed.

Market and City Hall avenue, four-story brick building. Owner, Margaret Lynch; architect, James E. Wolfe; contractor, J. J. Conrad; amount, \$9,441; limit, May 4, 1889; filed, Jan. 26; signed, Jan. 19. 1st payment, brick work ready for main floor joists; 2d, ready for 2d floor joists; 3d, ready for 3d floor joists; 4th, ready for 4th floor joists; 5th, ready to receive ceiling joists, 4th story; each payment equal to 75 per cent work done, etc.; balance, 25 per cent, 35 days.

Main and Howard, carpentry. Owner, Est. Geo. H. Dana; architects, Pissis & Moore; contractor, J. Wissinger; amount, \$9,480; limit, 40 days; filed, Jan. 25; signed, Jan. 24. Payments, tin and hardware, \$1,500; 2d floor joists in, \$1,500; all roof trusses are in place, \$2,000; roof, timbers and floors laid, \$2,100; completed, \$2,380, 35 days.

McAllister and Scott, brick and carpenter work, etc., two-story and basement frame buildings. Owners, G. M. Perine and Wallace T. James; architects, John & Zimmerman; contractor, W. M. Fletcher; amount, \$17,000; limit, May 1; filed, January 11; signed, January 8. Payments, \$3,000 framed; \$3,000 partition set; \$3,750 rough plastered; \$3,000 accepted; balance, 35 days.

McAllister, between Scott and Pierce, four two-story frames. Owners, G. M. Perine, et al; architects, John & Zimmerman; contractor, W. M. Fletcher; amount, \$17,000; sureties, J. F. Kennedy; limit, May 1, 1889; filed, Jan. 28; signed, Jan. 8. Payments, \$3,000, framed; \$3,000, partitions set; \$3,700, outside finish on; \$3,000, accepted; \$4,250, 35 days.

McAllister and Scott, plumbing. Owners, G. M. Perine and Wallace T. James; architects, John & Zimmerman; contractors, S. Ickelheimer & Bro.; amount, \$2,069; filed, January 11; signed, January 11. Payments, \$700 first certificate delivered; \$869 all certificates; balance, 35 days.

McAllister, between Scott and Pierce, gas-fitting. Owners, G. M. Perine, et al; architects, John & Zimmerman; contractor, S. Ickelheimer Bros.; amount, \$2,069; sureties, Pauline Ickelheimer; limit, April 15; filed, Jan. 28; signed, Dec. 28. Payments, \$700, first certificate delivered; \$869, accepted; \$500, 35 days.

McAllister, between Scott & Pierce, painting. Owners, G. M. Perine, et al; architects, John & Zimmerman; contractor, J. Cooney; amount, \$1,195; sureties, John G. Adams; limit, May 1; filed, Jan. 28; signed, Jan. 11. Payments, \$400, inside finish ready to grain; \$395, accepted; \$400, 35 days.

Mission street and Sullivan alley, three-story and basement brick building. Owner, W. A. Aldrich; contractors, Richardson & Gale; amount, \$16,485; sureties, Frank Williams and Oscar Lewis, \$16,000; limit, 60 days; filed, January 16; signed, January 2. Payments, on 25th of each month owner will pay 75 per cent of estimated value of work done; balance, 25 per cent.

Main and Howard, three-story brick building. Owner, Est. Geo. H. Dana; architects, Pissis & Moore; contractor, E. R. Shain; amount, \$15,554; limit, 80 days; filed, January 16; signed, January 16. Payments, \$2,500 concrete is completed; \$2,000 walls are up to 1st story ceiling; \$2,500 walls are up to 2d story ceiling; \$2,000 walls are ready for roof trusses; \$2,500 when completed; \$4,044 35 days.

Mission, near 14th, two-story frame. Owner, A. S. Perly; day work; cost, \$6,000.

Mission, corner 14th, additions; cost, \$1,000.

Mission, near 15th, additions; cost, \$1,200.

Mason, No. 803, alterations. Owner, Richard Valentine; architects, Salfeld & Kohlberg; contractor, Henry Rohling; amount, \$2,475; sureties, F. Joost, \$2,475; limit, two months; filed, Feb. 1; signed, Jan. 21. Payments, \$900, roof on; \$925, completed; \$650, 35 days.

Noe and Ridley, two-story frame. Owner, Jane Noonan; architects, Copeland & Banks; contractor, Thos. D. Jones; amount, \$3,550; limit, April 1; filed, January 12; signed, December 24. Payments, \$800 framed; \$1,050 brown coated; \$800 completed; \$900, 35 days.

O'Farrell and Octavia. Owners, Young Women's Christian Association; architects, Wright & Saunders; contractors, Kincaid & Thompson; amount, \$20,497; limit, July 1; filed, Jan. 9; signed, Jan. 1. Payments, in installments on 1st day of each month, as work progresses, to value 75 per cent, and balance, 35 days.

Oak and Broderick, concrete, pumping and excavating. Owner, Omnibus Cable Co.; architects, Percy & Hamilton; contractor, E. L. Ransome; amount, \$6,100; sureties, S. B. Cushing and A. A. Wigmore, \$2,500; limit, 35 days; filed, January 12th; signed, January 11. Payments of 75 per cent, on first Saturday of each month; balance, 25 per cent.

Oak and Broderick, cast and wrought iron work. Owner, Omnibus Cable Co.; architects, Percy & Hamilton; contractors, O'Connell & Lewis; amount, \$13,000; sureties, Robt. Mitchell and D. F. N. Little, \$5,000; limit, as fast as possible; filed, January 12; signed, January 11. Payments on first Saturday of each month of 75 per cent; balance, 25 per cent, after completion.

Oak and Broderick, carpenter work, painting, plumbing, plastering, etc. Owner, Omnibus Cable Co.; architects, Percy & Hamilton; contractor, O. E. White; amount, \$21,470; sureties, Charles F. Doe and Frank P. Latson, \$7,000; limit, 20 days after brick work is done; filed, January 12; signed, January 11. Payments on first Saturday of each month of 75 per cent of value of work done; balance, 25 per cent, after completion.

Oak and Broderick, brick and stone work. Owner, Omnibus Cable Co.; architects, Percy & Hamilton; contractors, McGowan & Butler; amount, \$34,300; sureties, C. S. Holmes and W. P. Dougherty, \$12,000; limit, 50 days; filed, January 12; signed, January 11. Payments of 75 per cent, on first Saturday of each month; balance, 25 per cent, after completion.

Oak and ———, two-story frame. Owner, A. Foreman, Jr.; architect, G. G. Gillespie; contractor, G. G. Gillespie; amount, \$3,200; limit, 80 days; filed, January 10; signed, January 10. Payments, \$600 framed; \$600 brown mortared; \$600 white mortared; \$600 completed; \$800 35 days.

Oak and Broderick, plumbing. Contractor, O. E. White; sub-contractor, Thos. Clark & Sons; amount, \$1,900; limit, 15 days; filed, January 15; signed, January 15. Payments, 75 per cent of value of work done, etc., to be paid in installments the 1st Saturday of each month; balance, 25 per cent, 35 days.

Oak and Broderick, roofing and galvanized iron work. Architects, Percy & Hamilton; contractor, O. E. White; sub-contractor, W. S. Snook & Son; amount, \$6,785; limit, 25 days; filed, Jan. 15; signed, Jan. 12. Payments in installments on first Saturday of each month as work progresses, of 75 per cent of value of work done, etc.; balance, 25 per cent, 35 days.

Pacific and Steiner, plumbing. Owner, J. J. Wells; architect, Chas. I. Havens; contractor, Wm. F. Wilson; amount, \$1,180; sureties, H. W. Smith and Jas. J. Colvin; filed, January 11; signed, January 10. Payments, \$400 rough pipes in; \$480 completed; \$300 35 days.

Parker Ave., near Point Lobos, one-story frame. Owner, John Ogilvie; architect, D. F. McGraw; contractor, D. F. McGraw; amount, \$1,500; limit, April 1; filed, January 19; signed, January 7. Payments, \$500 when brown mortared; \$500 outside work done \$500 completed.

Parker Ave., near Point Lobos avenue, one-story frame. Owner, Geo. Wright, architect, D. F. McGraw; contractor, D. F. McGraw; amount, \$1,500; limit April 1; filed, January 19; signed, January 7. Payments, \$500 when brown mortared; \$500 when outside work done; \$500 completed.

Pine, between Lyon and Central avenue, dwelling and stable. Owner, Fred K. Rake-man; architect, Townsend & Wyneken; contractor, Wm. Linden; amount, \$2,800; limit, 120 days; filed, Jan. 15; signed, Jan. 9. Payments, \$560, framed; \$560, enclosed; \$560, 1st coat paint; \$560, completed; \$560, 35 days.

Page, between Gough and Octavia, building. Owner, James Reilly; sureties, W. A. Meeker; architects, Jno. J. Clarke; contractor, W. Linden; amount, \$5,300; limit, 120 days; filed, Jan. 22; signed, Jan. 10. Payments, \$1,000, framed; \$1,000, enclosed; \$1,000, brown coated; \$1,000, inside finish complete; \$1,300, 35 days after.

Page and Scott, three-story frame. Owner, Jos. Hess; architect, H. Geilfuss; contractor, H. J. Weiss; amount, \$7,168; filed, Jan. 7; signed, Jan. 2. Payments, \$900, framed; \$900, roofed; \$900, partitions set; \$900, brown coated; \$900, white coated; \$868, completed; \$1,800, 35 days.

Pacific, near Larkin, improvements, \$1,000.

Sutter, near Powell, brick and stone works. Owner, Wm. T. Commary; architect, Robt. H. Daley; contractor, Geo. D. Nagle; amount, \$2,700; limit, 30 days; filed, Jan. 15; signed, Dec. 8. Payments, 75 per cent as work progresses; balance, 25 per cent, 35 days.

Scott and Post, frame building. Owner and architect, T. J. Welsh; sureties, Frank P. Latson and J. J. McKinnon; amount, \$4,000; contractors, Brennan Bros.; amount, \$4,540; limit, 90 days; filed, Jan. 25; signed, Jan. 19. Payments, brick and carpenter work for frame building; \$1,000, framed; \$1,000, brown mortar on; \$1,000, accepted; \$1,540, 35 days after.

Stockton, between Ellis and O'Farrell, five-story and attic brick building. Owners, E. D. Keyes, Marianna C. Loughsborough and F. George; architect, Chas. Geddes; carpenter, A. Miller; amount, \$47,700; mason, J. McCarthy; \$36,232; iron, O'Connell & Lewis, \$9,500; plumbing, Shephard Bros., \$7,696; Gal. iron, Conlin & Roberts, \$9,580; glass, Whittier & Fuller, \$3,575; painting, Downing, \$3,000; wrought iron, Ralston, \$7,388; stone, R. A. Lewis, \$1,548.

Sutter, near Webster, additions; cost, \$600.

Sacramento, near Larkin, two-story frame. Owner and builder, R. Grier; cost, \$4,500.

Twenty-third and Dolores, painting. Owner, N. J. Stone; architects, Percy & Hamilton; contractor, P. S. Poland; amount, \$1,260; limit, as soon as possible; filed, Jan. 31; signed, Jan. 22. Payments, installments of 75 per cent, on first Saturday of each month, as work progresses; balance, 25 per cent, after completion.

Turk, between Laguna and Buchanan, three-story frame. Owner, Wilhelmina Hess; architect, Bernard Dryer; contractor, Bernard Dryer; amount, \$5,600; limit, May 10; filed, Feb. 2; signed, Feb. 1. Payments, \$1,500, framed; \$1,200, brown coated; \$1,500, white coated; \$1,490, 35 days.

Twenty-third and Alabama, two-story frame and moving stable. Owner, Jos. M. Schulz; architect, H. Geilfuss; contractors, Gray & Stover; amount, \$3,625; filed, Feb. 2; signed, Jan. 30. Payments, \$905, framed; \$905, white coated; \$905, completed; \$910, 35 days.

Treat Ave., between Twenty-fifth and Twenty-sixth, two-story and basement building. Owner, Wm. Ferris; architect, Geo. Houston; contractor, Geo. Houston; amount, \$2,690; limit, 90 days; filed, January 19; signed, January 11. Payments, \$500 rustic on; \$500 brown coated; \$500 white coated; \$500 completed. \$690 35 days.

Twenty-third and Dolores, carpenter work. Owner, N. J. Stone; architects, Percy & Hamilton; contractor, F. W. Kern; amount, \$13,490; limit, 90 days; filed, Jan. 24; signed, Jan. 22. Payments, carpenter work in installments, on first Saturday each month, of 75 per cent as work progresses; balance, 25 per cent 35 days after completion.

Twenty-third and Dolores, plastering and deafening. Owner, N. J. Stone; architects, Percy & Hamilton; contractor, J. L. Crich-ton; amount, \$1,697; limit, when building is ready; filed, Jan. 24; signed, Jan. 22. Payment in installments, on first Saturday of each month, of 75 per cent, as work progresses; balance, 25 per cent, 35 days after completion.

Twenty-third and Dolores, brick and artificial stone work. Owner, J. N. Stone; architects, Percy & Hamilton; contractor, J. Wagner; amount, \$2,545; limit, 25 days; filed, Jan. 24; signed, Jan. 22. Payments in installments on first Saturday each month, 75 per cent as work progresses; balance, 25 per cent, 35 days after completion.

Twenty-third and Dolores, plumbing and sewerage. Owner, N. J. Stone; architects, Percy & Hamilton; contractors, Shepard Bros.; amount, \$2,128; filed, Jan. 24; signed, Jan. 22. Payments, installments on 1st Saturday of each month, of 75 per cent as work progresses; balance, 25 per cent 35 days after completion.

Twenty-fourth and Dolores, two-story frame. Owner, Geo. I. Mouck; architect and contractor, Geo. Houston; amount, \$2,818; limit, 100 days; filed, Jan. 14; signed, Dec. 31. Payments, \$703, shingled; \$705, brown mortared; \$705, doors and windows in; \$705, 35 days.

Twenty-second, between Fair Oaks and Guerrero, double frame building. Owner, James C. Blair, et al; architect, Henry T. Bestor; contractor, R. Doyle & Son; amount, \$2,889; sureties, C. H. Castle and John McCarty, \$1,500; limit, 70 days; filed, Jan. 15; signed, Jan. 14. Payments, \$450, rustic on; \$600, brown mortared; \$600, white mortared; \$514, completed; \$725, 35 days.

Union, between Fillmore and Steiner, two-story frame. Owner, Mr. Harper; contractor, R. Brotherton; cost, \$3,000.

Union, near Buchanan, one-story addition; cost, \$1,200.

Union and Fillmore, two-story frame. Owner, A. Postel; architect, B. E. Hendrickson; contractor, Robt. Currie; amount, \$3,420; sureties, Frank P. Latson and John J. Cooney, \$3,400; limit, 65 days; filed, Jan. 25; signed, Jan. 19. Payments, \$640, roofed; \$640 outside finish on; \$640, sashes glazed and hung; \$640, trimmings on; \$860, 35 days after.

Valencia, near 25th, one-story frame; cost, \$800.

Vernon Place and Third, two-story frame. Owner, John Demartini; architect, Geo. E. Voelkel; contractors, C. F. Robertson and Fritz Roettger; amount, \$2,254; sureties, J. W. Wesson; limit, 60 days; filed, January 12; signed, January 5. Payments, \$300 enclosed; \$500 first plastered; \$800 completed; \$564 35 days.

NEW CITY HALL CONTRACT.

The bids for constructing the plinth course of the McAllister street wings for the construction of an elevator in the Larkin street wing, and finishing five rooms in the main building are as follows:

PLINTH COURSE.	Small Wing.	Large Wing.
M. J. Healey & Co.	\$7,939	\$8,411
McGowan & Butler	8,500	9,100
Anton Ill & Doe	7,083	7,380
F. E. Knowles & Co.	11,750	11,750
FINISHING ROOMS.		
J. Kemp & Co.	\$9,900	
F. A. Williams	5,995	
McCann & Ridd	5,690	
McGowan & Butler	7,710	
Antonelli & Doe	6,500	
CONSTRUCTION OF ELEVATOR.		
A. J. McNicoll	\$4,500	
W. T. Garratt & Co.	6,049	
W. H. Birch & Co.	4,830	
W. H. Birch & Co.	4,895	
W. H. Birch & Co.	5,550	
W. H. Birch & Co.	5,976	

All the bidders will be required to produce samples of the stone to be used in construction.

COUNTRY BUILDING NEWS.

THE LOS ANGELES BUILDING.

Bids Opened by the Supervising Architect at Washington.

WASHINGTON, Feb. 5.—Bids for the construction of the new public building at Los Angeles were opened at the office of the Supervising Architect to-day. Bids from Los Angeles were received as follows: John Hanlon, \$150,000; Fletcher & Smith, \$163,566; P. E. Green, \$181,360; McNally & McCormack, \$199,700. From Washington, D. C.—Holtz-law Bros., \$126,355; McCarty & Baldwin, \$132,000; Lane & Malone, \$141,956; Bright & Humphrey, \$148,637; James H. Coster, of Baltimore, \$130,877; J. L. Garing & Son, of Detroit, \$134,000.

The * California * Architect * and * Building * News

VOLUME 10.

ENTERED AT POST-OFFICE SAN FRANCISCO, AS SECOND-CLASS MAIL MATTER. ESTABLISHED JANUARY, 1879.

NUMBER 3.

NOW IN ITS TENTH YEAR!

THE California Architect and Building News.

ESTABLISHED JANUARY, 1879.

Office, 408 California St., San Francisco.

(Next to the Bank of California.)

Official Organ of the San Francisco Chapter American Institute of Architects.

TERMS PER ANNUM, - - - - \$2.00 IN ADVANCE

Published on the Fifteenth of each Month.

When money is sent for subscriptions, the receipt of a copy of this Journal is an acknowledgment that it has been received. Unless requested we do not send receipts.

OUR ADVERTISING RATES.

SPACE.	1 MONTH.	3 MONTHS.	6 MONTHS.	12 MONTHS.
1 Inch,	\$ 1 50	\$ 4 00	\$ 7 50	\$ 13 00
3 Inch,	4 00	10 00	18 00	35 00
6 Inch,	7 50	18 00	32 00	60 00
1 Column,	12 50	35 00	65 00	125 00
1/4 Page,	11 00	30 00	57 50	105 00
1/2 Page,	20 00	57 50	105 00	200 00
3/4 Page,	30 00	80 00	150 00	275 00
1 Page,	40 00	110 00	200 00	350 00

Full-page advertisements inserted among reading matter, fifty per cent extra on above rates.

Specially attractive advertisements, without extra cost, will be set up in the finest style where the advertiser furnishes cuts.

CASH MUST ACCOMPANY ALL ORDERS FOR ADS.

ADVERTISEMENTS ALONE INSERTED THAT REFER TO MATERIALS USED IN THE CONSTRUCTION AND FURNISHING OF HOUSES, AND TO MATTERS AND TRADES BELONGING TO THE BUILDING INTEREST.

— NO OTHERS RECEIVED. —

PARTICULAR NOTICE.—Each advertising page contains three columns, each of which is about two and a half inches wide. One inch means one inch in depth by two and a half inches in width.

Spaces on Cover and on page preceding reading matter are subject to special rates.

SAN FRANCISCO, MARCH 15, 1889.

San Francisco Chapter, American Institute of Architects.

Since the Chapter secured rooms under their own control, the meetings have been better attended than at any previous time in its history. At the first gathering held in the new quarters, there were seventeen members present; at the last one held on March 1, after the regular business was disposed of, the members indulged in an all around conversation that was greatly enjoyed by those present.

Chas. Mau, of Oakland, was unanimously elected a member as Fellow.

Messrs. Babson, Daley and Cuthbertson were appointed a committee to revise the By Laws and present the same to the Chapter for consideration.

The following resolution was adopted. That it is the sense of this meeting that a prize be offered for the best design for a book case, for the use of the Chapter.

Under the new Regime.

The stockholders of the ARCHITECTURAL PUBLISHING COMPANY met last Tuesday and formally adopted the By-Laws previously presented for their consideration. The election of Directors immediately followed and the following were declared elected for the first year:

W. P. MOORE. W. J. CUTHBERTSON.
E. J. MOLERA. A. PISSIS.
S. BABSON. H. T. BESTOR.
O. EVERETT.

Subsequently the Directors met and elected the following named as officers:

PRESIDENT, W. P. MOORE.
VICE-PRESIDENT, W. J. CUTHBERTSON.
TREASURER, S. BABSON.
SECRETARY, O. EVERETT.

For the present, the business management will remain the same as usual. All the officers elected are well known in the architectural profession and their names guarantee that the CALIFORNIA ARCHITECT will show a decided improvement in every department, over those of previous issues.

The success of the Journal since moving into their new quarters, has been somewhat remarkable. Scores of new names have been added to our subscription lists. The advertising pages tell their own story. Our illustrations are far superior to those we have hitherto presented. The paper used in printing was imported solely for our own use. Our offices are beautifully furnished. List of exchanges include all the prominent ones in the U. S. The reading room will be supplied with all the latest works on architecture and kindred sciences. All our friends are invited to call and examine the new Architectural Headquarters in the building, 408 California street, next to the Bank of California.

Premium for a Design for Book Case.

At the last meeting of the Chapter of Architects, it was decided to offer a premium for the best design for a book case for the new rooms of the Chapter. The prizes will be announced in our next issue.

Draftsmen and Students Edition.

We would like to hear from more of our students in architects' offices in the country. Those in the city have expressed a great willingness to do all they can towards presenting an edition that will justly represent the progress made by them since adopting their profession. We want the country well represented. The edition will be solely in the interests of draftsmen and students.

The Hibernia Bank Competition.

Architects generally are satisfied with the awards made in the Hibernia Bank competition. Architects from different sections of the east entered the competition. A large number of our local talent prepared plans for same. The result is as follows:

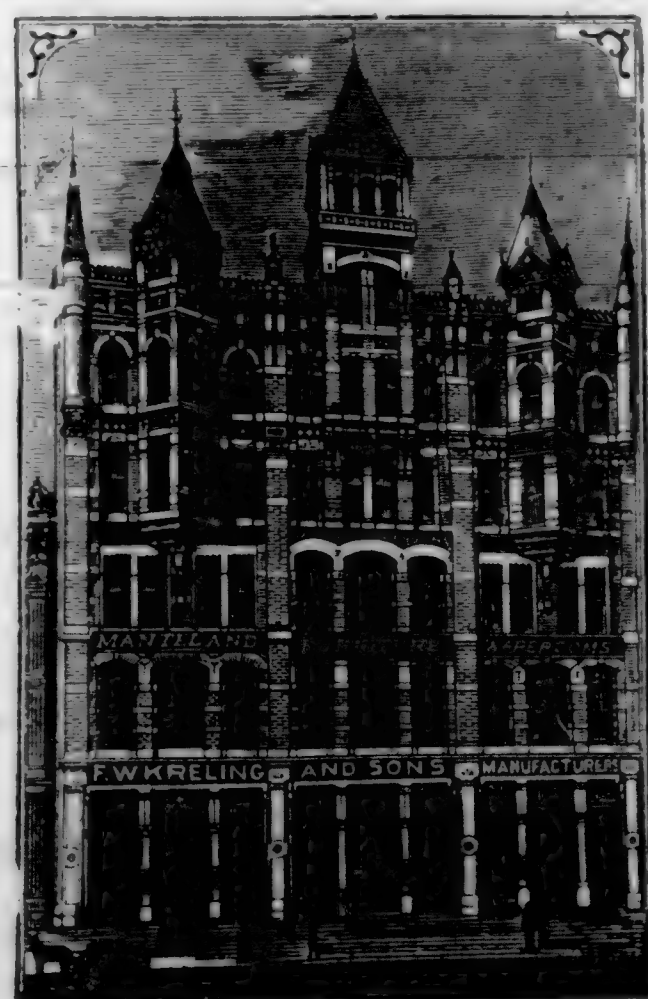
First premium, Pissis & Moore. These gentlemen prepare all plans, have the superintendency of the buildings, etc.

Second Premium, \$1,000 awarded to Schmidt & Shea.

Third premium, \$500 awarded to T. J. Welsh.

One noticeable feature in the competition should be mentioned, viz. the general good feeling that prevailed among the contestants. There was no sign of jealousy shown. The fact that Eastern firms were preparing plans, only stirred our own architects to greater exertions, and had the prizes been won by our friends on the other side of the Rockies, they would have received hearty congratulations from their professional brethren in this city.

The building contemplated will be one of the finest in the city, and, when fully completed, will not have cost much less than \$400,000.



F. W. KRELING & SONS,

Manufacturers of Elegant

PARLOR and CHAMBER SETS,

DINING-ROOM, BANK AND OFFICE FURNITURE,

WOOD MANTELS AND INTERIORS,

Rich Upholstery, Draperies, Bedding, Etc.

SOLE OWNERS OF THE

SQUARE & OCTAGON TURNING MACHINES,

For Balusters, Newel Posts, Etc., Etc.,

WAREROOMS:

534 and 536 MARKET STREET.

Telephone 3192.

FACTORY:

319-329 GUERRERO STREET.

Telephone 6113.

SAN FRANCISCO, CAL.

Filing and Abstracting Contracts.

Between the legal requirement that all building contracts in excess of \$1,000 shall be filed with the County Recorder to insure their validity and force, and the stealing thereof from the official files, there is but little difference in a moral aspect of the case. Both are wrongful acts, and neither is defensible by the logic of reason, right or justice.

When, a short time since, it became known that one or more—and how many more has not been made known—of contracts, filed in compliance with the requirements of a form of lien law found upon the statute book of this State, had been carried away without permission—i. e., stolen from the office of the County Recorder—the question became general as to the reasons why they were taken, and the motives that influenced the theft. The special reasons and motives that actuated in each case are the secret of the stealer alone; but it is very transparent that the motives were dishonest and corrupt, and the purpose in view to gain some point of advantage not possible under the rightful order of things, and which could be secured only by the removal and virtual destruction of the legal, written testimony; or a spirit of malice and spite toward one or both of the parties to the contract missing might have led some one to pocket the papers, not for any pecuniary advantage to the party, but with the intent to make trouble between others. Very many additional possible and probable suggestions might be added, but they are immaterial as to the facts of the case.

But the affair serves to illustrate one of the numerous beauties of the lien law in this State, which requires that *only building contracts*, when in excess of \$1,000, shall be filed in the County Recorder's office to save them from being "*cholly void*"—a proposition as devoid of reason and fair dealing as it is of merit and soundness. Still, such is the law on the statute books, although both State and National constitution declare that no law shall ever be passed by any State Legislature "impairing the obligations of contract." But the law making Solons of Californians who aided in formulating and passing the present lien law, among its numerous other unjust and oppressive provisions, injected the filing idea as a mild but decidedly effective means of nullifying constitutional restrictions upon the points in issue, beside which its supreme special character renders it unconstitutional and void.

Quarterly Summary of Building Operations.

But once, since records have been kept, has the summary for the present first quarter of the year been exceeded in value, and then only by the bonanza year of 1885. The comparison stands for the first quarter of each year, as per table:

YEAR.	ENGAGEMENTS.	VALUE.
1885.....	288	\$2,069,261
1886.....	252	1,359,532
1887.....	191	1,209,100
1888.....	173	1,049,800
1889.....	238	1,874,600

For the present quarter the summary shows:

MONTH.	Brick.	Value.	Frame.	Value.	Alterations.	Value.	Total.	Value.
January.....	4	\$131,000	64	\$120,200	16	\$93,500	84	\$420,200
February.....	9	832,000	49	218,600	13	26,900	71	1,077,500
March.....	4	63,000	69	287,000	10	26,900	83	376,900
Totals.....	17	\$1,026,000	182	\$925,800	39	\$147,300	238	\$1,874,600

In above we have allowed \$450,000 as the cost of the new *Chronicle* building. The numerous large buildings to be erected will make the summary of this year equal to or surpass that of 1885. The Academy of Science building, the Hibernia Bank, the Parrott building, the Olympic Club edifice, etc., are all costly buildings, the value of the four mentioned being well on to one and a half millions of dollars.

Owners are to be congratulated on the present prices of building materials. Several of the leading lumbermen have assured us that the large prices asked last year for lumber will not be reached this year. They seem determined to have a market in San Francisco, irrespective of any country demands.

On the whole, prospects never looked better for an active season than they do at present.

IRON SHUTTERS AND FIRES.

FIRE and water calls attention again to the discussion which has been going on in the newspapers about the value of iron shutters in protecting buildings from the effects of conflagrations outside of them, and makes some very timely remarks on the subject. The history of the curious case in New York, where a building considered nearly fireproof was destroyed, with its contents, because the firemen found it for a long time impossible to open the iron shutters, or break through the brick roof, so as to throw water on the blazing goods inside, has been copied into nearly all the daily journals in this country, and many foreign ones, and, with their usual celerity in reasoning from the smallest possible number of facts, the newspaper theorists have decided that buildings would be better off without any shutters at all, and there is some danger that they may persuade owners of store property in some cases to refuse to use them. It ought to be needless to say that this would be a grave misfortune, and the underwriters' associations should be on their guard against the dissemination of such notions. Of course, the real object of shutters is to keep fire on the outside from entering a building, and they accomplish this object a hundred times for every time that they prevent firemen from reaching a blaze inside the building so protected. Moreover, there is no necessity for fastening iron shutters in such a way as to keep firemen from opening them from the outside. In New York where burglars are more dreaded than fire, as there is no insurance against their ravages, outside shutters are usually firmly secured on the inside, but in Chicago, if we are not mistaken, it is the rule to arrange the shutters so that all of them can be opened from the outside, and in many places one window in each story is protected by shutters so arranged. One of the best shutters we have seen is a patented one, which fastens on the inside, with a latch hooking over a bar, in the usual way, but has on the outside a plate, connected with a small lever passing through the shutter, by which the latch can be lifted. The plate protects the small opening through which the lever passes, and is so arranged that by directing a powerful stream of water upon it, from a fire engine or hydrant, the lever is moved, lifting the latch, and allowing the shutters to swing open, which they do under the pressure of light springs. A shutter of this sort is as safe against fire as anything that can be made, yet it can be opened in a moment from the street by the firemen without requiring ladders, which can hardly be used if a fire is raging on the opposite side of the street, or after the flames have burst out of the lower windows of the building to be dealt with.

Draughtsmen and Students' Edition.

We have received a fine collection of drawings from a student in the Livermore Valley, and they will appear in the edition which we will present, illustrating the progress of our draughtsmen and students. We hope to have at least the studies of young men from twenty-five different offices. On our part, we will take extra care in having the cuts (illustrating the drawings) of a superior character. Please send word to this office in regard to your furnishing drawings.

Our Illustrations.

The engraving on page thirty-three represents an elevation of a tall building similar in design to many of those being erected in the East.

"Precita" and "Tiburón" were kindly furnished us by Mr. S. Newsom, architect, of this city.

By the first of April, it is now officially reported, that wonderful creation the Eiffel Tower at Paris will have reached its full height and been entirely completed. At present it stands 825 feet high and weighs 7800 tons, and there remain but 800 tons to be added. The committee has selected three different models of lifts. Two lifts will go up to the first platform, two others to the second, and another lift will move between the second and the third platform in a vertical line. The whole trip up will take five minutes, and the cages will be able to take up 750 persons an hour to enjoy the novel and magnificent panorama spread before them from a height of close to 1,000 feet. The building of this novel structure was a tremendous undertaking; it remains to be seen whether or not it will, as has been predicted by some, turn out simply a costly curiosity of a day.

A Man in the Kitchen.

NO man worthy of the name, permits his wife, or any woman in the house, to perform the heavy drudgery of carrying coal and wood, caring for furnaces and stoves, moving stoves or heavy furniture, beating carpets, and so on. But this need not be the limit of a man's usefulness about the house. There is no good reason why a man should not be able to broil a steak, boil or bake potatoes, cook an egg, make coffee or tea, and prepare other articles of food should an emergency arise to make it desirable (and such emergencies do often arise); and do it, too, without turning the kitchen and dining-room topsy-turvy in the operation. Some men can, and do, accomplish such work, and even make biscuits, griddle cakes, and the like. A woman whose husband is in the habit of "taking hold" when needed in housework, has been heard to say that she would rather have him to depend on in case of indisposition, or other emergency, than any girl that could be hired. He does not interfere when there is no cause for it, but he saves labor for his wife and expense for himself, and he is not at all ashamed of doing it, nor afraid to undertake it. No man need be; rather any man should be ashamed of unwillingness, and should regret inability to perform any ordinary household task on occasion.—*Good Housekeeping.*

Preliminary Announcement—Mechanics' Institute Fair.

The Board of Trustees of the Mechanics' Institute announce that the Twenty-fourth Industrial Exposition will open at the Pavilion on Larkin street on Tuesday, August 27th, 1889, and close Saturday evening, October 5th, 1889, and respectfully solicit contributions in every Department of Invention, Industry, Art, and the natural resources of this Coast.

Medals of gold, silver and bronze, with an elegant engraved diploma, will be awarded to such articles as may be found to merit special distinction, and competent jurors will be appointed to examine and report on the same, unless the owner shall, at the time of their reception give notice that they are for exhibition only.

The Department of Machinery will be enlarged and specially prepared for machinery in motion, for which ample steam and power will be furnished, including water.

By the easy approaches to the building, heavy goods can be conveniently handled, while all contributions can be quickly and inexpensively placed.

The Art Department will be specially attractive in oil and water color paintings, black and white, sculpture and photography.

A Musical Programme will be rendered each afternoon and evening by an orchestra of fifty eminent performers.

At night the building will be brilliantly illuminated with gas and electricity, and at all times everything possible will be done by the management for the comfort and convenience of visitors.

Inventors of new machinery or appliances will find this a rare opportunity to bring their improvements before the public for approval or sale.

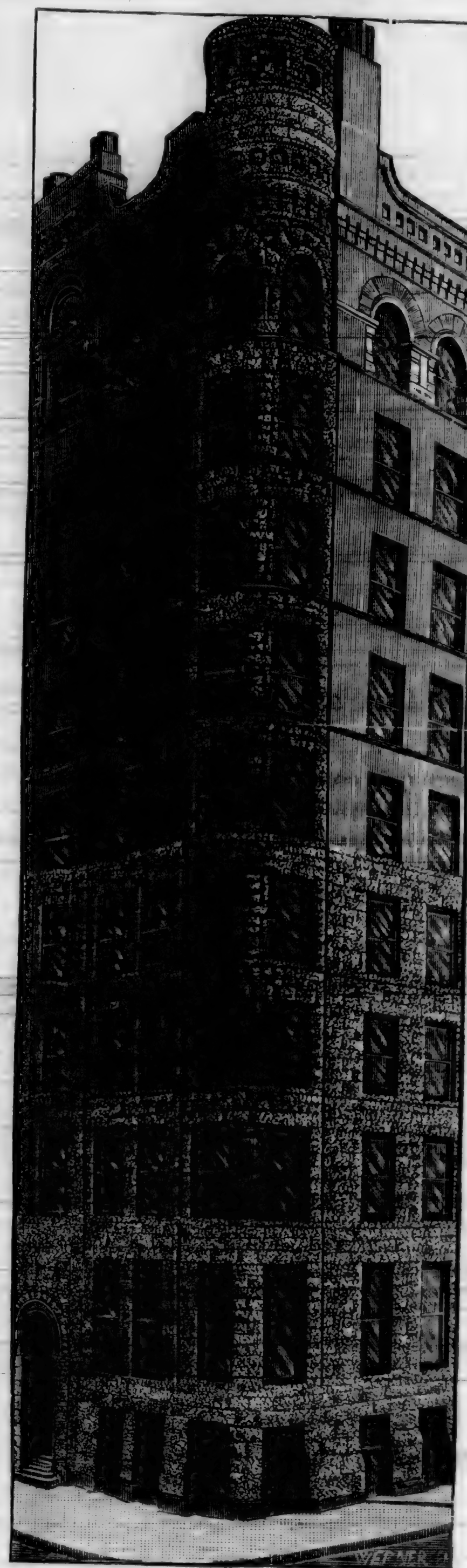
The value and advantages of these Fairs of the Mechanics' Institute to the Community and State is now unquestioned, as they disseminate information, and bring to the eyes and judgment of visitors the advancement, superiority and variety of the manufactures and products produced here.

A vast influx of desirable immigration may be expected to this State in the near future, owing to the great efforts lately made to illustrate our natural advantages, and the eyes and hearts of thousands of our fellow men eastward are longing for the west, and when they arrive, naturally go to these Expositions to examine for themselves what has been done and judge what may be accomplished.

You are earnestly requested to give the matter attention, as the managers greatly desire an exhibit from you this year. Aside from direct personal benefit, any one who places or exhibits specimens of his or her handiwork, does something that tends to establish an enlightened and prosperous population, extend practical knowledge, excite emulation, and add something to the greatness of the State, and benefit to the community.

A carefully revised Premium List is being prepared, and, with the Rules and Regulations, will be ready for distribution at an early day.

Any desired information will be promptly sent or given on application to the Assistant Secretary, No. 31 Post street



In our January issue we inadvertently made use of a wrong word in our description of the cuts presented. Only a word, and yet it caused quite a misunderstanding. We said, "the cuts were designed by C. Bryant Schaefer." We should have said *sketched* instead of *designed*. Plate 11, illustrating the "Old Colonial Style" was prepared by Mr. Schaefer expressly for the *CALIFORNIA ARCHITECT*. The others, for which credit is given to the gentleman named, should have read—sketched from the originals for presentation in this Journal. We are exceedingly sorry for the blunder made, and cheerfully, as far as in our power, release the gentleman named from any complicity in the matter. It was solely and wholly our own fault.