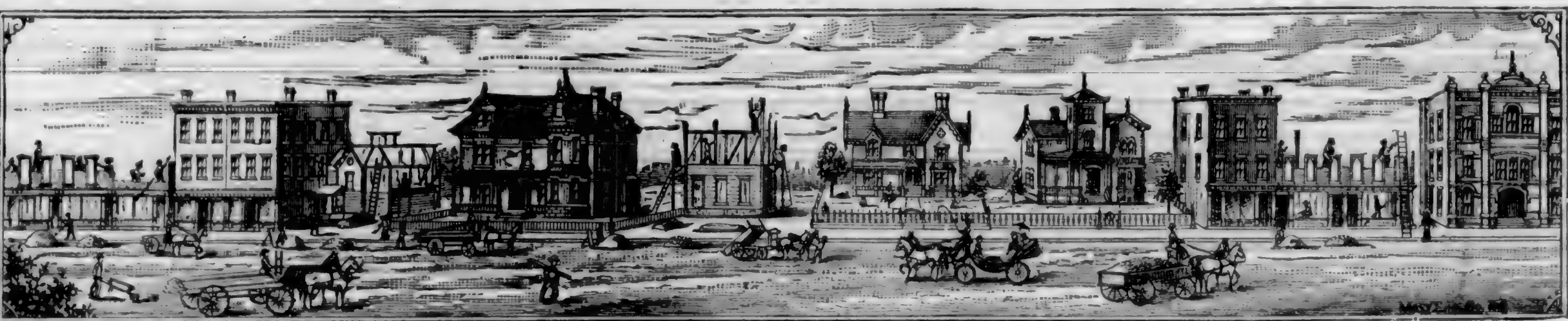


NATURAL GAS seems to partake, at least, of one of the qualities of the manufactured article. A plumber in the city of Indianapolis went hunting for a natural-gas leak with a lighted lantern. He found the place. Result—he had a large funeral, and some contractor will soon have the job of rebuilding the house in which the leak was located.

Modern Rural Homes.

A handsomely printed book, 7x11 inches, containing fifty-four plates of original designs in the latest modern architectural styles. The elevations are very picturesque. The book has been carefully prepared and is well worth the price set upon it, viz., \$2.



CITY BUILDING NEWS.

Alabama and Twentieth, one-story frame. Owner, P. B. Burns; architect, T. J. Welsh; contractor, G. Knopf; amount, \$1,800; sureties, Charles Williams & F. Kinkaid, \$1,000; limit, September 1, 1889; \$500, brown mortared; \$300, completed; \$800, 35 days; signed, June 18; filed, June 19.

Broadway and Clay, brick and carpenter work. Owner, W. S. Haney; architect, T. J. Welsh; contractor, Blake & Powers; amount, \$21,252; sureties, F. P. Rindan & J. J. McKinnon, \$10,000; signed, June 17; filed, June 24; limit, 4 months; \$3,000, foundation in; \$4,000 exterior studding up; \$5,000, brown mortared; \$4,000, white mortared; \$5,500, completed; \$5,340, 35 days.

Bush street, No. 1715, additions. Owner, S. Wangerheim; architect, J. E. Wolfe; contractor, E. S. Libby; cost, \$1,500.

Burnan near Twenty-Fifth, two-story frame. Owner, Mr. Aushok; cost, \$1,000.

Buchanan near Halght, additions to Protestant Orphan Asylum; contractor, G. H. Walker; cost, \$2,500.

Broadway near Larkin. Additions; cost, \$600.

Battery near California. Repairs to burned building; cost, \$2,500.

Brannan, between Second and Third, move, etc. Owner, James N. Kilgus; architect, M. C. H. contractor, Wm. McDonald; amount, \$8,045; limit, 70 days; signed, June 11; filed, June 15; 75 per cent, as work progresses; balance, 35 days.

B roadway near Franklin, three-story frame. Owner, Gustav L. Spear; architects, Huernie & Everett; contractor, James Campbell; cost, \$5,000.

B roadway, No. 327, two-story building. Owner, Mr. Czechosla; architect, A. C. Rogers; amount, \$1,900; signed, June 26; filed, June 30; payments made as needed, balance when completed.

B roadway and Franklin, three-story frame. Owner, Gustav L. Spear; architects, Huernie & Everett; contractor, James Campbell; cost, \$4,505; signed, June 24; filed, July 1, \$1,148.75; sheathed; \$1,148.75, brown coated; \$1,148.75, completed; \$1,148.75, 35 days.

Capp and Twenty-Third, two-story frame. Owner, Isabella McCormick; architect, John J. Clark; contractor, Richard Doyle & Son; amount, \$2,398; sureties, P. F. Ward and Thos. Winters, \$2,000; signed, June 24; filed, June 25; \$700 brick work completed; \$800 brown mortared; \$700 inside finish done; balance, 35 days.

Clay, near Scott, building. Owner, Victor R. Ullman; architects, Salfeld & Kohlberg; contractor, Fritz & Kean; amount, \$1,200; signed, June 13; filed, June 14; \$600 framed; \$500, white coated; \$1,200, completed; \$1,100, 35 days; signed, June 4; filed, June 4.

Clay, near Scott, painting, etc. Owner, Victor R. Ullman; architects, Salfeld & Kohlberg; contractor, George Besthorn; amount, \$200; \$100, ready for grainer; \$100, completed; \$95, 35 days; signed, June 6; filed, June 6.

Connecticut and Napa, one-story cottage. Owner, John Culhane; architect, T. F. Mitchell; contractor, Timothy Sullivan; amount, \$1,150; sureties, F. Joost and W. Thyark, \$1,000; signed, June 12; filed, June 13. \$287.50 framed; \$287.50 brown mortared; \$287.50 accepted; \$287.50, 35 days.

Ca'toreia and Kearny, brick and iron building. Owner, F. G. Merchand; architect, G. H. Day; contractor, Peter Cronin; amount, \$54,070; signed, June 27; filed, June 27; \$5,500 walls up to second story; \$4,000 walls up to third story; \$4,500 brown mortared; \$2,000 white mortared; \$2,000 completed; balance, 35 days.

Clinton Park and Guerrero, two houses. Owner, Henry Hoffman; architect, Geo. Houston; contractor, Geo. Houston; amount, \$5,370; limit, 100 days; signed, June 25; filed, June 26; \$1,465 enclosed; \$1,465 brown coated; \$1,165 white coated; \$1,475, 35 days.

California and Baker, carpenter work. Owner, Francis Crofte; architect, A. J. Barnett; contractor, C. N. Smith; amount, \$4,340; surety, Frank P. Latson, \$2,000; limit, 20 days; signed, June 14; filed, June 15; \$1,100, roof boards on; \$300 brown coated; \$900, white coated; \$750 completed; \$1,080, 35 days.

Clay, between Cherry and First, two-story dwelling. Owner, Thomas Langford; architect, John Gashi; contractor, Jesse Rickard; amount, \$3,220; signed, April 25; filed, June 29; \$400 shingled; \$400 brown mortared; \$400 white mortared; \$400 white coat of paint on; \$400 completed; \$437 accepted; \$313, 35 days.

California near Gough, two-story frame. Owner, B. A. Becker; architect, W. Mosser; contractors, Norton & Perry; cost, \$14,000.

California and Gough, to build. Owner, B. A. Becker; architect, Wm. Mosser; contractors, Norton & Perry; amount, \$9,500; sureties, A. W. Starbird and R. Goldstone, \$5,500; signed, June 10; filed, June 11; 75 per cent of work done; balance 35 days.

Clay near Scott, plumbing, etc. Owner, Victor R. Ullman; architects, Salfeld & Kohlberg; contractor, Fritz & Kean; amount, \$368; signed, June 4; filed, June 6; \$150 rough work in; \$218 completed.

Devisadero and Geary, three-story frame. Owner, John Friesenhausen; architect, Emil John; contractor, Fritz & Kean; amount, \$4,400; signed, June 13; filed, June 14; \$600 framed; \$800 partitions set in; \$800 white coated; \$900 accepted; \$1,100, 35 days.

Douglas and Eighteenth, one-story frame. Owner, Jos. Oswald; contractor, August Disher; amount, \$2,050; signed, June 18; filed, June 18; \$500, framed; \$500, first coat of plaster on; \$500, completed; \$550, 35 days.

Devisadero and Clay, alterations. Owner, Max Ordensstein; architect, J. Gashi; contractor, H. Griffin; cost, \$1,550; signed, June 13; filed, July 3; \$500, ready to plaster; \$500, plumbing done; \$250, completed; \$400, 35 days.

Dolores and Sixteenth, brick and carpenter work. Owner, P. W. Rindan; architect, T. J. Welsh; contractors, Blake & Powers; cost, \$8,083; sureties, J. F. Lynch and T. J. Ford, \$4,000; limit, 90 days; signed, June 17; filed, July 2; \$2,000, framed; \$2,000, brown mortared; \$2,000, white mortared; \$2,083, 35 days.

Ellis and Franklin, two three-story flats. Owner, A. F. Knopf; architect, Emil John; contractor, Daniel Chisholm; amount, \$12,900; signed, June 8; filed, June 12; \$2,000 framed; \$2,000 partitions set; \$3,000 outside finish on; \$2,675 accepted; \$3,225, 35 days.

Ellis near Franklin, two three-story frames. Owner, A. F. Knopf; architect, E. John; contractor, D. Chisholm; cost, \$17,000.

Ellis near Mason, brick, stone and iron work for a five-story brick and frame. Owner, C. M. Mason; architect, H. T. Beaton; contractor, John Wagner; amount, \$6,947; signed, June 22; filed, June 26; 75 per cent of value of work done as work progresses, balance of 25 per cent, 35 days.

Ellis and Franklin, plumbing and gasfitting. Owner, A. F. Knopf; architect, Emil John; contractors, Thos. Clark & Son; amount, \$1,468; signed, June 8; filed, June 12; \$500, rough work delivered; \$600, accepted; \$368, 35 days.

Ellis and Franklin, plastering. Owner, A. F. Knopf; architect, Emil John; contractors, Huntzmann & Harper; amount, \$1,790; signed, June 8; filed, June 12; \$375 rough mortar on; \$975 white mortar on; \$475 white mortar on; \$419, 35 days.

Ellis and Willow avenue, three-story frames. Owner, A. F. Knopf; architect, Emil John; contractors, John Quadi; amount, \$1,075; signed, June 8; filed, June 14; \$400, ready for graining; \$400, accepted; \$275, 35 days.

Ellis near Mason, three-story frame building and basement. Owner, H. Matthews; architect, H. T. Beator; contractor, C. E. Mason; amount, \$23,330; signed, June 24; filed, June 25; \$2,500 brick walls up; \$2,500 framed; \$2,500 floor-laid; \$3,500 brown mortared; \$3,500, white mortared; \$1,590 completed; \$8,340, 35 days.

Folsom and Second, elevator work. Owner, Boyd & Davis; architect, J. M. Curtis; contractor, Calhoun & Hall; amount, \$4,405; limit, 90 days; signed, May 21; filed, June 12; \$500 elevators are sunk full depths; \$550 casings and elevator heads are in and guide posts up; \$550 ready to deliver, balance, 35 days.

Fillmore and Broadway, addition. Owner, C. R. Sanders; architect, H. D. Mitchell; days work; cost, \$4,000.

Fell and Devisadero, plumbing, etc. Owner, J. B. Mering; architect, W. A. Winterhalter; contractor, John Boh; amount, \$325; \$400, rough pipes in; \$425, completed; signed, June 4, filed, June 4.

Fifth near Harrison, additional story; cost, \$850.

Fourth corner Minna, three-story and basement, brick. Owner, M. A. Hampton; architect, C. J. I. Devlin; carpenters, Moore Bros.; masons, Richardson & Gale; cost, \$35,000.

Green, between Buchanan and Webster, to build complete. Owner, Harry W. Tuckey; architect, S. W. Hegenway; contractor, John Dyar; amount, \$3,260; sureties, Jon Peers and J. Mulver, \$800; limit, 161 days; signed, May 23; filed, June 26; 75 per cent on first day of each month, balance, 35 days.

Geary and Laguna, four frames. Owner, I. R. Hall; architect, Geo. E. Voelkel; contractor, F. Klatt; amount, \$25,000; sureties, F. Joost and George T. Shaw, \$25,000; signed, June 6; filed, June 27; \$2,000 first story joists on; \$2,000 on; \$2,000 second coat of plaster on; \$3,000 ready to paint; \$2,000 accepted; \$10,000, 35 days.

Gough and Clay, to build. Owner, C. A. Belden; architects, T. E. Mathews & Son; contractor, R. P. Hurlbut; amount, \$10,500; signed, June 6; filed, June 12; \$1,575, one-fifth done; \$1,575, two-fifths done; \$1,575, three-fifths done; \$1,575, four-fifths done; \$1,575 completed; \$2,925, 35 days.

Gough near Clay, two-story frame. Owner, C. A. Belden; architect, W. J. Mathews; contractor, R. P. Hurlbut; cost, \$12,000.

Golden Gate avenue and Webster street, three-story frame. Owner, Geo. Schaefer; architect, H. Geilfuss; contractor, L. M. Weissmann; cost, \$11,625; signed, July 2; filed, July 3; \$14,000, framed; \$1,450, roofed; \$1,450, partitions set; \$1,450, brown coated, etc.; \$1,450, inside finish on; \$1,450, completed; \$2,925, 35 days.

Golden Gate avenue and Lott street, two-story frame. Owner, Wm. Stafford; architect, John J. Clark; contractor, R. R. Thornton; cost, \$4,454; limit, 60 days; sureties, Harris & Jones, \$2,576; signed, June 28; filed, July 2; \$600, framed; \$600, brown coated; \$600, inside finish done; \$654, 35 days.

Green and Fillmore, carpenter work, etc. Owner, Emma V. Foote; architect, Samuel Newsum; contractor, R. M. Murray; cost, \$7,550; signed, June 28; filed, July 3; \$1,132.50, framed; \$1,132.50, roof-d; \$1,132.50, brown coated; \$1,132.50, outside primed; \$1,132.50, two-story frame; \$1,387.50, 35 days.

Howard near Fourteenth, two-story frame. Owner, M. J. Kahn; cost, \$5,000.

Hayes street, No. 714, additions. Owner, C. Klopstok; architect, Curlett & Cuthbertson; contractor, Ingerson & Gore; amount, \$2,550; signed, June 14; filed, June 18; 75 per cent to be paid according as work is done, balance, 35 days.

Howard and Tenth, two tanks in Engine house. Owner, Omnibus Cable Company; contractor, J. C. Lamson; amount, \$325; limit, August 1, 1889; signed, June 15; filed, June 18; 75 per cent on completion, balance 35 days.

Hickory avenue, between Laguna and Octavia, frame building. Owner, J. W. Sims; architect, W. R. Sims; contractor, Henry Eldebutle; amount, \$1,615; limit, July 1; signed, April 24; filed, June 29; \$200 outside on; \$100 brown coat d; \$175 windows hung, etc., balance completed, also weekly payments \$3.00 per day for each man on the work, until completed.

Hermann and Webster, two-story frame. Owner, Jacob Dohlsner; architect, A. J. Barnett; contractor, John Farnes; amount, \$3,785; surety, Frank P. Latson, \$2,000; limit, 5 months; \$741, roof boards on; \$700, brown coated; \$700, white coated; \$700, completed; \$947, 35 days; signed, June 1, filed, June 3.

Howard and Tenth, raising and glazing. Owner, Estate James Lick; architects, Wright and Sanders, contractors, Fraser & Keefe; amount, \$2,406.75; 75 per cent, to be paid on first day of each month as work progresses; balance, 35 days; signed, May 6; filed, June 8.

Howard, between Fourth and Fifth, plumbing, etc. Owner, J. F. Boyd; contractor, C. K. Calman; amount, \$2,375; \$363.75, pipes in; \$592.15 rough plumbing in; \$568.75, finished; \$592.15, 35 days; signed, May 25; filed, June 4.

Howard and Seventeenth, three-story frame. Owner, Wm. Dyar; architect, M. J. Welsh; contractor, John Robertson; cost, \$4,300; signed, July 29; filed, July 3; \$1,000, fr.-m-d; \$1,100, brown mortared; \$1,100, completed; \$1,100, 35 days.

Howard near Shotwell, two-story frame. Owner, F. W. Runge; architect, H. Geilfuss; contractor, H. J. Weiss; amount, \$8,165; signed, June 28; filed, June 28; \$715 framed; \$715, roofed; \$715, partitions set; \$1,275 outside completed; \$1,275 inside finish on; \$1,275 comp eted; \$2,050, 35 days.

Larkin and Filbert, two two-story frames. Owner, Peter Scully; architect, Schmitt & Shia; contractor, John F. O'Brien; amount, \$7,175; sureties, J. Peaca & Geo. O. C. nad; limit, 100 days; signed, June 21; filed, June 22; \$1,345, framed; \$1,345, rough plumbing in; \$1,345, primed; \$1,345, completed; \$1,705, 35 days.

Layman near Jackson, brick and carpenter work. Owner, James P. Dunne; architect, A. J. Barnett; contractor, Richard McMan; amount, \$8,400; sureties, Behrend Jost, \$4,000; limit, 150 days; signed, June 22; filed, June 23; \$2,000 rough boards on; \$1,000 brown coated; \$1,500 white coated; \$1,000 outside finish up; \$345 completed; \$2,115, 35 days.

Leavenworth near Jackson, plumbing, etc. Owner, James P. Dunne; architect, A. J. Barnett; contractor, Fritz & Kean; amount, \$1,027; limit, 110 days; signed, June 22; filed, June 23; \$500 rough work done; \$260 completed; \$260, 35 days.

Lyon street, near Golden Gate avenue, one-story frame. Owner, Chas. C. Morris; architect, R. O. Chandler; contractor, R. O. Chandler; amount, \$2,200; signed, July 6; filed, June 14; \$300 framed; \$600 partitions set; \$500 white coat d; \$600, 35 days.

L Laguna, between Fell and Hayes, two two-story frames. Owner, Mr. Winkelmann; contract r, M. Goran; cost, \$5,500.

Laguna and Linden avenue, three-story frame. Owners, H. Winkelman and wife; contractor, M. J. G. rman; amount, \$2,323; signed, June 14; filed, June 15; \$1,000, framed; \$1,000, brown coated; \$1,000 outside finish up; \$973, white coated; \$1,000 completed; \$1,320, 35 days.

Leavenworth and Turk, to build. Owner, Mrs. A. A. Smith; architect, Wm. Mosser; contractor, J. J. Dun; amount, \$2,900; surety, F. cost; \$1,900; signed, June 1; filed, June 14; 75 per cent, work done; balance, 25 per cent, 35 days.

Lott and Golden Gate avenue, etc. Owner, H. Clancy; contractor, A. McDonald; cost, \$1,850; limit, 90 days; signed, July 1; filed, July 3; \$800, framed; \$800, ready to lay; \$800, brown coated; \$400, white coated; \$300, completed.

Market between Fourth and Fifth, galvanne d iron work. Owner, California Academy of Science; architect, Percy & Hamilton; contractor, Wm. Cronon; amount, \$5,170; sureties, Calvi Nutting and George Mahony; \$2,500; signed, June 7; filed, June 27; 75 per cent of value of work done on first Monday in each month, balance 35 days.

Market between Fourth and Fifth, painting, etc. Owner, California Academy of Science; architect, Percy & Hamilton; contractor, Paul Agn & amount, \$8,750; sureties, G. Am rip, i nter Bros. & Company, \$2,000; signed, June 7; filed, June 21; 75 per cent of value of work done on first Monday in each month, balance 35 days.

Montgomery and Commercial streets, concrete work. Owner, Davis Examiner Publishing Company; architect, J. Marquis; contractor, Geo. Goodman; amount, \$1,615; signed, June 17; filed, June 18; \$1,000, when finished, \$615 35 days.

M Allister and Laguna, a two, three-story flats. Owner, John Ewing; architect, Emil John; contractor, Tegeler & Muller; amount, \$8,950; signed, June 3; filed, June 12; \$2,000 framed; \$3,000 rough mortared; \$3,950, 35 days.

McAllister near Laguna, three, two-story frames. Owner, J. Ewing; architect, E. John; contractors, T-gel r & Muller; cost, \$10,000.

McAllister and Polk, excavation and stone work. Owner, J. E. Loneyan; architect, Wm. Mosser; contractor, Chas. in & Clatti; amount, \$7,000; signed, June 14; filed, June 24; 75 per cent of value of work done subject to main contract.

Mission corner Ninth, one two-story frame on Mission near Ninth and one on Ninth near Mission. Owner, Milbrae Dairy Co.; cost, \$5,000.

McAllister near Lyon, additions. Owner, F. P. Adams; architect, E. E. Henriksen; contractor, L. Helbing; cost, \$2,000.

Minnesota, between Solano and Butte, two-story frame. Owner, P. Trick Dixon; architect, Schmidt & Shea; contractor, Geo. J. Doering; amount, \$5,400; limit, 90 days; signed, June 24; filed, June 29; \$815 enclosed; \$815 brown coated; \$815 hard finished; \$815 completed; \$928, 35 days.

McAllister and Lyon, repairs, etc. Owner, Frank P. Adams; architect, E. E. Henriksen; contractor, Louis Helbing; amount, \$1,612; signed, June 15; filed, June 17; \$770 roofing and siding on; \$770, outside finished; \$72, sashes glazed and hung.

McAllister and Polk, carpenter work. Owner, A. P. Hotaling; architect, Wm. Mosser; contractor, J. B. Gonyean; amount, \$30,985; sureties, C. A. & G. W. Hooper, \$20,000; signed, June 18; filed, June 17; \$6,000, first story joists on; \$6,000, enclosed; \$6,000, rear platforms up; \$6,000, sashes hung etc.; \$6,000, completed; \$9,985, 35 days.

McAllister and Polk, plumbing, etc. Owner, A. P. Hotaling; architect, Wm. Mosser; contractor, John H. Lane; amount, \$1,900; sureties, J. Meyers & Mrs. L. B. McKeever, \$1,400; signed, June 13; filed, June 17; \$1,000 water and drains in; \$900, comp eted; \$900, 35 days.

McAllister and Polk, painting, etc. Owner, A. P. Hotaling; architect, Wm. Mosser; contractor, Henry Wagner; amount, \$1,900; surety, Jacob Weiss, \$1000; signed, June 13; filed, June 17; 75 per cent as work progresses, balance when completed.

Main, near Howard, excavating, brick work and sewer. Owner, S. Mathews; contract r, J. McCarthy; amount, \$2,300; limit, 40 days; signed, June 24; filed, June 25; 75 per cent, as work progresses; balance, 35 days.

Mission between Eighteenth and Nineteenth, one-story building. Owner, C. Gerdes; architect, W. H. Armitage; contractor, F. V. Steinman; amount, \$1,600; surety, Frank P. Latson, \$1,000; limit, 60 days; signed, June 18; filed, June 25; \$400, framed; \$400 brown coated; \$400 completed; \$400, 35 days.

Natoma, between Lafayette and Eleventh, one-story frame. Owner, Dennis Sweeney; architect, C. Peterson; contractor, C. Peterson; amount, \$1,175; limit, 60 days; signed, June 25; filed, June 29; \$241.25 chimney up; \$241.25, brown mortar on; \$241.25 completed; \$241.25, bills paid.

O k a d Octavia, two-story frame. Owner, Peter Craven; architect, M. J. Welsh; contractor, Rufus Parker; amount, \$4,570; signed, June 10; filed, June 12; \$32.50 framed; \$32.50 outside finish on; \$32.50 completed; \$32.50, 35 days.

Oak near Octavia, two-story frame. Owner, Peter Craven; architect, M. J. Welsh; contractor, R. Parker; cost, \$1,200.

Octavia and Sutter, plumbing. Owner, James G. Fai; architect, Schulze & Meeker; contractors, Fritz & Kean; amount, \$2,200; surety, John J. Mahoney, \$2,500; limit, Nov. 1, 1889; signed, June 10; filed, June 18; first day of each month 75 per cent, as work progresses; balance, 35 days.

Pacific, between Leavenworth and Hyde, alterations. Owner, Thomas Kennedy; architect, W. H. Armitage; contractor, J. W. Sims; cost, \$2,800.

Pacific, between Montgomery and Sansome, reconstruction of engine house. Owner, city of San Francisco; contractors, McCann and Riddell; cost, \$8,550.

Parker Avenue near Fulton street, two-story frame. Owner, J. D. Wils n; architect, H. T. Beator; contractor, R. P. Tracer; amount, \$5,450; limit, Oct. 1, 189; signed, June 12; filed, June 27; \$550 r-tic on to first story; \$730 brown coated; \$550 white coated; \$550 completed; \$870, 35 days.

Pierce near Page, mill work. Owner, R. H. White; sub-contractors, F. V. Steinman and Michael McCloskey; amount, \$1,600; signed, June 24; filed, June 27; 75 per cent of value of work as is delivered, balance, 25 per cent, 35 days.

Pacific and Gough streets, two-story frame. Owner, Louise S. Beyer; architect, M. G. Buehler; contractor, O. E. White; amount, \$3,500; sureties, Chas. F. & Frank P. Doe; limit, 100 days; signed, June 17; filed, June 18; \$1,625, enclosed; \$1,625, brown mortar is on; \$1,625, completed; \$1,625, 35 days.

Pierce and Page, two two-story frames. Owner, Michael McCloskey; architect, R. H. White; contractor, F. V. Steinman; amount, \$2,500; sureties, Frank P. Latson & John Diemer, \$2,000; limit, 90 days; signed, June 17; filed, June 19; \$1,100, framed; \$800 framed; \$1,347 50; brown coated; \$1,087 50 standing finish is on; \$1,700, completed; \$2,390, 35 days.

Polk and Washington, three-tenements and two stores. Owner, Alexander Ferran; architect, Wm. H. Wharf; contractor, Hiram G. Hatch; amount, \$6,500; sureties, A. A. Moore, \$2000; limit, September 1, 1889; signed, June 3; filed, June 17; \$975, brick work completed; \$975, framed; \$975, enclosed; \$975 white mortared; \$975, completed; \$975, 35 days.

Pacific street, No. 1338, alterations, etc. Owner, Thos. Kennedy; architect, A. G. Buehler; contractor, J. W. Sims; amount, \$2,550; sureties, Dennis Jordan; limit, 30 days; signed, June 6; filed, June 8; 75 per cent, as work progresses, balance 35 days.

Pacific and Pierce, two-story frame. Owner, Simon Anspacher; architect, Samuel Newsum; contractor, George R. Lang; amount, \$7,550; surety, Frank P. Latson; limit, 120 days; signed, June 14; filed, June 19; \$1,132 50 frame up; \$1,132 50, roof or; \$1,132 50, brown mortared; \$1,132 50, outside primed; \$1,132 50, completed; \$1,887 50, 35 days.

Post and Pierce, two-story building. Owner, Daniel Catter; architect, Chas. John & Balcerzanski; contractor, D. G. Chisholm; signed, July 1; filed, July 2; cost, \$4,100; \$800, framed; \$1,200 outside finished; \$1,075, completed; \$1,025, 35 days.

Sutter and Lyon, two-to-y frame and alter old one. Owner, Annie R. Mc N. Kavanagh; architect, S. Hatfield; contractor, R. P. Sanchez; amount, \$5,700; surety, J. Wagner, \$1,500; signed, June 14; filed, June 15; \$600, framed; \$475, roof tight, etc.; \$475, plastered; \$475, completed; \$675, 35 days.

COUNTRY BUILDING NEWS.

SEATTLE.

The work of rebuilding is pushed with energy. We are indebted to the *Post-Intelligencer* for the report of work now in progress.

McNaught Bros., have engaged architect Boone, to prepare plans for a brick building to be erected by them on their property in the south east corner of Jackson and South Sixth streets. The ground floor will be divided into five stores with entrance on Jackson street. The three upper floors will be cut up in flats, and rented for tenement purposes. The building will be erected of brick, iron and stone, and work will begin as soon as plans are completed.

Mr. Sanderson is having plans drawn for a building to be erected on his property on Yesler avenue, between Commercial and South Second street. The building will be three stories high with basement. Work will commence on excavation for the basement at once.

Mr. J. Kenyon states that he will erect a brick building on his property on Commercial street, between Washington and Main. He will probably be joined by Messrs. McNaught and W. H. Maul, who own adjoining property.

The Gordon Hardware Company is preparing to go ahead with the construction of its building on its old site on Front street.

T. R. Hill has a force of men excavating on the site of the Oakland lodging house, on Commercial street, near Main. It is his purpose to erect a three-story brick, as soon as street lines and grade elevations are established by the council.

Mr. Chris Sherman will build on his property, situated on the northeast corner of Front and Cherry streets, as soon as the debris can be removed and the excavations made. The building will be built of brick, iron, stone and terra cotta, and will be a model structure. The dimensions are 60x120 and it will be three stories in height. The lower floor will be divided into two stores.

Fisher, the architect, has about completed the plans, and the building will be completed inside of four months. The estimated cost is \$30,000.

Architect Boone has completed plans for a frame building to be erected on the south side of Washington street, between South Sixth and Seventh streets, by Mr. S. Baxter. The building will be 60x120 feet in dimensions, and four stories in height. There will be three stories on the ground floor. The three upper floors will be divided into sixty rooms, for tenement purposes. Plans are also completed for a building identically the same in proportion, and to be used for the same purpose, which will be erected by Mr. S. Baxter on the east side of Front street, between Virginia and Lenora streets. These buildings will be put up at once.

The excavations for the Gny C. Pinney building on the northeast corner of Front and Seneca streets, are completed, and work on the building will commence to-day.

Architect Boone is preparing plans for rebuilding the Wah Chung building, situated on the north, east corner of South Third and Washington streets. The dimensions of the building as it

formerly stood, were 60x45 feet. It will now cover 60x111 feet of ground and will be as originally, two stories high with a basement.

Whittier, Fuller & Co., will erect a building to cost \$75,000.

On corner of Cherry and Third, Mr. Dexter Horner will erect a four story brick building. Architect Boone has the plans about ready for same. Cost, \$90,000.

Judge J. R. Lewis will erect a \$20,000 building on Front street. Architect Nestor is preparing plans.

Engle & McElroy will have a \$25,000 building erected from plans prepared by architect Nestor. Architect E. H. Fisher is preparing plans for a four-story building for Mrs. L. A. Starr.

G. W. Young will erect a \$10,000 building, the plans of which are being prepared by architect Nestor.

A Catholic church will be built at a cost of \$25,000. Branigan and Ryan have the contract.

Architect Larkin has plans ready for a \$6,000 building, for Mrs. M. A. Foster.

Architect Thomas will soon let contract for three houses for Mr. Glenn. They will cost \$9,000.

SAN JOSE.

J. Lensen & Son are preparing plans for a three story brick and stone building for C. T. Ryland.

Two-story brick and frame business block. San Antonio between Third and Second streets. F. H. Trope, owner; J. Lensen & Son, architects; Fuller & Cross, contractor; cost, \$5800.

One-story cottage in the Devendorf Addition. C. Warfield, owner; F. Davis, contractor; cost, \$1710.

Two-story dwelling on the Davis tract. Prof. Cox, owner; Hazard & Lyth, contractors; cost, \$2000.

Cottage in the Willows. Mr. Fleming, owner; Shottenhamer, contractor; cost, \$2200.

Additions to a dwelling on Third street. Mr. McCabe, owner; J. Lensen & Son, architects.

Dwelling on Fourth near Jackson street. A. Berryessa, owner; J. Lensen & Son, architects; A. C. Bates, contractor; cost, \$1100.

Dwelling house on Willow street. Mr. Ross, owner; Shottenhamer, contractor; cost, \$1800.

Dwelling house on Vine street. M. Lensen, owner; J. Lensen & Son, architects; E. A. Van Dalsem, contractor; cost, \$3000.

Two-story dwelling, Fifth near San Salvador street. Mrs. Burdett, owner; W. S. Boyles, contractor; cost, \$3500.

Dwelling house corner Fourth and Reed streets. O. L. Bennett, owner; built by day work; cost, \$3500.

ALAMEDA.

J. A. Leonard will erect three more dwellings on corner of Chestnut and Encinal avenue.

R. W. Mastick has let contract for a \$4000 house to be built on St. Charles street.

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Miss A. B. Karr, is having built by days work, a large double house to cost about \$8000. S. Hatfield, of San Francisco, prepared the plans.

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Mr. Thatcher intends to erect a \$10,000 hotel. I. J. Ludwig of Santa Rosa has the contract.

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Mr. Perry is having a neat house erected in the eastern portion of town.

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A \$3010 hospital building will be erected. J. Morton of Calistoga has the contract.

SACRAMENTO.

It is understood that the firm of Lubin & Weinstock will erect a five story brick building.

PORTERVILLE.

C. K. Kirby, architect, of Fresno, has plans finished for a block of stores for Lawrence Barrett.

HAYWARDS.

Daniel Luce is having erected a two-story brick building.

SANTA ROSA.

Mrs. Geo. Kennedy is having a residence built near town. Kuykendall & Nelson are the contractors.

BERKELEY.

A. H. Broad has been awarded a contract for building two residences.

W. W. Rednow will have erected for himself a \$5,000 dwelling.

REYNOLDS & ADAMS,

547 Brannan Street,

Hardwood Flooring,

Parquet Floors,

Wood Carpets,

—AND—

ENGLISH TILE FLOORS.

Designs and Estimates furnished on application.

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—PUBLISHED BY THE—

California Architectural Publishing Co.

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ADVERTISING RATES FURNISHED ON APPLICATION.

SAN FRANCISCO, AUGUST 15, 1889.

It is not often that trade journals pay attention to matters entirely out of the line for which said journals were established. In the issue of July 27th, of the *American Architect*, will be found a very able editorial in regard to the late trouble in this City between the Musician's Union and the Military Authorities. It says:—"The Trades Union in San Francisco came into a collision with a force which they will probably find less amiable and easy of circumvention than the civil law. The 4th of July Committee offered \$6 00 per day for each musician, instead of \$8 00, the amount paid on previous occasions. The Musician's Union thereupon issued orders that none of its members be allowed to play on that day. It happened, however, that among the musicians who were expected to take part, were the members of the three regimental bands, who, although they belonged to the Musician's Union, were regular enlisted men in their several regiments of militia. Upon their failure to appear for duty, the colonels of their regiments took up the code of militia regulations to inquire into the duty of enlisted musicians. As the officers concisely put the case "If some new military body has more power over any part of the military force stationed in San Francisco than the commander-in-chief, it is a better time to learn it now than to wait till an emergency arises, and they or other similar societies array themselves against the law and the officers appointed to administer the same." The *American Architect* thinks a salutary example should be made of the first offenders for so gross a military fault.

(The findings of the Court Martial were very much in keeping with the spirit of the above extract, as the leaders were dishonorably discharged and a fine imposed, besides. Appeal, however, is being prepared for executive clemency.—Editor *California Architect*.)

VALUE of sunshine.—A physician in New York reports, that during an epidemic of diphtheria in that city, there were five times as many cases on the shady side of the street as on the sunny side.

COMPETITION in laying artificial stone pavements has brought about the usual result. Low prices means the use of poor materials, not only in pavements, but in every thing else. Years ago, when cement sidewalks were first laid, people were slow to believe that they would last a quarter of a century and show but little wear from the thousands passing over them. Yet, there are pavements that have been used half of that time, on one of the most traveled portions of Kearney street, and the noticeable wear would not average an eighth of an inch. At that time, we believe, the price was about twenty cents per square foot. Numerous patents were taken out for various ways of laying the artificial stone pavement, and then the competition began. The price was reduced to 15 cents; then by one half of a cent at a time, down to 13 cts. This price was regarded as the very lowest that it was possible to lay a pavement. But still competition cut under that figure and walks have been laid as low as 10 cents a square foot. One enterprising individual on Market street, just below Sixth, used ashes instead of gravel in making the concrete bed. With a great flourish he proclaimed that his patent excelled them all, and \$20,000 was wanted for the same for this city alone. It was but a few months after being laid, that the utter worthlessness of ashes instead of gravel was thoroughly proven, and a short time ago, it was necessary to replace the sidewalk entirely. It is so every time. Grind the price down to 10 cents, and you will have a 10 cent sidewalk. All over the city, sidewalks are crumbling to pieces that have been laid but a short time, many of them less than a year; while those put down by such men as Geo. Goodman, E. L. Ransome and a few others, have stood the test of more than 10 years, and the walks are as good to-day as when first laid. If property owners would consider that there is but \$20 difference between a first class job and a 10 cent sidewalk, that one will last an ordinary lifetime, and the other but a few years, surely it would seem that no hesitation should be shown in choosing the better article. It is absolutely impossible to lay a good pavement at 10 cents, or even 12 cents, per square foot, and use gravel and cement as they should be used. Note how the cheap walks are laid. Gravel is used in the proportion of 1 part gravel and about 2 parts of earthy matter, the presence of which utterly precludes a good concrete for the foundation. Even with this cheap mixture, the contractor seeks to get off by making it not over an inch and a half in thickness. On top of this, a mixture of sand and cement is placed, and then the top is merely washed with a thin coating of cement. In one year the sidewalk is useless and people begin to condemn the cement sidewalk. Let owners figure on 15 cents per square foot for their pavements, give the laying of them to responsible parties only, and our word for it, they will never regret the difference in cost.

So far the proceedings of the International Congress of Architects, whose sessions were held in Paris, commencing June 17, do not amount to much. A paper was read by M. de Baudot, the subject of which was "Teaching of Architecture." The views taken by the speaker, according to the *American Architect*, were unfavorable to the system pursued at the Ecole des Beaux-Arts, and he argued very effectively in favor of a more practical training for young architects, which should remove from them the reproach of being able only to make handsome water-color drawings. After the paper was read, considerable discussion ensued, the opponents of M. de Baudot's views being in a decided majority. By a little sharp practice, the Convention finally dodged the issue with great discretion, by adopting a resolution to refer the matter to the next Convention which is not likely to be held for another ten years, at least.

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San Francisco Chapter American Institute of Architects.

The regular monthly meeting of the Chapter was held in their rooms, 408 California St., on Friday, August 2d. W. P. Moore occupied the chair. There was a very good attendance of the members.

The following named were nominated for officers for the ensuing term: President, Seth Babson; Vice-President, G. W. Percy, W. J. Cuthbertson, W. P. Moore; Secretary, O. Everett; Treasurer, J. M. Curtis; Trustees, Wright, Pissis, Percy, Gash, Bestor, Moore.

Applications for membership were received from D. L. Williams and F. Williams, both of Portland, Oregon.

An amendment was offered to the By-Laws by which the night of meeting is to be changed to the second Friday of the month.

The members of the Technical Society were invited in from their meeting room to listen to a paper read by John Gash, entitled, "THE STONE AGE." The paper was well received by those present, and an interesting discussion ensued in regard to stone and the causes that lead to its deterioration.

The thanks of the Chapter were extended to the speaker for his able address.

The Mechanics' Fair.

ARRANGEMENTS are in active progress for the opening of the Mechanics' Fair on the 27th of the present month. It will last to October 5th. From the extent of the preparations made, the next exhibit will be superior to any its predecessors. We are in hopes that the exhibit of building materials, finished as well as raw materials, will be such as to command the attention of strangers. We understand the Chapter of Architects have a committee on this subject, who are working harmoniously with committees from other associations, and we trust their efforts will be successful. Especially is it desired to have a complete line of building stone from the various quarries all over the coast. These should be accompanied by a certificate of chemical analysis from some well known assayer or chemist. Mechanics should show what they can do and the one who produces the longest thick shaving, and the longest thin shaving should each be entitled to a medal. We will give our customary review of all articles connected with the building interests.

A Dwelling House Elevator.

VERY few people like to climb stairs. If such a thing were possible and practical as an elevator in an ordinary private house, costing to erect and operate not so much as to put it beyond the means of an average house-owner, it would undoubtedly be a boon. A Berlin inventor has proposed a plan of "a simple and inexpensive elevator for private dwellings," which is worthy of mention. It is on the principle of the inclined railway, and the motive power is furnished by the city water, which is applied in the cellar; each flight has its separate chair, so that, for example, one person can ascend from the first to the second story while another is on his way from the second to the third, or still another is descending from the fifth to the fourth. The chair, being only the width of a human body, requires but little space, and still leaves a free passage for any who wishes to walk up or down, instead of riding. It is set in motion by a simple pressure upon one of its arms, while after it has been used it slides back to the bottom step, its descent being regulated in such a manner that the carrying of a passenger is a matter of entire safety. The motive power is, of course, more or less expensive, according to the cost of water, this being, it is stated, in Berlin at the rate of a little more than one-tenth of a cent only for each trip.

They have a fire-brick trust in England. And yet Englishmen call this country the land of monopolies and trusts. Those who live in glass houses should not throw fire bricks.—*Western Architect and Building News.*

Away From Home for News.

AN extract from the *North-Western Lumberman* will be interesting reading to those on this coast connected with the interests represented. Truly we have to go away from home for news, but, in this case, the news is a series of mistakes:

"Pacific coast lumbermen have been behind the times in some respects, but they are beginning to adopt improved methods, and from now on they will doubtless manufacture and sell lumber to better advantage. The band saw is being established in that region, and the dry kiln is making its way. It seems singular that coast lumbermen should be so slow to adopt improvements demonstrated to be of great value in other parts of the country; but it is a fact that strong pressure was required to get the band saw introduced in the manufacture of redwood and fir lumber, and it is of comparatively recent date that the feasibility of drying redwood was recognized. About a year ago a few kilns were put in at Stockton, San Jose and other points, and a few months ago the first one was put in at San Francisco. Now they are going in quite numerous through California, Washington and Oregon. The advent of lumbermen from fields east of the coast has resulted in various innovations in operations, and continued improvements and increased energy may be looked for."

ETCHING SAW BLADES.—Please inform me how saw manufacturers do fancy etching on the sides of steel saws? How could I put on a lion's head, with my name around the same?—B. A., Toronto, Ont.

Answer.—Saw manufacturers have the design and lettering engraved first on a copper plate by a competent engraver, by usual methods. This is done so as to read the same as the finished saw in appearance (not reversed, as printing-plates are done.) One or more impressions are then taken on a copper-plate press, with an ink that has had added to it some bitumen, or acid-resisting resin with beeswax. These impressions should be made on a thin, even paper, and the ink is afterwards transferred from this print on to a polished steel plate. Diluted nitric acid being put on the steel, the general surface is etched away, so that the letters and ornamentation stand up in relief instead of being sunk, as they are in the copper plate. The steel plate is then cleaned off, and is printed from in like manner to produce impressions for transferring to the saws. These impressions have the letters and ornamentation white on a black ground. If several impressions of the copper plate are transferred to the steel plate side by side, and etched, then each sheet printed from the steel plate will supply several transfers, when cut apart, for use on as many saws, thus economizing labor very considerably. If any of the transfers on steel or saw should be incomplete—not thoroughly protecting the surface, some asphaltum varnish, or shellac varnish with a little lampblack in it, can be applied with a camel's hair brush to the bare parts, to make them safe. The transfers on the saws are then etched, though not so deep as the first transfer on the plate, and the result is a duplicate of the original copper plate, with black letters, etc. Care must be taken to neutralize any traces of acid remaining on the saws when they are cleaned off, to prevent rusting after they are laid away. If this inquirer desires to decorate but one saw for himself, he must use ordinary methods of engraving. Cover the saw with an asphaltum varnish, draw through that with a steel point, or etching needle, the design he wishes, and then apply diluted nitric acid (acid, 1 part; water 4 parts) with a feather or camel's-hair brush until the design is etched black enough to suit him; wash off with water, then with turpentine, and lastly with soda solution. He will probably find it difficult to draw his lines just as he wishes them over the coarse grinding of the surface of the saw. —*Manufacturer and Builder.*

Architectural Picture-Making with Pen and Ink.

This book is handsomely illustrated with 32 large plates in size 12 x 18 inches. We have copies of this work on sale, which will be furnished at publishers price, \$4.

Palliser's Quarterly for one year in conjunction with the *California Architect*, Price for the two \$4.



DESIGN FOR CITY DWELLING—HUERNE & EVERETT, Architects.

COUNTRY BUILDING NEWS.

SEATTLE.

The work of rebuilding is pushed with energy. We are indebted to the *Post-Intelligencer* for the report of work now in progress.

McNaught Bros., have engaged architect Boone, to prepare plans for a brick building to be erected by them on their property in the south east corner of Jackson and South Sixth streets. The ground floor will be divided into five stores with entrance on Jackson street. The three upper floors will be cut up in flats, and rented for tenement purposes. The building will be erected of brick, iron and stone, and work will begin as soon as plans are completed.

Mr. Sanderson is having plans drawn for a building to be erected on his property on Vesler avenue, between Commercial and South Second street. The building will be three stories high with basement. Work will commence on excavation for the basement at once.

Mr. J. Kenyon states that he will erect a brick building on his property on Commercial street, between Washington and Main. He will probably be joined by Messrs. McNaught and W. H. Maud, who own adjoining property.

The Gordon Hardware Company is preparing to go ahead with the construction of its building on its old site on Front street.

T. R. Hill has a force of men excavating on the site of the Oakland lodging house, on Commercial street, near Main. It is his purpose to erect a three-story brick, as soon as street lines and grade elevations are established by the council.

Mr. Chris Sherman will build on his property, situated on the northeast corner of Front and Cherry streets, as soon as the debris can be removed and the excavations made. The building will be built of brick, iron, stone and terra cotta, and will be a model structure. The dimensions are 60x120 and it will be three stories in height. The lower floor will be divided into two stores.

Fisher, the architect, has about completed the plans, and the building will be completed inside of four months. The estimated cost is \$30,000.

Architect Boone has completed plans for a frame building to be erected on the south side of Washington street, between South Sixth and Seventh streets, by Mr. S. Baxter. The building will be 60x120 feet in dimensions, and four stories in height. There will be three stores on the ground floor. The three upper floors will be divided into sixty rooms, for tenement purposes. Plans are also completed for a building identically the same in proportion, and to be used for the same purpose, which will be erected by Mr. S. Baxter on the east side of Front street, between Virginia and Lenora streets. These buildings will be put up at once.

The excavations for the Guy C. Phinney building, on the northeast corner of Front and Seneca streets, are completed, and work on the building will commence to-day.

Architect Boone is preparing plans for rebuilding the Wah Chung building, situated on the north east corner of South Third and Washington streets. The dimensions of the building as it

formerly stood, were 60x45 feet. It will now cover 60x111 feet of ground and will be as originally, two stories high with a basement.

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Additions to a dwelling on T McCabe, owner; J. Lensen & J. D. Stewart, contractor; cost, \$1000.

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Dwelling house on Willow owner; Shottenhamer, contractor; cost, \$3000.

Dwelling house on Vine street owner; J. Lensen & Son, and Dalsem, contractor; cost, \$3000.

Two-story dwelling, Fifth street. Mrs. Burdett, owner; V tractor, cost, \$3500.

Dwelling house corner Fourth O. L. Bennett, owner; built by \$3500.

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IRREGULAR PAGINATION

COMPETITION in laying artificial stone pavements has brought about the usual result. Low prices means the use of poor materials, not only in pavements, but in every thing else. Years ago, when cement sidewalks were first laid, people were slow to believe that they would last a quarter of a century and show but little wear from the thousands passing over them. Yet, there are pavements that have been used half of that time, on one of the most traveled portions of street, and the noticeable wear would not average an f an inch. At that time, we believe, the price was twenty cents per square foot. Numerous patents were t for various ways of laying the artificial stone paved then the competition began. The price was reduced to then by one half of a cent at a time, down to 13 cts. e was regarded as the very lowest that it was possible pavement. But still competition cut under that figure ts have been laid as low as 10 cents a square foot. One ing individual on Market street, just below Sixth, used lead of gravel in making the concrete bed. With a irish he proclaimed that his patent excelled them all, 000 was wanted for the same for this city alone. It a few months after being laid, that the utter worthlessness instead of gravel was thoroughly proven, and a e ago, it was necessary to replace the sidewalk entirely. very time. Grind the price down to 10 cents, and you a 10 cent sidewalk. All over the city, sidewalks are g to pieces that have been laid but a short time, many less than a year; while those put down by such men as dman, E. L. Ransome and a few others, have stood the ore than 10 years, and the walks are as good to-day as t laid. If property owners would consider that there is difference between a first class job and a 10 cent side- one will last an ordinary lifetime, and the other but a s, surely it would seem that no hesitation should be choosing the better article. It is absolutely impossi- a good pavement at 10 cents, or even 12 cents, per ot, and use gravel and cement as they should be used. the cheap walks are laid. Gravel is used in the pro- 1 part gravel and about 2 parts of earthy matter, the of which utterly precludes a good concrete for the n. Even with this cheap mixture, the contractor seeks by making it not over an inch and a half in thickness. this, a mixture of sand and cement is placed, and then s merely washed with a thin coating of cement. In the sidewalk is useless and people begin to condemn the idewalk. Let owners figure on 15 cents per square eir pavements, give the laying of them to responsible nly, and our word for it, they will never regret the in cost.

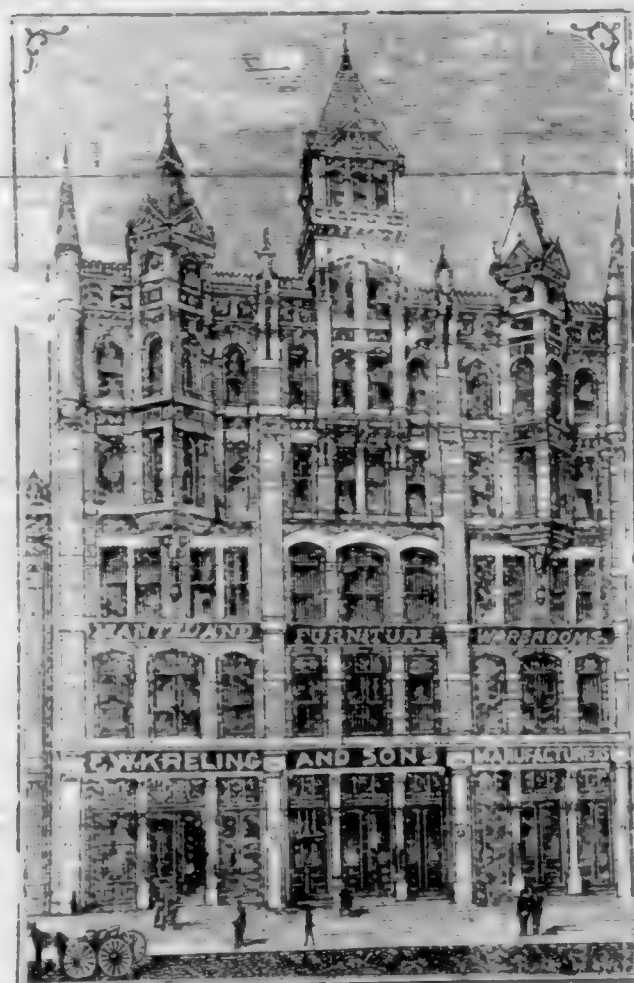
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Mr. Chris Sherman will build on his property, situated on the northeast corner of Front and Cherry streets, as soon as the debris can be removed and the excavations made. The building will be built of brick, iron, stone and terra cotta, and will be a model structure. The dimensions are 60x120 and it will be three stories in height. The lower floor will be divided into two stores.

Fisher, the architect, has about completed the plans, and the building will be completed inside of four months. The estimated cost is \$30,000.

Architect Boone has completed plans for a frame building to be erected on the south side of Washington street, between South Sixth and Seventh streets, by Mr. S. Baxter. The building will be 60x120 feet in dimensions, and four stories in height. There will be three stores on the ground floor. The three upper floors will be divided into sixty rooms, for tenement purposes. Plans are also completed for a building identically the same in proportion, and to be used for the same purpose, which will be erected by Mr. S. Baxter on the east side of Front street, between Virginia and Lenora streets. These buildings will be put up at once.

The excavations for the Guy C. Phinney building on the northeast corner of Front and Seneca streets, are completed, and work on the building will commence to-day.

Architect Boone is preparing plans for rebuilding the Wah Chung building, situated on the north east corner of South Third and Washington streets. The dimensions of the building as it

formerly stood, were 60x45 feet. It will now cover 60x111 feet of ground and will be as originally, two stories high with a basement.

Whittier, Fuller & Co., will erect a building to cost \$75,000.

On corner of Cherry and Third, Mr. Dexter Horner will erect a four story brick building. Architect Boone has the plans about ready for same. Cost, \$90,000.

Judge J. R. Lewis will erect a \$20,000 building on Front street. Architect Nestor is preparing plans.

Engle & McElroy will have a \$25,000 building erected from plans prepared by architect Nestor.

Architect E. H. Fisher is preparing plans for a four-story building for Mrs. L. A. Starr.

G. W. Young will erect a \$10,000 building, the plans of which are being prepared by architect Nestor.

A Catholic church will be built at a cost of \$25,000. Branigan and Ryan have the contract.

Architect Larkin has plans ready for a \$6,000 building, for Mrs. M. A. Foster.

Architect Thomas will soon let contract for three houses for Mr. Glenn. They will cost \$9,000.

SAN JOSE.

J. Lensen & Son are preparing plans for a three story brick and stone building for C. T. Ryland.

Two-story brick and frame business block. San Antonio between Third and Second streets. F. H. Trope, owner; J. Lensen & Son, architects; Fuller & Cross, contractor; cost, \$5500.

One-story cottage in the Devendorf Addition. C. Warfield, owner; F. Davis, contractor; cost, \$1710.

Two-story dwelling on the Davis tract. Prof. Cox, owner; Hazard & Lyth, contractors; cost, \$2000.

Cottage in the Willows. Mr. Fleming, owner; Shottenhamer, contractor; cost, \$2200.

Additions to a dwelling on Third street. Mr. McCabe, owner; J. Lensen & Son, architects. J. D. Stewart, contractor; cost, \$1200.

Dwelling on Fourth near Jackson street. A. Berryessa, owner; J. Lensen & Son, architects; A. C. Hates, contractor; cost, \$1100.

Dwelling house on Willow street. Mr. Ross, owner; Shottenhamer, contractor; cost, \$1800.

Dwelling house on Vine street. M. Lenzon, owner; J. Lensen & Son, architects; E. A. Van Dalsen, contractor; cost, \$3000.

Two-story dwelling, Fifth near San Salvador street. Mrs. Burdett, owner; W. S. Boyles, contractor; cost, \$3500.

Dwelling house corner Fourth and Reed streets. O. L. Bennett, owner; built by day work; cost, \$3500.

ALAMEDA.

J. A. Leonard will erect three more dwellings on corner of Chestnut and Encinal avenue.

R. W. Mastick has let contract for a \$4000 house to be built on St. Charles street.

Senator Stewart will build on Blanding avenue near Willow street.

Eugene J. Bates will build on San Antonio avenue. Pattiani & Co., have the contract.

MARYSVILLE.

Miss A. B. Karr, is having built by days work, a large double house to cost about \$8000. S. Hatfield, of San Francisco, prepared the plans.

HOPLAND.

Mr. Thatcher intends to erect a \$10,000 hotel. I. J. Ludwig of Santa Rosa has the contract.

PETALUMA.

Mr. Perry is having a neat house erected in the eastern portion of town.

YOUNTVILLE.

A \$3000 hospital building will be erected. J. Morton of Calistoga has the contract.

SACRAMENTO.

It is understood that the firm of Lubin & Weinstock will erect a five story brick building.

PORTERVILLE.

C. K. Kirby, architect, of Fresno, has plans finished for a block of stores for Lawrence Barrett.

HAYWARDS.

Daniel Luce is having erected a two-story brick building.

SANTA ROSA.

Mrs. Geo. Kennedy is having a residence built near town. Kuykendall & Nelson are the contractors.

BERKELEY.

A. H. Broad has been awarded a contract for building two residences.

W. W. Rednow will have erected for himself a \$5,000 dwelling.

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SAN FRANCISCO, CAL.



The * California * Architect * and * Building * News

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ADVERTISING RATES FURNISHED ON APPLICATION.

SAN FRANCISCO, AUGUST 15, 1889.

It is not often that trade journals pay attention to matters entirely out of the line for which said journals were established. In the issue of July 27th, of the *American Architect*, will be found a very able editorial in regard to the late trouble in this City between the Musician's Union and the Military Authorities. It says:—"The Trades Union in San Francisco came into a collision with a force which they will probably find less amiable and easy of circumvention than the civil law. The 4th of July Committee offered \$6.00 per day for each musician, instead of \$8.00; the amount paid on previous occasions. The Musician's Union thereupon issued orders that none of its members be allowed to play on that day. It happened, however, that among the musicians who were expected to take part, were the members of the three regimental bands, who, although they belonged to the Musician's Union, were regular enlisted men in their several regiments of militia. Upon their failure to appear for duty, the colonels of their regiments took up the code of militia regulations to inquire into the duty of enlisted musicians. As the officers concisely put the case: "If some new-military body has more power over any part of the military force stationed in San Francisco than the commander-in-chief, it is a better time to learn it now than to wait till an emergency arises, and they or other similar societies array themselves against the law and the officers appointed to administer the same." The *American Architect* thinks a salutary example should be made of the first offenders for so gross a military fault.

(The findings of the Court Martial were very much in keeping with the spirit of the above extract, as the leaders were dishonorably discharged and a fine imposed besides. Appeal, however, is being prepared for executive clemency.—Editor *California Architect*.)

VALUE of sunshine.—A physician in New York reports, that during an epidemic of diphtheria in that city, there were five times as many cases on the shady side of the street as on the sunny side.

COMPETITION in laying artificial stone pavements has brought about the usual result. Low prices means the use of poor materials, not only in pavements, but in every thing else. Years ago, when cement sidewalks were first laid, people were slow to believe that they would last a quarter of a century and show but little wear from the thousands passing over them. Yet, there are pavements that have been used half of that time, on one of the most traveled portions of Kearney street, and the noticeable wear would not average an eighth of an inch. At that time, we believe, the price was about twenty cents per square foot. Numerous patents were taken out for various ways of laying the artificial stone pavement, and then the competition began. The price was reduced to 15 cents; then by one half of a cent at a time, down to 13 cts. This price was regarded as the very lowest that it was possible to lay a pavement. But still competition cut under that figure and walks have been laid as low as 10 cents a square foot. One enterprising individual on Market street, just below Sixth, used ashes instead of gravel in making the concrete bed. With a great flourish he proclaimed that his patent excelled them all, and \$20,000 was wanted for the same for this city alone. It was but a few months after being laid, that the utter worthlessness of ashes instead of gravel was thoroughly proven, and a short time ago, it was necessary to replace the sidewalk entirely. It is so every time. Grind the price down to 10 cents, and you will have a 10 cent sidewalk. All over the city, sidewalks are crumbling to pieces that have been laid but a short time, many of them less than a year; while those put down by such men as Geo. Goodman, E. L. Ransome and a few others, have stood the test of more than 10 years, and the walks are as good to-day as when first laid. If property owners would consider that there is but \$20 difference between a first class job and a 10 cent sidewalk, that one will last an ordinary lifetime, and the other but a few years, surely it would seem that no hesitation should be shown in choosing the better article. It is absolutely impossible to lay a good pavement at 10 cents, or even 12 cents, per square foot, and use gravel and cement as they should be used. Note how the cheap walks are laid. Gravel is used in the proportion of 1 part gravel and about 2 parts of earthy matter, the presence of which utterly precludes a good concrete for the foundation. Even with this cheap mixture, the contractor seeks to get off by making it not over an inch and a half in thickness. On top of this, a mixture of sand and cement is placed, and then the top is merely washed with a thin coating of cement. In one year the sidewalk is useless and people begin to condemn the cement sidewalk. Let owners figure on 15 cents per square foot for their pavements, give the laying of them to responsible parties only, and our word for it, they will never regret the difference in cost.

SO far the proceedings of the International Congress of Architects, whose sessions were held in Paris, commencing June 17, do not amount to much. A paper was read by M. de Baudot, the subject of which was "Teaching of Architecture." The views taken by the speaker, according to the *American Architect*, were unfavorable to the system pursued at the Ecole des Beaux-Arts, and he argued very effectively in favor of a more practical training for young architects, which should remove from them the reproach of being able only to make handsome water-color drawings. After the paper was read, considerable discussion ensued, the opponents of M. de Baudot's views being in a decided majority. By a little sharp practice, the Convention finally dodged the issue with great discretion, by adopting a resolution to refer the matter to the next Convention which is not likely to be held for another ten years, at least.

The only other matter of professional interest, was that of requiring architects to pass an examination and receive a diploma before allowing them to practice. Arguments, pro and con, were freely indulged in, and the Convention dodged the issue in the same manner as above.

San Francisco Chapter American Institute of Architects.

The regular monthly meeting of the Chapter was held in their rooms, 408 California St., on Friday, August 2d. W. P. Moore occupied the chair. There was a very good attendance of the members.

The following named were nominated for officers for the ensuing term: President, Seth Babson; Vice-President, G. W. Percy, W. J. Cuthbertson, W. P. Moore; Secretary, O. Everett; Treasurer, J. M. Curtis; Trustees, Wright, Pissis, Percy, Gash, Bestor, Moore.

Applications for membership were received from D. L. Williams and F. Williams, both of Portland, Oregon.

An amendment was offered to the By-Laws by which the night of meeting is to be changed to the second Friday of the month.

The members of the Technical Society were invited in from their meeting room to listen to a paper read by John Gash, entitled, "THE STONE AGE." The paper was well received by those present, and an interesting discussion ensued in regard to stone and the causes that lead to its deterioration.

The thanks of the Chapter were extended to the speaker for his able address.

The Mechanics' Fair.

ARRANGEMENTS are in active progress for the opening of the Mechanics' Fair on the 27th of the present month. It will last to October 5th. From the extent of the preparations made, the next exhibit will be superior to any its predecessors. We are in hopes that the exhibit of building materials, finished as well as raw materials, will be such as to command the attention of strangers. We understand the Chapter of Architects have a committee on this subject, who are working harmoniously with committees from other associations, and we trust their efforts will be successful. Especially is it desired to have a complete line of building stone from the various quarries all over the coast. These should be accompanied by a certificate of chemical analysis from some well known assayer or chemist. Mechanics should show what they can do and the one who produces the longest thick shaving, and the longest thin shaving should each be entitled to a medal. We will give our customary review of all articles connected with the building interests.

A Dwelling House Elevator.

VERY few people like to climb stairs. If such a thing were possible and practical as an elevator in an ordinary private house, costing to erect and operate not so much as to put it beyond the means of an average house-owner, it would undoubtedly be a boon. A Berlin inventor has proposed a plan of "a simple and inexpensive elevator for private dwellings," which is worthy of mention. It is on the principle of the inclined railway, and the motive power is furnished by the city water, which is applied in the cellar; each flight has its separate chair, so that, for example, one person can ascend from the first to the second story while another is on his way from the second to the third, or still another is descending from the fifth to the fourth. The chair, being only the width of a human body, requires but little space, and still leaves a free passage for any who wishes to walk up or down, instead of riding. It is set in motion by a simple pressure upon one of its arms, while after it has been used it slides back to the bottom step, its descent being regulated in such a manner that the carrying of a passenger is a matter of entire safety. The motive power is, of course, more or less expensive, according to the cost of water, this being, it is stated, in Berlin at the rate of a little more than one-tenth of a cent only for each trip.

They have a fire-brick trust in England. And yet Englishmen call this country the land of monopolies and trusts. Those who live in glass houses should not throw fire bricks.—*Western Architect and Building News.*

Away From Home for News.

AN extract from the *North-Western Lumberman* will be interesting reading to those on this coast connected with the interests represented. Truly we have to go away from home for news, but, in this case, the news is a series of mistakes:

"Pacific coast lumbermen have been behind the times in some respects, but they are beginning to adopt improved methods, and from now on they will doubtless manufacture and sell lumber to better advantage. The band saw is being established in that region, and the dry kiln is making its way. It seems singular that coast lumbermen should be so slow to adopt improvements demonstrated to be of great value in other parts of the country; but it is a fact that strong pressure was required to get the band saw introduced in the manufacture of redwood and fir lumber, and it is of comparatively recent date that the feasibility of drying redwood was recognized. About a year ago a few kilns were put in at Stockton, San Jose and other points, and a few months ago the first one was put in at San Francisco. Now they are going in quite numerous through California, Washington and Oregon. The advent of lumbermen from fields east of the coast has resulted in various innovations in operations, and continued improvements and increased energy may be looked for."

ETCHING SAW BLADES.—Please inform me how saw manufacturers do fancy etching on the sides of steel saws? How could I put on a lion's head, with my name around the same?—B. A., Toronto, Ont.

Answer. Saw manufacturers have the design and lettering engraved first on a copper plate by a competent engraver, by usual methods. This is done so as to read the same as the finished saw in appearance (not reversed, as printing-plates are done.) One or more impressions are then taken on a copper-plate press, with an ink that has had added to it some bitumen, or acid-resisting resin with beeswax. These impressions should be made on a thin, even paper, and the ink is afterwards transferred from this print on to a polished steel plate. Diluted nitric acid being put on the steel, the general surface is etched away, so that the letters and ornamentation stand up in relief instead of being sunk, as they are in the copper plate. The steel plate is then cleaned off, and is printed from in like manner to produce impressions for transferring to the saws. These impressions have the letters and ornamentation white on a black ground. If several impressions of the copper plate are transferred to the steel plate side by side, and etched, then each sheet printed from the steel plate will supply several transfers, when cut apart, for use on as many saws, thus economizing labor very considerably. If any of the transfers on steel or saw should be incomplete—not thoroughly protecting the surface, some asphaltum varnish, or shellac varnish with a little lampblack in it, can be applied with a camel's hair brush to the bare parts, to make them safe. The transfers on the saws are then etched, though not so deep as the first transfer on the plate, and the result is a duplicate of the original copper plate, with black letters, etc. Care must be taken to neutralize any traces of acid remaining on the saws when they are cleaned off, to prevent rusting after they are laid away. If this inquirer desires to decorate but one saw for himself, he must use ordinary methods of engraving. Cover the saw with an asphaltum varnish, draw through that with a steel point, or etching needle, the design he wishes, and then apply diluted nitric acid (acid, 1 part; water 4 parts) with a feather or camel's-hair brush until the design is etched black enough to suit him; wash off with water, then with turpentine, and lastly with soda solution. He will probably find it difficult to draw his lines just as he wishes them over the coarse grinding of the surface of the saw.

—*Manufacturer and Builder.*

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This book is handsomely illustrated with 32 large plates in size 12 x 18 inches. We have copies of this work on sale, which will be furnished at publishers price, \$4.

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DESIGN FOR CITY DWELLING—HUERNE & EVERETT, Architects.

A Tin Roof.

After the brand of tin has been selected for a roof, there yet remains the question of how it shall be worked by the tinner in forming the roof. Two leading styles of tin roofs are recognized. One of these is known as "Flat Seam," or "Flat Lock," roofing, and the other is designated by such terms as "Standing Seam," or "Standing Groove," roofing. These two styles are not necessarily in competition with each other, for one of them is particularly adapted to flat or level roofs, while the other is better for use on roofs having a considerable pitch. In some parts of the country, tinner do not seem to be acquainted with standing seam roofs at all, and use the flat seam on all occasions.

Flat seam roofs are laid by locking the sheets together on all four edges alike and soldering, the result being one huge sheet covering the entire surface of the roof. As the sheets are laid, they are securely fastened to the roof by nailing through them under the edges turned up for the locks, or preferably by the use

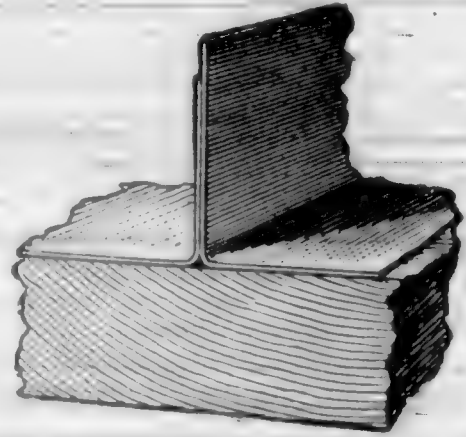


FIG. 4.—Edges of sheets turned up—first operation in laying a Standing Seam Roof.

of flat cleats. After laying, the seams are pounded flat and soldered. Such a roof is best for flat surfaces, but where a pitch of a half inch to the foot, or greater, can be obtained, better results are secured by laying the roof standing seam, which is illustrated in detail.

Standing seam roof is variously laid, and in the space of this pamphlet we can do no more than indicate the more common methods, and illustrate one of them. The sheets are first joined in the shop in long lengths by locking and soldering well on the upper side. The long strips are then rolled up and taken to the building. The strips are placed up and down the roof, and are united at their edges by the kind of joints that give the name to the style of roofing, namely standing seams. The construction of these joints is illustrated in figures 4, 5, 6, 7. Either of the sizes of sheets before mentioned may be used in a standing seam roof, and each of them may be worked in either of two ways; that is, either the wide or narrow way. Probably the larger number of standing seam roofs, the country over, are laid the 20-

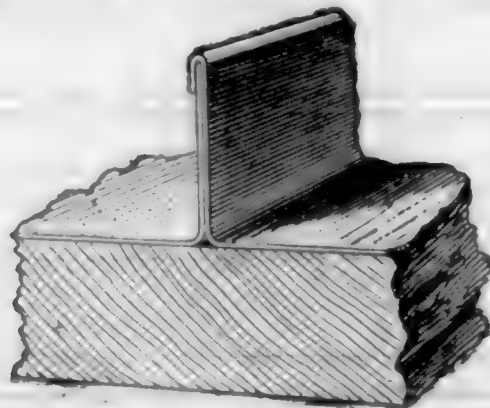


FIG. 5.—The high edge bent over the lower—the second operation.

inch way of the sheets whichever size of plate is used. Different roofers prefer different methods, and in all cases more depends upon the intelligence with which the work is done than upon which way of the sheet the roof is laid, or of the size of the sheets. In the same way the height of the standing seam varies from $\frac{1}{2}$ of an inch minimum to $1\frac{1}{2}$ inches maximum. In the diagrams which we have introduced in this connection, we have employed the size of seams to which a large majority of tinner are accustomed to work.

STANDING SEAM ROOFS: 14x20 PLATES.

Many roofers claim that a better roof can be made of 14 x 20 plates than of 20 x 28. It costs a little more to lay a roof of the 14 x 20 size than it does of the 20 x 28 size, owing to the greater number of seams. In our estimation locality or custom has much to do with the use of the two different sizes. The 14 x 20 plates can be used for standing seam roofs in two ways. The more desirable way is by laying the sheets the 14 inch way, as illustrated in Fig. 1.

Using the tin in the manner shown in Fig. 1, as compared with

the plan of working the sheets the other way about, requires more cleats and nails, as well as labor. The figures in the engraving represent the net surface of each sheet when laid the 14-inch way, and finished with a standing seam 1 inch in height. The cross locks are calculated $\frac{1}{2}$ of an inch wide.

PUTTING TIN TOGETHER.

Figure 2 shows how the sheets are formed and put together in lengths preparatory to laying them on the roof.

STANDING SEAM ROOF, 20 x 28 PLATES.

Figure 3 shows the appearance of a Standing Seam Roof laid, of 20 x 28 sheets, and represents the net surface of each sheet when laid the 20-inch way.

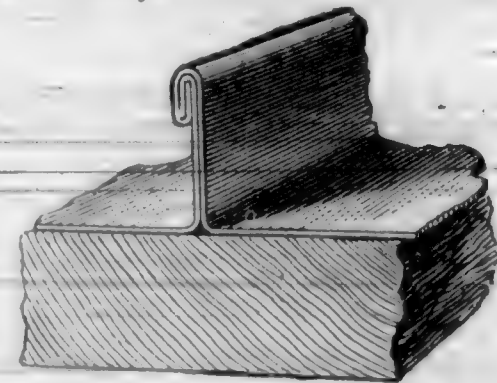


FIG. 6.—The top, turned over the second time forming the double seam.

If two roofers figure to lay a roof of 20 x 28, and one lays it the 20-inch way he cannot lay it as cheaply as the one who would lay it the 28-inch way. But the 20-inch way makes the better roof.

ADVANTAGES OF A STANDING SEAM ROOF.

Where there is enough slope or fall to the roof, we recommend that the standing seam be used, and the same run down as far as within 5 inches of the level of the gutter water line, and that the cross seams be well soldered.

The advantage to be derived from the standing seam is an allowance for a greater amount of expansion and contraction than from the flat seam; as flat seams being soldered, make the entire roof practically a solid sheet.

We show in Figs. 4 to 7, inclusive, the method of making a standing seam. Fig. 4 shows sheets formed, or the edges turned up; Fig. 5 shows the first seam turned; Fig. 6 shows the seams double-locked and closed, and Fig. 7 shows the seams double-locked, closed, with paper under a standing seam roof, also showing cleat in finished seam.

CLEATS FOR A STANDING SEAM ROOF.

Are made of tin about $1\frac{1}{2}$ wide by $4\frac{1}{2}$ long, and they should be placed at intervals of not more than 14 inches, and should always be used of style as shown in Fig. 8.

Two good sized barbed wire nails should be used for holding the cleat in place. Nailing through a single thickness of tin is not enough to hold the work in place. Always cover the heads of the nails and prevent them coming in contact with the roof covering. These considerations give rise to the form of cleat illustrated in Figs. 8 and 9.

Empire Sheathing paper under a flat or standing seam tin roof, as under all metal roofs, is an advantage. Fig. 7 illustrates the

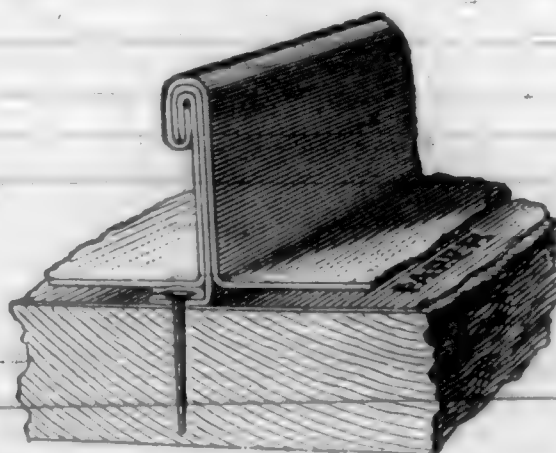


FIG. 7.—Paper under a Standing Seam Roof; also showing cleat in finished seam.

combination, and also shows the form of cleat illustrated in Figs. 8 and 9 in position.

GUTTERS.

Have the tin carefully put together, and the seams well soldered. Have the strips well cleated to the boards, and see that the gutters run up high enough to be above the water line. For gutters we recommend the 1X thickness.

FIRE WALLS.

Have the Fire-Walls thoroughly covered with tin, which should be strapped or fastened to the walls every twelve inches.

SOLDERING.

We recommend the use of Rosin only as a flux in soldering,

and after soldering all Rosin should be carefully cleaned from the surface, otherwise it will appear after roof is painted." Half and Half" solder (a mixture of half tin and half lead) is the quality most suitable for roofing purposes.

100 square feet standing seam roofing should not take less than 3 pounds solder; 100 square feet flat seam roofing requires 7 pounds solder, which amount should be rigidly insisted upon to properly solder roof.

PAINTING THE ROOF.

The best paint for the purpose is composed of:—

7 pounds Prince's Metallic Paint, dry.

1 gallon Pure Linseed Oil ($\frac{1}{4}$ boiled and $\frac{3}{4}$ raw).

The above amount will cover 500 square feet.

The substitution of Benzine or Fish Oils for the Pure Linseed Oil should not be allowed.

The roof will last longer and be less liable to rust if painted on the under surface before laying, and should be so painted in every instance. It should also have two coats of paint on upper side as soon as the roof is laid and soldered. It is a good plan to put one layer of Empire Sheathing paper under the tin to serve



FIG. 8.—Cleat with double nailing flange and cap.

as a cushion for same, and to deaden the noise made by the rain falling on the tin. This also prevents the annoyance of condensation on the under side, which frequently causes such a drip as to make it appear that the roof leaks.

A year after the first painting the roof should be painted again, and then a good roof will only require painting once in five years.

THE NUMBER OF SQUARE FEET A BOX OF ROOFING TIN WILL COVER.

For flat seam Roofing, using 1-2 inch locks, a box 14x20 size will cover about 192 square feet and for standing seam, using 3-8-inch locks, and turning $1\frac{1}{4}$ and 1 1-2 inches edges, making one inch standing seams, it will lay about 168 square feet.

For flat seam roofing, using 1-2-inch locks, a box of 28x20 size will cover about 399 square feet and for standing seam, using $\frac{3}{8}$ -inch locks and turning $1\frac{1}{4}$ and 1 1-2 inches edges, making 1-inch standing seams, it will lay about 365 square feet.

Every box of roofing plates (1C or 1X 14x20 or 20x28 sizes) contains 112 sheets.

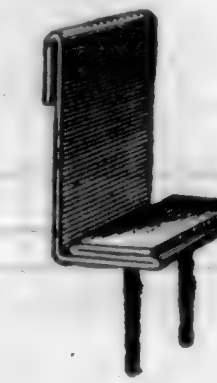


FIG. 9.—Same cleat, with cap covering the nail heads.

SUGGESTIONS TO THOSE SPECIFYING TIN ROOFING.

In view of the foregoing, we would suggest to architects desiring to specify the best roofing tin and selecting our guaranteed brands, that the following precautions be taken in the wording of their specifications:

1st. That the name of the brand be written down in full, "Gilbertson's Old Method" or "Merchant's Roofing" or "Camaret."

2d. Every sheet to be stamped not only with the name of the brand, but also the thickness to be used—1C or 1X.

If either of the above-named brands be used as a standard, and a cheaper brand be inserted in the same specification, there is, of course, little or no chance of our plates being used. Furthermore, after a specification has been so written as to allow inferior brands to be used—and very possibly the imperfect or waster sheets of same—and the roof commences to leak or show defects (as it would undoubtedly do in a short time), the specification is looked up, and our brands are condemned, when, in fact, they have never been used upon the roof in question.

We are prepared to prove that we were the first to introduce guaranteed plates and stamp every sheet with the name of the brand and thickness; and having also done away with the imperfect or waster sheets to further protect architects who wish to specify, and property owners who want to use the best, we feel that we have a right, under these circumstances, to ask that our guaranteed brands shall not be specified along with other brands in the market, which are inferior in quality, coating, weight and assortment.

We are at all times ready to afford any further information desired on this subject.

Samples of our "Gilbertson's Old Method" and "Merchant's Roofing" and "Camaret" brands of guaranteed Roofing Plates mailed on application. Merchant & CO., Philadelphia.

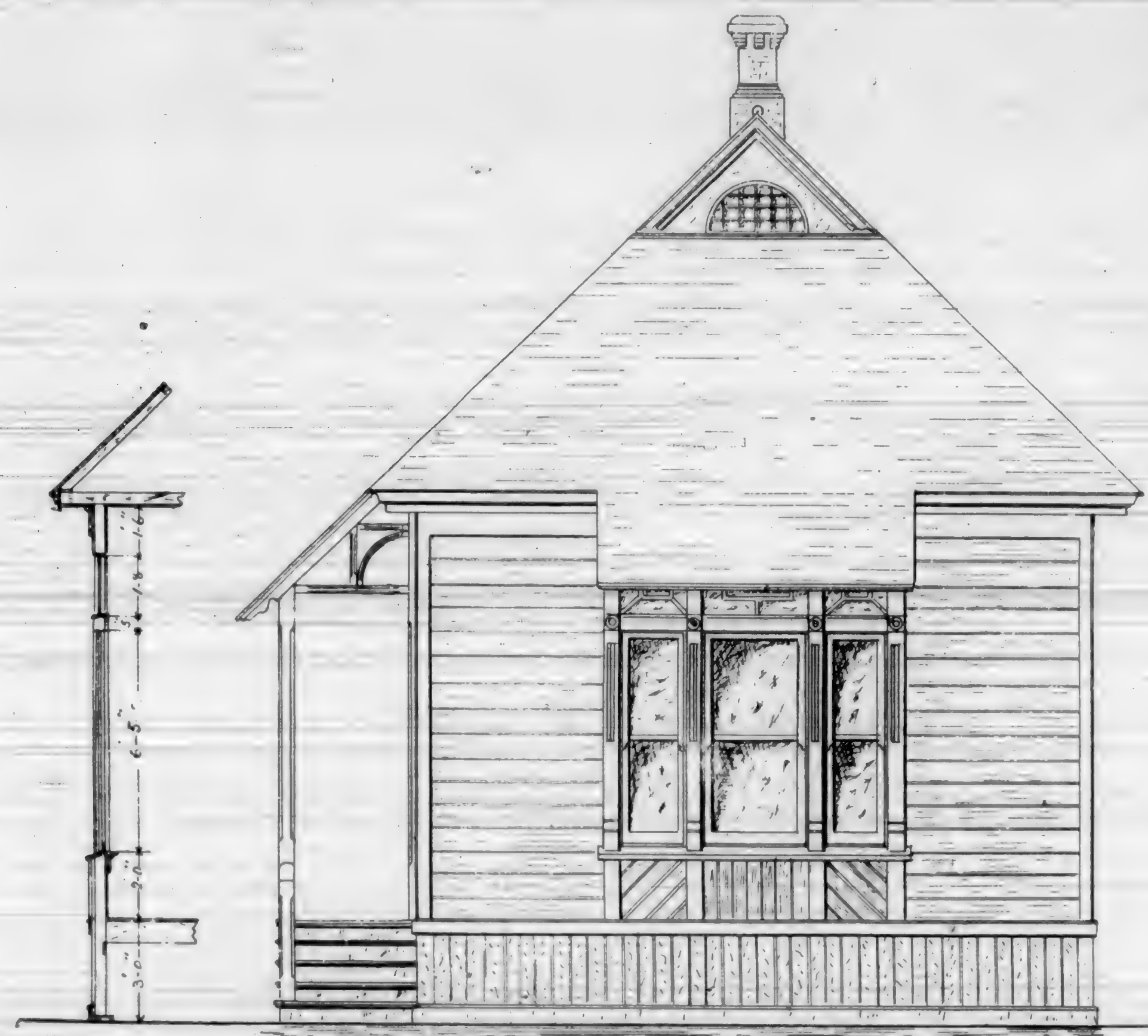
Mothers as Wage-Earners.

FOR years the world has been on a moral crusade against the employment of children in mines and factories, while the far greater evils that result from the mothers going out as wage-earners have attracted comparatively very little attention. Labor, within certain limits, is good for the child, giving it a wholesome moral discipline, and training it for the business by which it is to earn its livelihood; but when a married woman has to neglect her natural duties for the responsibilities that properly belong to the other sex, it is time for humanity to protest in the name of her offspring. No one individual can fulfill satisfactorily the double or, I should say, the triple function of bearing and rearing children, and providing for their maintenance. I am a laboring woman myself, and have met with some success as a bread-winner; and I know the conditions of performing this function satisfactorily are quite incompatible with those arduous and important duties which make such heavy demands upon every conscientious mother, especially among the poor. In the homes of the very poor there are no hired servants to keep the household machinery running smoothly while the mistress is away. The wife of the laboring man is frequently cook, nurse, house-maid, laundress—all in one; and if she must go out as a bread-winner besides, what is to prevent the domestic engine from running off the track and getting itself hopelessly ditched? Of the two evils, if both are evils, I am persuaded that it is better that the child should go out to labor than the mother. Liberty, uncurbed by the check-rein of parental restraint, is a more than doubtful blessing for the loss of which the child that takes its mother's place in the shop or the mill is more than compensated by the advantage of having her care at home.—Eliza F. Andrews.

A Good Thing for Boys.

MANUAL training is one of the few good things that are good for everybody. It is good for the rich boy, to teach him respect for the dignity of beautiful work. It is good for the poor boy, to increase his facility for handling tools, if tools prove to be the things he must handle for a living afterward. It is good for the bookish boy, to draw him away from his books. But, most of all, it is good for the non-bookish boy; it shows him that there is something that he can do well. The boy utterly unable, even if he were studious, to keep up in book knowledge and percentage with the brighter boys, becomes discouraged, dull and moody. Let him go to the work-room for an hour, and find that he can make a box or plane a rough piece of board as well as the brighter scholar, yes, very likely better than his brighter neighbor, and you have given him an impulse of self-respect that is of untold benefit to him when he goes back to his studies. He will be a brighter and better boy for finding out something that he can do well. Mind you, it is plaining the board in the presence of other boys who can no longer look down upon him when they see how well he can plane. He might go home after school and plane a board in the bosom of his family, or go to an evening school to learn to plane, without a quarter part, nay, without any of the invaluable effects upon his manhood that it will have to let him plane side by side with those who in mental attainments may be his superiors.—Selected.

We will send Palliser's Quarterly for one year (price \$3.00) and the California Architect (price \$2.00)—the two for \$4.00.



A NEAT COTTAGE—PLAN ON OPPOSITE PAGE.

Decomposition of Stone.

DR G. W. HAWES, in a report to the United States Government says: There are many more factors which determine the value of stone for purposes of construction than are often considered in the elementary treatises upon this subject, and the rules laid down are often determined by the local circumstances. A more extensive study of building stones frequently vitiates the rules which apply in limited areas. It is, for example, stated that, in order to determine whether a stone will withstand the action of the weather, one should visit the quarry and observe whether the ledges that have been exposed to the weather are deeply corroded, or whether these old surfaces are still fresh. This is not a fair criterion, because the applicability of such a test is modified by geological phenomena. North of the glacial limit, all the products of decomposition have been planed away and deposited as drift formation over the length and breadth of the land. The rocks are therefore in general, quite fresh in appearance, and possess but a slight depth of cad or worthless rock. The same classes of rock, however in the South are covered with the rotten products resulting from long ages of atmospheric action. They may be rotten to great depths, and the removal of the worthless rock is often difficult. This is due to the circumstances that no agencies have here operated to scrape off and remove the loose material from their surfaces in recent geological time.

There are other peculiarities of decomposition regarding which too absolute rules have been laid down. Pyrites is considered to be the enemy of the quarryman and constructor, as it decomposes with ease, and stains and discolors the rock. But here, too, there are features which very seriously modify the effect of this decomposing substance. Pyrites, in sharp, well defined crystals, sometimes decomposes with great difficulty. If a crystal or grain of pyrites is embodied in soft, porous, light colored sandstones, like those which come from Ohio, its presence will with certainty soon demonstrate itself by the black spot, which will form about in the porous stone, and which will permanently disfigure and mar its beauty. If the same grain of pyrites is situated in a very hard, compact, non-absorbent stone, the constituent minerals of which

are not rifted or cracked, this grain of pyrites may decompose and the products be washed away, leaving the stone untarnished.

Again, some of the constitutional elements of rocks are so frequently found in a decomposed condition that they are considered to be deleterious, when present in large quantity, on account of their well-known tendency to decompose. For example, olivine indicates a very marked tendency to decompose, as indicated by the vast accumulations of serpentine, which are so frequently found to be a result of its decompositions; but the circumstances which in past time has brought about this decomposition may have been very different from those which indicate that it will decompose under the present influences. We wish to bring prominently forward that we consider that a decision as to the probable action of the agents producing decomposition in rocks should be largely dependent upon careful microscopic examination of the structure of the rock. Our experience has demonstrated that a rock of a given character, as regards ultimate composition and mineral constituents, may be easily affected by the weather if its constituent minerals, as indicated by their microscopic structure, are so fractured that they are laid open to atmospheric agencies through rifts, no matter how small, while the same stone, with the same constituent minerals are sound, whole, and impermeable, as indicated by the microscopic structure.

In the old world, where immense cathedrals, planned long ago, have been in the process of construction for hundreds of years, it has not been uncommon to see portions of the building fall into decay before the structure was finished, and the process of restoration often consumes large sums of money while the process of construction is yet going on. It thus very frequently happens that a variety of stones is used in the construction of the same building, because in this process of construction experience is gained indicating inapplicability of the stone used for durable structures. In this case it is experience alone which finally dictates the most suitable material, and even to this day, here in America, there is no other criterion to apply to a building stone save the test of experience; and the result is that buildings can be pointed to which, like those old, immense structures before referred to, are already crumbling while yet in the process of construction.

Colors of Stone in Building.

A STUDENT of architecture in Boston, went to the professor of architecture in the Institute of Technology in that city and said: "Why is it that the new cathedral on Washington street has such a pale sallow look?"

"That is it," he said, "it is pale and sallow. The stone is of a grey color, not very light, neither very dark. The trimmings are of a whitish cast. Still there is not a great distinction between the two. This fact, as much as anything else, has to do with the failure on this great building."

The buildings of this country do not compare in artistic elegance with those of France or Germany. The reason is not on account of the amount of money expended, but is rather because of the lack of education of our architects. The mercantile rather than the artistic instincts are developed in a member of this profession. Not but that the artistic element is present to a certain extent, but so much of the business success of an architect is dependent upon his trade instincts that it often happens that the artistic development suffers through an enlargement of the importance of the business feature. Thus is it that very little attention has been paid to the proper blending and selection of color in building. Especially is this true where the color selections are depended upon the arrangement of materials as they naturally exist. This same grey stone that is used in the cathedral in Boston has been used successfully elsewhere through a different arrangement of color. The trimmings in some cases have been of brownstone, the grey of the body being affected advantageously thereby, and the brownstone itself being enriched by its contrast with the body color. This same grey stone has been successfully used with buff Amherst sandstone and Nova Scotia stone. The result of the use of these warm tinted materials is that an agreeable contrast is afforded between the grey body stone and that of the trimmings. The warmth of the trimming stone is emphasized by the cold grey tints of the main structure, and the latter is brought into agreeable effect through its association with other material. In one instance there is the neutral body and the enriched tone of the trimmings. It makes the difference between a building which is weak and flat in appearance and one which is vigorous, imposing and artistic.

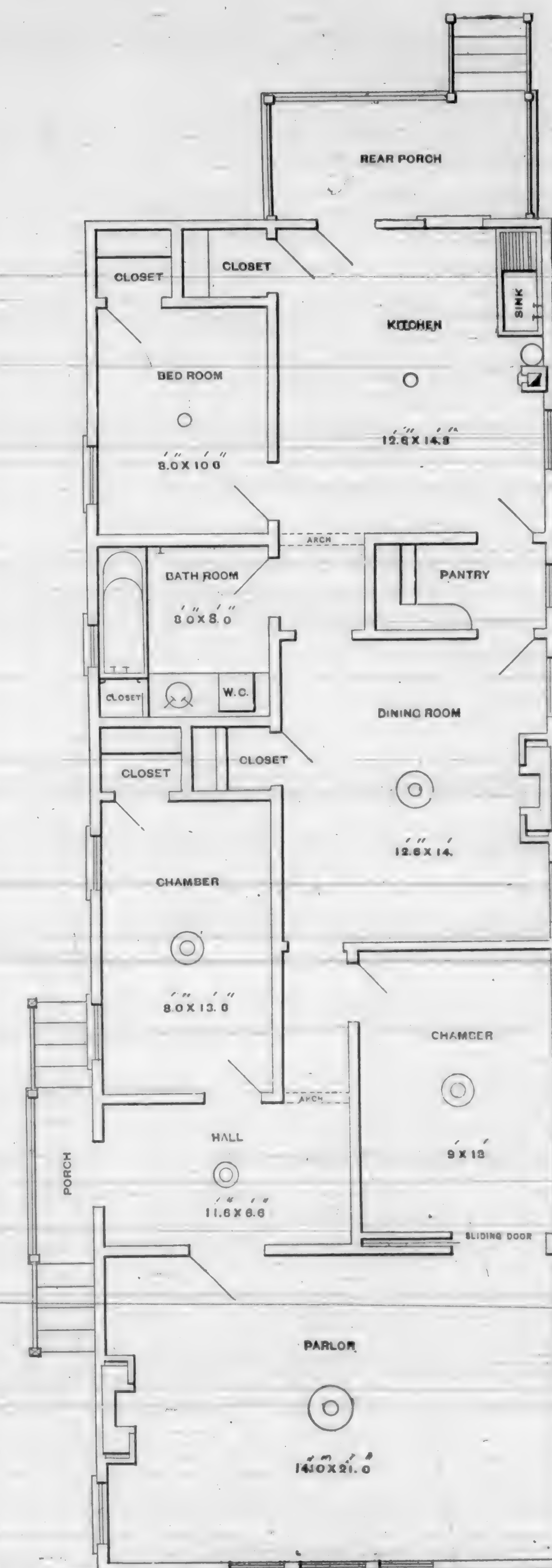
The union of brownstone trimmings with the grey granite body was a favorite combination with Mr. Richardson. He used it in the libraries at North Easton, Quincy and Woburn. Also in the city hall at Albany. It is much better to use a single tint of stone than two cold colors one of which will emphasize the weakness of the other. In the court-house at Pittsburgh, and the Chamber of Commerce at Cincinnati, grey stone is used exclusively, and the result is highly satisfactory. Relief is afforded by the carving and the recesses in the openings and by moldings, decorative and otherwise.—Stone.

A NEW building law in force at Berlin requires the submission of the plans of every building to the Government. Only two-thirds of the lot can be used for the building, which must not be higher than the width of the street. The stairs must be of stone. After the building has been finished it must lie idle for six months to let the walls dry. Then the health officer inspects the structure and decides how many people may sleep in each room.

Measuring Brickwork.

PROBABLY the best way to measure brickwork, in the opinion of an American writer, is by the dimensions. The unit of measurement in this case is not important. The cubic foot or yard is employed to some extent, but the perch of 25 cubic feet and the superficial rod in brickwork one brick thick are often used. Unfortunately the term "rod" has no very definite significance. Two hundred and seventy-two and a half square feet and one and a half bricks thick, 16½ feet square or 27½ square feet and one brick thick, 16½ square feet and 63 square feet, are all termed "rods." Under these circumstances it would probably be of advantage if the cubic foot or yard could be made the standard unit of measurement for brickwork throughout the country.

It may be added that the number of bricks contained in any piece of built brickwork may be approximately ascertained by deducting one-tenth for the volume of mortar.



PLAN OF A NEAT COTTAGE.

Note our offer for books in connection with CALIFORNIA ARCHITECT—See page 115.

Remarkable Discoveries in Egypt.

The two large July gatherings held in London, England, by the Victoria Institute are considered to have been of much importance. The President, Sir G. G. Stokes, Bart., President of the Royal Society took the chair at both, and on each occasion the members crowded the large hall engaged to the doors. At the first meeting, Professor Sayce's account of his examination of the library brought by Amenophis III. from Assyria to Egypt 34 centuries ago, was given. The Lord Chancellor delivered an eloquent speech on the occasion, and M. Naville, the discoverer of Succoth-Pithom, Bubastis, and other places of great historical importance in Egypt, characterized the discovery described by Professor Sayce as one of the most important, and perhaps really the most important, of this century; and the Victoria Institute's members were not slow in recognising the value of their fellow-member's work. At the second meeting, the members assembled to welcome M. Naville on his arrival in England after his discovery of the site of Bubastis, and his exploration thereof. The business of this meeting was commenced by the election, as members, of several who had applied to join the Institute as supporters, including His Excellency Count Bernstorff, and several Australian and American associates, after which M. Naville himself described his own discoveries at Bubastis, for the first time in England,—his last visit to England having been previous to those discoveries. The Society of Arts have most kindly placed their apparatus at the disposal of the Victoria Institute, he showed, by lime-light, the photographs he had made on the spot.

M. Naville commenced by quoting the prophecy of Ezekiel against Egypt, because it contained the names of the leading buried cities, the recovery of the records of which he is so desirous to obtain; and here we may be permitted to digress for a moment to call attention to the fact that the authoress of the last published work in regard to the East declares that prophecy had not been fulfilled according to the prophet's words. Strange that the greatest and most successful Egyptian explorer of modern times should go to this very prophecy for light, to enable him to find that which others had failed to discover! Taking the last city named, he described how he found Pibseth-Bubastis, how each day's excavating work brought him new relics, new inscriptions: how he found Ramesses II., in the 19th dynasty, had as usual, blotted out the names of previous Pharaohs, and put his own name on everything, even on the statue of a Pharaoh of the 4th dynasty; and how, by careful comparison, aided by the fact that Ramesses II. had not been quite thorough in his appropriations, he had discovered which Pharaoh of the 4th dynasty the statue represented. He came to the conclusion that Bubastis was founded at least as early as in the reign of Cheops, between whom and Pepi, of whose influence there were traces, 500 years intervened, 800 years after there was a transformation of the city in the 12th dynasty; in the 14th dynasty there was the invasion of the Hyksos or shepherds, who, from the statues of great beauty found, and from other evidences, must have been a highly cultivated people, who, he considered, must have come from Mesopotamia. Dr. Virchow considered that their monuments represented Turanians, and Professor Flower considered them to represent people of a Turanian or Mongoloid type, but that did not mean that the population itself was Turanian. Their worship and language was of a Semitic type, but the statues of their kings showed that they were not Semites. M. Naville added: "It was then what it is still now; and I believe that the conquest of Egypt by the Hyksos is not unlike what would happen at the present day if the population of Mesopotamia overran the valley of the Nile; you would have masses, in great majority of Semitic race, speaking a Semitic language, having a Semitic religion, and being under the command of Turks, who are not Semites but Turanians."

M. Naville, having referred to the head of a Hyksos King, which he had sent to the British Museum, added that he had found two statues of Apepi, the Pharaoh of Joseph, and inscriptions in regard to the Pharaoh of the Exodus, and many others of high interest. But it would be impossible to refer to the mine of interesting matter in this paper, and we can only congratulate the members of the Victoria Institute on possessing it: it is certainly worth the whole year's subscription to possess this one paper. M. Naville, in concluding, said: "I cannot dwell at great length here on the events of the Exodus, yet I should like to mention that the successive discoveries made in the Delta have had the result of making the sacred narrative more comprehensible in many points, and in one especially in showing that the distances were much shorter than was generally thought. I con-

sider, for instance, it important to have established that Bubastis was a very large city, and a favorite resort of the king and his family. It is quite possible that, at the time when the events preceding the Exodus took place, the king was at Bubastis, not at Tanis, as we generally believed."

Sir George Stokes, Bart., having conveyed the thanks of the members to M. Naville, a short discussion took place, during which Captain Francis Petrie, the Honorary Secretary, pointed out that what Professor Sayce's paper has done as regards Assyrian and Babylonian history, M. Naville's had done as regards Egyptian history. They were papers advancing the practical work of the Institute in investigating philosophical and scientific questions, especially any questions used by those who unhappily sought to attack the Bible in the name of Science; and both would appear in the Journal, which would be presented at the Institute's Rooms, 1A, Adelphi Terrace, to all members and associates who were now on the list, or who might apply to join after the 10th of July. The President, members and associates then adjourned to the Museum, where refreshments were served.

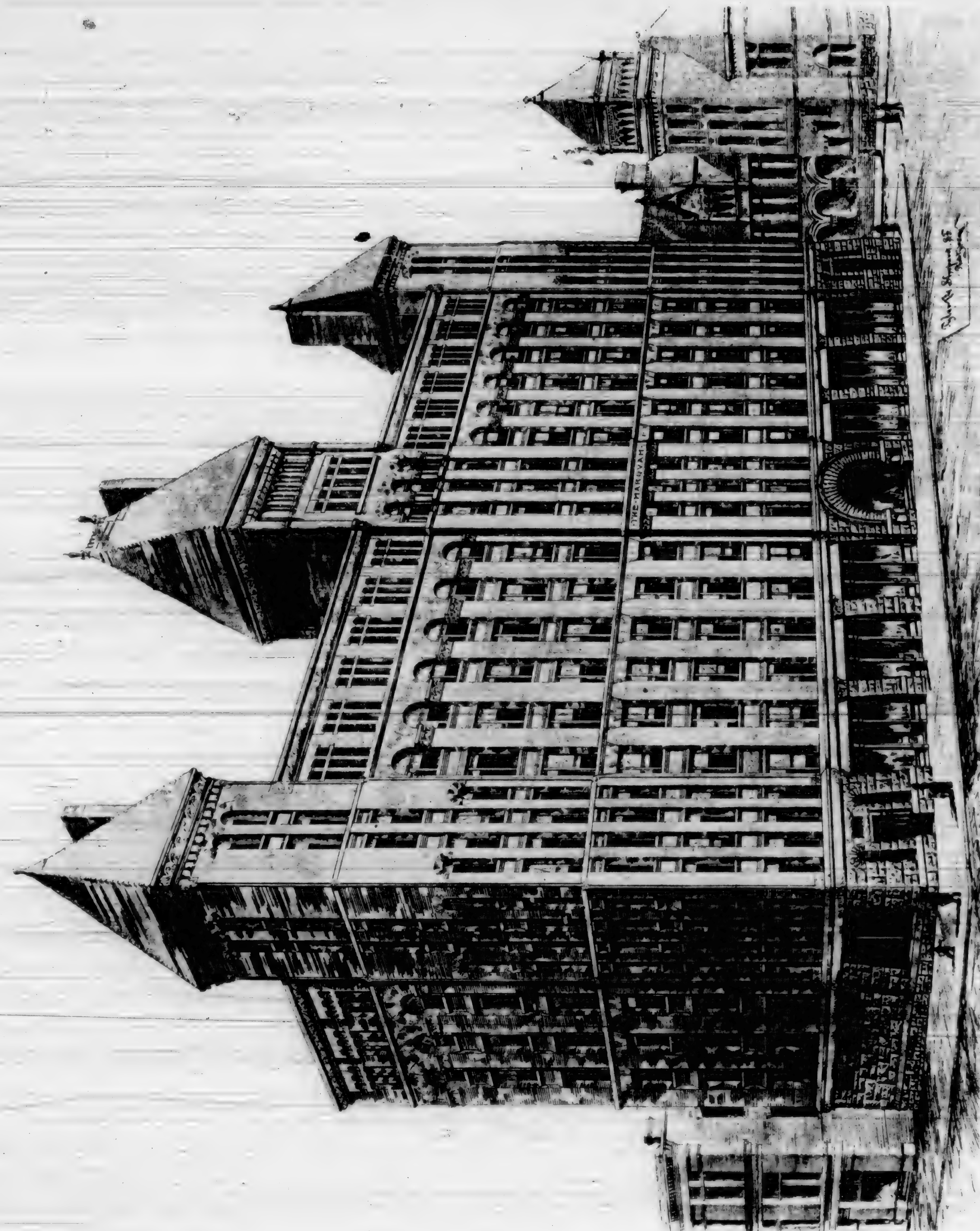
To Keep Iron Pipes From Rusting.

A SIMPLE and economical way of tarring sheet iron pipes to keep them from rusting is the following, suggested by a correspondent of the *Gas Light Journal*. The sections as made should be coated with coal tar and then filled with light wood shaving, and the latter set on fire. It is declared that the effect of this treatment will be to render the iron practically proof against rust for an indefinite period, rendering future painting unnecessary. In proof of this assertion the writer cites the example of a chimney of sheet iron erected in 1866, and which, through being treated as he describes, is as bright and sound to-day as when erected, though it has never had a brushful of paint applied to it since. It is suggested that by strongly heating the iron after the tar is laid on the outside, the latter is literally burnt into the metal, closing the pores and rendering it rust proof in a far more complete manner than if the tar itself was first made hot and applied to cold iron, according to the usual practice. It is important, of course, that the iron should not be made too hot, or kept hot for too long a time, lest the tar should be burnt off. Hence the direction for the use of light shavings instead of any other means of heating.

Don't Neglect The Plumbing.

A writer in the *Sanitary Engineer* says: At this season of the year it is usual for the man of the house to walk and carry himself with modest mien; if, under other circumstances, he might be bold enough to have something to say upon domestic affairs or utter a word of advice, he will find silence to be golden at the present; and why? Because for the last month house-cleaning has taken possession of what was once home; painters, calciminers, carpet-beaters, scrub-women, etc., jostle him rudely and look upon him with superb disdain as he meekly goes and comes. His wife, the partner of his joys and sorrows, seems a changed being, as, with a towel for headgear, she issues her imperious edicts. This is well, and in a sanitary point of view, much of it is necessary and beneficial; but usually it is but seldom that any thought is given to the plumbing or sewerage of the house. The plumbing, Tennyson's book is expected to run on forever. New curtains must be had, furniture upholstered, new carpets purchased, but not one thought is given the faithful servant that brings to the room the luxury of hot and cold water, the ever-ready basin, sink, bath, or closet—a luxury to the householder when in good health, a necessity when sick. The plumbing is left year after year without examination, repairs grudgingly allowed or not made at all, and this man who pays more for the carpet for the parlor than the original plumbing of his building cost, will be first to bewail the cost of needed repair. It never occurs to him that closets, traps, and waste-pipes, no matter how well adapted for the work, will in time need cleansing. Sewer connections may be broken by settling of the building, and that abomination authorized by the law and maintained by ignorance and incapacity, the disease breeder, the enlarged slop-pail in the yard, called the catch-basin, generating and belching forth the gases arising from its gathered filth—that needs cleansing, and needs it often.

It should be the mission of plumbers' associations to educate the people in this direction. The press will aid them. Here is work for their sanitary committees. The field is before them. Let this city take the lead.



J. M. Wood, Architect

THE MARQUAM.

Treatment of Ceilings.

The ceiling is perhaps the part of an apartment that calls most loudly for decoration, and no architectural feature is more susceptible of it, where it might be introduced with more effect, or give more pleasure to the inmate; yet this feature we almost invariably neglect. We naturally look up for beauty; however lovely the earth, the sky, both night and day, presents us with greater charms; we are cheered in our outdoor hours by its ever-changing picture, for which a flat white plane is a miserable substitute in our indoor life. To houses of the very highest class these remarks will apply, for it is a feature which has not had its due proportion of attention, in point of decoration, in any class of buildings, from the cottage to the palace. There certainly can be no more fitting place for decoration in the habitation of a being created upright. Can inconsistency be more extreme than that presented by thousands of apartments, where a rich, elaborately decorated carpet is under the feet, and a plain, dead, flat ceiling above? In the interior of Arabian buildings the ornaments almost invariably become richer, more delicate and minute, as their height from the floor increases, and the most exquisite productions of the artist are lavished on the ceiling. With respect to the form, the curve is at all times preferable to the flat, though the latter by various means is capable of great beauty also. No very great additional height is required in order to have a curved ceiling, as, whether coved or segmental, the rise need not be very great. For rooms of great pretension there is no form more noble and natural than the vault and dome, particularly the latter, whether hemispherical or segmental, as far as it suits the plan or can be adopted by pendentives or otherwise. It is the best substitute for the blue vault of the sky, the starry concave of the heavens. It was a fine idea of the builders of the mosque of St. Sophia at Constantinople—a conception in advance of ours—to make the curve of its dome so flat that it should seem to correspond with that of the sky, and be a portion of the firmament. We want an enlarged, improved, enriched, and at the same time inexpensive system of interior decoration, for domestic and ecclesiastical, commercial and other buildings, in our Anglo-Classic styles.

For churches, collegiate and other buildings in the Pointed style, we have examples in our cathedrals and other buildings, which prove that the genius of interior decoration was once among us, as well as the taste to employ it. At Henry the Seventh and King's College Chapels; the oratory at Beauchamp Chapel; the Temple Church; Wolsey's Hall, Hampton Court; Christ Church Hall, Oxford; Westminster Hall, and others, we have ceilings and roofs that might vie with any that Europe could show. For assistance in evolving a system of Classic decorations we might look to some parts of the Continent. Exterior decorations there has sometimes probably been carried too far, a few Continental edifices exhibiting ornaments so minute and fragile as to seem at least unfit for exposure to the weather in any climate. But this could not be said of interiors. The Moorish or Morisco-Spanish architecture suggests to us what richness might be produced by very simple means; their icicle pendants, inlays, and casings, and purely geometrical and imaginative ornaments, are very effective, and with them they often produce greater results than we, with all nature to imitate, have attained to. But the art of interior decoration was better understood and more successfully practiced in the great age of modern art in Italy, and indeed throughout the Middle Ages than at present in any country. We never had any decoration, to be compared with the mural and fresco paintings of the Italians, and there is probability in the supposition that their system was obtained from remains of the ancients, which time or violence has not spared to us. Beside the curved and richly emblazoned ceilings produced by the Italians, and the pictorial embellishment of their walls, ours might symbolize poverty itself. The ceilings of the principal apartments of a Roman, Genoese, Venetian or Florentine palace were considered as most important features, and on their design and execution the highest talent was employed. In ecclesiastical buildings the contrast with ours would be still greater. Whilst the interior of the churches of Italy glow with every rich hue of the marble quarry, and are virtually galleries of art, what is the aspect of ours?—*London Architect.*

Subscription price of this Journal is \$2.00 per year. Examine the Contents of this Issue and see if it is not worthy of your support.

Architectural and Mechanical Works.

In our list below will be found the names of books on architectural and mechanical subjects, the prices of which have been greatly reduced if taken in connection with the CALIFORNIA ARCHITECT. Old subscribers will be given the books at a large discount, so that they may feel that no favoritism is shown. It will be noticed that some of the books are given free to new subscribers.

	Price of Book.	With Cal. Architect.
Mechanics' Geometry.....	\$5 00	\$5 75
Monckton's National Carpenter.....	5 00	5 75
Cottages.....	1 00	2 40
Shavings and Saw Dust.....	1 50	2 75
Moore's General Assistant.....	2 50	3 25
Plaster and Plastering.....	1 00	2 40
Hand-Book of Legendary Art.....	3 00	3 75
Manual for Furniture Men.....	1 00	2 40
Water Closets.....	1 50	2 40
Cutting Tools.....	1 50	3 00
Sewer Gas and Its Dangers.....	1 25	2 50
Handrailing and Staircasing.....	1 25	2 75
Sloan's American Houses.....	1 50	2 75
Amateur Mechanic's Workshop.....	1 50	3 00
American Cottage Builder.....	3 50	4 00
Wheeler's Rural Homes.....	1 50	3 00
Burns' Ornamental Drawing.....	1 00	2 40
Manual of Drawing for Carpenters.....	3 00	4 00
Steam Engine Catechism.....	1 00	2 40
Grimshaw on Saws.....	4 00	4 75
Modern Low-Cost Houses.....	50	2 00
A Cozy Home.....	25	2 00
California Picturesque Architecture, No. 1.....	3 00	4 00
California Picturesque Architecture, No. 2.....	3 50	4 25
The Artisan.....	5 00	5 75

The following are justly recognized as standard publications. Some of them are perfectly new works, but we make the same general reduction:

	Price of Book.	With Cal. Architect.
Tredgold's Carpentry.....	\$ 7 50	\$ 8 25
Building Construction, 3 vols.....	14 00	14 75
Picture-Making with Pen and Ink.....	4 00	5 25
New American Architecture (Palliser's).....	4 00	5 25
Palliser's New Quarterly, per year.....	3 00	4 00

We can furnish any book printed at publishers' prices, and will send all books free by either mail or express.

PLASTERING by a new process of hardening so as to make it available for the construction of floors in place of wood, has been brought before the French Academy of Science by M. Jute, says an exchange. A mixture of six quarts of plaster of good quality and one part of finely sifted, recently slaked white lime is employed like ordinary plaster. After it has become thoroughly dry, the object manufactured from it is saturated with a solution any sulphate whatever whose base is precipitated in an insoluble form by lime. The sulphate especially recommended for the purpose are those of iron and zinc. In order to obtain the maximum of hardness and tenacity it is necessary to temper the limed plaster well in as brief a space of time as possible, and with no more water than is strictly necessary.

ACADEMY

Architecture and Building

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An Institute for Theoretical and Practical Education for Building Tradesmen. Completed within three courses. Terms begin September, December and March. Students may enter in any one of these terms. The Academy will always assist its graduates in obtaining positions as Draughtsmen, Superintendents, Foremen, etc. Send for Prospectus.

H. MAACK, Principal.

\$1,500 rough pipes in; \$1,457 completed; \$990, 35 days.
 Fellin and Webster, John E., two-story frames. Owner, La-
 Broe; architects, Thos & Balczynski; contractor, W.
 Plums; cost, \$10,250; signed, July 23; filed, July 24; \$2,0-
 framed; \$2,000 partitions set; \$1,700 outside on; \$2,000 a-
 tented; \$2,550, 35 days.

Geary street, Nos. 21, 23, 25, alterations etc. Owner, Andrew M. Davis; architect, Copeland & Pierce; contractors, Richardson & Gale; cost, \$1,640; signed, August 3; filed, August 3. Limit, 40 days; 75 per cent. as work progresses, balance 35 days.

Market, between Jones street and City Park Avenue, with
story brick buildings. Owners, L. & M. Sachs; architect,
Schmidt & Shea; contractor, R. Ringrose; cost, \$7,000;
sureties, W. Plums and D. Corkery; limit, sixty-five days;
signed, July 10; filed, July 12; \$1,750, rafters up; \$1,750,
brown coated; \$1,750, completed; \$1,750, thirty-five days

Owner, Mary E. Bishop,
contractor, John M. Ro-
ust 1; filed, August 2;
brown coated; \$700 white

Robertson; cost, \$2,900; signed, August 80 days; \$750 framed, \$750 e coated; \$700 completed.

San Pedro. Owner, William seven rooms on the
or, R. Summers, cost, \$4,000. near Market, to cost

just completed a cottage on south side of Milton street about \$2,200.

(Special to this Journal.)

Brick warehouse on San Pedro. Owner, William Buckley; contractor, R. Summers, cost, \$4,000.

John McLean has just completed a cottage of seven rooms on the south side of Milton street near Market, to cost about \$2,200.

P. F. Nelson is putting up a five room and basement cottage on the east side of Myrtle near Twenty-sixth, for A. Rankin to cost about \$1,500.

F. K. Shattuck has decided to tear down his old brick building on the south-west corner of Eighth street and Broadway early next spring, and he will erect a handsome modern building, at least three stories high, that will throw the Delger building in the shade. Mr. Shattuck is improving all his property, and is making many improvements in Oakland.

Buck & Judkins have contracted with Nettie Fife to erect a building on the corner of Eleventh avenue and East Sixteenth street, to cost \$2,350.

Dr. W. C. Harrington has begun the erection of a handsome modern two-story residence on the northeast corner of Twenty-first street and Tenth Avenue. Robert Smilie is the contractor and the cost will be about \$5,000.

It is reported that the Judson Iron Works will be extended. A twenty-four inch bar mill will be erected. This establishment will have the largest capacity of any on the coast.

It is stated on good authority that M. B. Curtis is soon to build a large business block on the corner of San Pablo and University avenues.

E. L. Clifton, who purchased two of the Wood's lots from Scottcher & Gottshall, is erecting thereon a \$2,500 cottage.

F. C. Brounger has contracted to erect a building on the southeast side of Fifteenth street, between Seventh and Eighth avenues, for Mrs. Mary B. Watson, the price named being \$1,550.

The contract for the erection of the new school building has been awarded to Thomas Downing of Mission San Jose, who has just completed the Warm Springs building. Contract price, \$4,300 for main building; out-buildings, \$95. Work will be commenced at once, and the contract calls for the completion of the house by October 10.

SAN JOSE.

J. D. Stewart has contracted to improve the residence of Frank Lacoste, on North Third street, for the sum of \$3,075. Theodore Lensen is the architect.

Proctor Wells' contract for building the Conservatory of Music, Chapel, Library and Art Gallery, at the University of the Pacific, was filed in the Recorder's office Wednesday. The price is \$28,490 and the building is to be completed by December 31, 1889, under a penalty of \$5 a day.

A contract between James Farney and Proctor Wells was filed in the Recorder's office Wednesday, wherein the latter agrees to build for the former on the northwest corner of Ninth and San Salvador streets on or before October 1, 1889, a frame dwelling to cost, \$2,752.

ALAMEDA.

Chas. Cuneo is having built a five room cottage on Benton street.

Mr. Hamilton will erect a large dwelling on Pacific avenue.

SANTA ROSA.

Col. McDonald is having erected a cottage on McDonald avenue.

Simpson & Roberts are erecting a factory building.

UKIAH.

Livernash & Dowling are having erected four brick stores. T. J. Ludwig is doing the work.

CAMP TAYLOR.

Jos. F. Bertrand is building a large hotel near this place. Wm. Schrof of San Francisco is the architect. It is being built by days work under the superintendency of Mr. Anderson and will cost nearly \$8,000.

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Contract let to J. P. Allen for the erection of the M. E. Church. Amount \$7,000; B. F. Price of Philadelphia is the architect.

Carpenters not Wanted.

Since the great Seattle fire, this office has received numerous letters from carpenters inquiring as to the chance for work up north. The following from the "Post Intelligencer" will give ample information.

Carpenter work in Seattle, since the fire, has not been sufficient to supply the demand made by that class of mechanics. Great numbers of them have come here in anticipation of immediately rebuilding another wooden city, and are now disappointed. Work in that line began to cease within one week after the conflagration because the wood structures for tents and tent-rafts were all finished within that time. Just as this work was completed, and before any new and substantial wooden structures had been commenced, steamers came in from San Francisco, laden with hundreds of carpenters. They also flocked hitherward from the east, as far as Maine and Massachusetts, only to discover that work here in their line was at a temporary stand still, lasting for weeks, and which even now is not sufficiently active to give employment to all these throngs that still continue to come. The condition as above stated being apparent, several builders, contractors and carpenters were called upon, for more specific information on the subject.

Mr. Henry Jones, contractor, said: "I never was in a town where more carpenters applied for work within a given time. Since the fire I have had from forty to fifty new applicants each day present themselves for employment. About fifty came up from San Francisco on the last steamer, but others also came from Minneapolis, Chicago and Milwaukee. I have had as many as fifteen apply to me within half an hour."

"It will require from thirty to ninety days for builders to complete plans, get stone basements in and blocks under way so as to require carpenters and several other classes of skilled mechanics. The rush of carpenters is premature. Mechanics should have more sense than to over-run a city on the very heels of a fire."

A. Paulsen, another contractor said:

"About fifty new carpenters every day call on me for work. Some of them appear to be willing to work for any wages; but I have no work for them, and if I had, I want men who stick up for their wages. I think that not more than one half of these floating men are carpenters, although they claim to be such. Besides, it is strange that the city should be so over-run with new carpenters when the proposition is to build the new business portion with brick and iron. More than 1,000 carpenters have come here since the fire."

"It is not carpenters that we require for handling the rough lumber in building new wharves and docks. It is an old saying that a hatchet and saw and one day's work on scantling makes some carpenters."

Owen Thomas, a builder, being called upon, said: "There are too many in the city who pretend to be carpenters, but not enough mechanics. A man carrying tools, and a carpenter, are often hoaxes of different colors. I suppose this fire will make 5,000 new carpenters. It is said that the building of the Coronado, at San Diego, made more men carpenters than the building of the Palace at San Francisco, which made many thousand. Perhaps the day is past for men to learn their trades as they used to do. Applications made on me last week for carpenter work, would average fifty a day. I hired many during the week and discharged about as many as I hired."

The way I have, from experience, found it to be, carpenters on the Pacific coast have more activity and energy in them than those from the east; but at most we have to hire them as they are and discharge them as we find them to be."

Mr. F. M. Wooderman who is constructing buildings at Gilman's wharf, says he has a daily average of forty carpenters, applying for work.

Mr. George Costen, was then called upon. He said: "The membership of the Seattle Carpenters' Union is steadily increasing, it being numerically stronger than any other labor organization in the city. We are willing and able to supply contractors with good carpenters, according to the nine-hour agreement entered into last spring by and between the union and contractors. Our organization is to assist good carpenters in getting employment and to prevent the incompetent from competing in our work. I think that local contractors should make a distinction in giving work to resident mechanics rather than those who come here among the floating population; and this will be the result if the building inspector requires good workmen, as well as good work in the buildings."

About one-third of our capable carpenters are thrown out of work here by reason of the presence of poor ones, that continue to come. Shortly after the fire some unscrupulous contractor, recently from the east, published a notice in the Chicago Inter-Ocean, stating that 4,000 carpenters were wanted at Seattle. While they might help a contractor to get work done cheaply, it works an injury to the resident mechanics. Out of the 1,500 carpenters now in this city, not over 35 per cent. are employed. Of these, there are probably 500 who are poor workmen. Wages is \$3.60 per day. Notwithstanding the influx, the best policy is to employ good men at nine hours and good wages."

The * California * Architect * and * Building * News.

VOLUME 10.

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NUMBER 9.

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

NOW IN ITS TENTH YEAR.

Established Jan. 1879.

Incorporated Jan. 1889.

+THE+

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ADVERTISING RATES FURNISHED ON APPLICATION.

SAN FRANCISCO, SEPTEMBER 15, 1889.

Mr. George H. Wolfe, having no further connection with this journal, correspondents will in future please address their communications to the *California Architect and Building News*, 408 California street, San Francisco, Cal.

IN the January number of this journal the announcement was made that a change in ownership had been made and that henceforth it would be managed by a company. This arrangement was satisfactory to some for the following reasons, as stated at the time.

"The publication of a journal devoted to the interests of architects and builders on the Pacific Coast is an important measure and is too self-evident to require the support of argument."

So far, in the history of California, the necessity for such a journal has been met only in the publication of the *CALIFORNIA ARCHITECT AND BUILDING NEWS*.

That journal, however, has hitherto been an individual enterprise, edited and managed by one still practicing the profession of architect, and therefore has not received that undivided and united support that would flow to a journal entirely free from all personal and professional entanglements."

Since January the journal has been under the management of an individual and has not dropped its personal character as was expected, neither has it assumed the tone which was hoped by many that it would take. It has been more of an advertising sheet than a medium of thought or intelligence.

With this number the architects themselves take control and will strive to make it a worthy organ of a great profession, to which all of the members, whether in this city, in Oregon, or elsewhere on the Pacific Coast, are invited to contribute any item on any subject relating to architecture or building.

Of this number we shall not say more than to ask your indulgence for any imperfections that may appear.

The regular monthly meeting of the San Francisco Chapter A. I. A. was held on Friday evening, September 6th. In the neighborhood of a dozen members were present. Messrs. Franklin Williams and D. L. Williams of Portland were elected fellow members. The amendment to the by-laws, changing the evening for the regular meeting from the first to the second Friday in the month, was carried. The election of officers was postponed for two weeks, to which time the meeting adjourned in the hopes of having a more numerous attendance.

THE trustees of the Lick fund advertised about two years ago for competitive designs for the statutory provided for in Mr. Lick's bequests, to be erected in this city, to commemorate the early epochs in the history of the State. The proposed monument was to be well worth \$100,000, and the premiums offered by the trustees were the execution of the work to the first competitor, \$500 to the second, and \$300 to the third.

Some twenty-five designs were submitted, but after many months delay the trustees have finally decided that none of the projects were appropriate for the purpose, and have now instituted a second competition, selecting the names of four firms and individuals, who are to submit designs and models of the same, for which the trustees agree to pay each competitor the sum of \$750.

We are glad to see that the Lick trustees have learned through the failure of their first competition, that to secure a design on which sufficient time and study have been bestowed to obtain a satisfactory result, it is necessary to assure the designer adequate compensation for that time and study.

It is very evident that a premium not commensurate with the importance of the project will tend to attract designs, whose artistic merit correspond rather to the amount of the premiums offered than to the importance of the proposed work, for no artist or architect of standing is desirous of risking his time, which is money, on such an uncertain proposition as the ordinary competition.

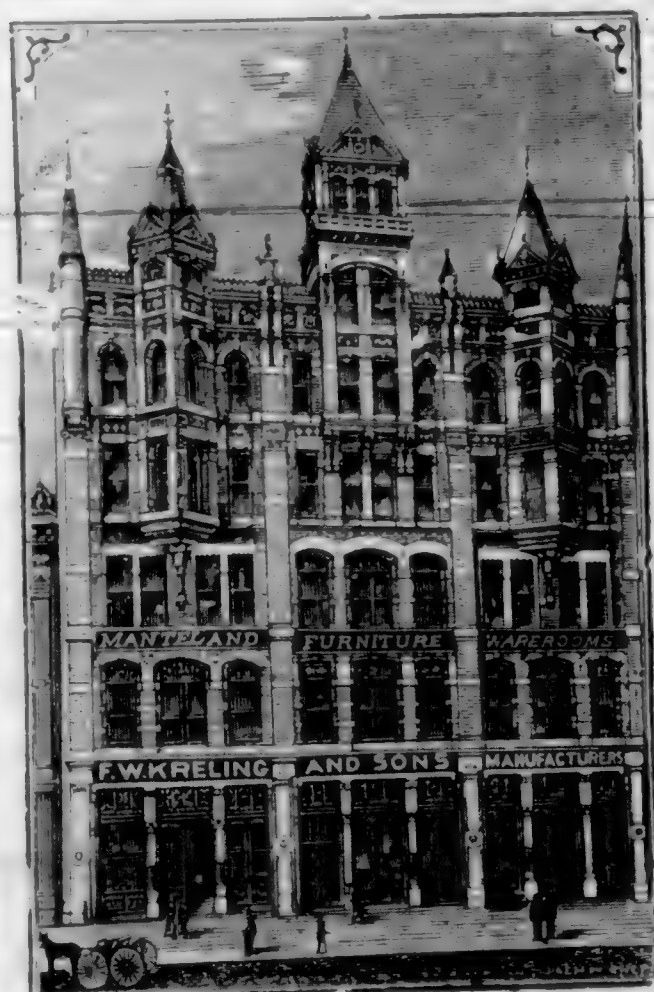
It goes without argument, however, that where designs are called for, and the results do not come up to expectations, it is not right to refuse to pay the proffered prizes to those whose trust in the faith of the management was sufficient to lead them to enter the race.

In this connection we deem it appropriate, and of interest to our readers, to publish the following schedule of terms adopted by the American Institute of Architects nearly twenty years ago, and we desire to urge the justice and equity of the principles involved upon the consideration of public and private societies, and individuals who may in the future invite our brethren to enter into honorable competition.

Schedule of terms regulating open and close competitions for architectural works, adopted by the American Institute of Architects in convention assembled, November 8th and 9th, 1870, and recommended to all architects building committees and proprietors throughout the country.

1. The instructions must not require more drawings or estimates than are necessary in order clearly to explain the design, and should require that all the designs submitted be drawn to a uniform scale, which must be clearly defined, and that all perspectives required to be drawn to the same scale as the geometrical drawings, and on a plane at the corner of the building nearest the point of sight; a deviation from which will cause their rejection.

2. In case the amount to be expended is limited, the instructions must state that an excess of ten per cent on the expense of executing any design, over and above the sum mentioned, will exclude it from competition, the amount of expense to be determined by the professional experts in the jury; and in case the amount to be expended is not fixed, then the competitor may use his own discretion as to the costliness of the design which he makes.



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SAN FRANCISCO, CAL.

3. A design will be excluded from the competition, if sent in after the stated period, and if it contains deviations from the instructions. If, from any of the above reasons, all submitted designs are rejected, then the jury is bound to publish the reasons which led to its verdict.

4. The period given for preparing the design must be long enough, not only for perfecting it and preparing the necessary drawings, but must make some allowance for the ordinary occupations of competitors. An explicit statement must be given as to the time when the decision on the merits of the designs is to be rendered, and that all designs shall be returned to their authors. An architect's drawings are his own private property, unless paid for, in which case they are for the sole use and benefit of his client; but the actual drawings still belong to the architect who made them.

5. The designs should be submitted to a jury of experts, whose decision is to be final. One half of the jury should be architects, and in the case of an open competition for a public building, it should be selected by the building committee or owner. The jury must be named in the instructions which the committee shall have sanctioned before publication. No person can be competent to serve as juror who submits a design, or is in any way interested in any design submitted, or who has not renounced all intention of participating in the execution of the work.

6. All designs submitted, in open competition for public buildings, should be publicly exhibited two weeks before the decision is made.

7. In the case of open competitions the first premium must not be less than the amount which the architect would have received had there been no competition, and at least an equal amount should be divided among the other competitors, according to the merits of the designs submitted.

8. It is recommended that, in close competitions, wherein the number of competitors is limited, a sum equal to the full value of one design be divided equally among the authors of all except the premiated design, which shall be compensated for as provided in the last preceding rule.

9. The instructions must state that in case the building is erected after any of the designs submitted in competition, it must be given in charge of the author of the first premiated design, who is to be employed at the usual compensation; and if any other designs, or parts of designs, are used, it can be done only with the consent of their authors; and they must be compensated for the full value of the designs or parts of designs used, irrespective of the premiums that may have been awarded.

10. The premiums must be awarded, under all circumstances, for the designs which may have been admitted in competition.

11. It is recommended that, in the schemes of competition, it shall be provided that the names of the competitors shall not be known to the jury.

Academy of Sciences.

The engraving of the new building for the California Academy of Sciences which appears in this issue of the ARCHITECT was to have been printed with the August number, but by the carelessness of a workman the cut was destroyed, and the view which is now inserted has been made the second time. This view represents the front of the new California Academy of Sciences Building now in course of construction on Market street, between Fourth and Fifth. It has been prepared with great care from drawings made by Messrs. Percy and Hamilton, constructing architects.

The structure to which this front belongs, will be one of the finest and most substantial in the city. It nearly covers the whole of a trapezoid, the two parallel sides of which measure respectively 275 and 195 feet; the side at right angles which fronts on Market street, being 80 feet. It will cost over \$300,000 and it will be built of the best stone, brick, iron and other materials to be found in the market.

The building is divided into two different structures; one facing on Market street, covering an area of about 80x86 feet, being a commercial block; the other is devoted to the rooms of the Academy. The former is seven stories high, the Academy six. Between the two structures there is a court 80x27 feet.

The California Academy of Sciences was organized on April 4, 1853. None of the charter members are now alive. It had a very precarious existence for a great many years; and had not the late philanthropist James Lick so munificently endowed it, first with the lot on Market street, valued at over \$300,000 and

afterwards with one half of the residue of his valuable estate, which will nearly reach half a million dollars, it is doubtful if the Academy of Sciences could have for many years moved from the dilapidated building where it is now located, where a gradual deterioration is going on in everything combined in a building so thoroughly saturated with water as that building is, where dampness constantly sweats from its walls, where moisture constantly burdens the atmosphere and where moss and mould and mildew lurk in every crack and cranny of the building attacking and damaging every perishable thing therein contained. The occupation of the building by those whose business constantly calls them there is only rendered tolerable by constant fires in the stove all the year around.

Fortunately due to the generosity of Mr. Lick and the energy of the present Board of Trustees, in the course of the next year the quarters of the Academy will be in one of the best buildings erected for that purpose in America.

The former Board of Trustees were averse to incurring a large debt in order to improve the valuable lot owned by the Academy on Market street, but the present Board thinks it is poor policy to allow the collections to go to ruin for lack of proper rooms and deprive the members of the Academy of suitable lecture rooms, library, museum and other departments of such an institution; besides losing the handsome revenue derived from the rental of the commercial block so advantageously situated as the one owned by the society.

At the beginning of last year the President of the Board of Trustees and the prudential committee reported to the Academy the intention of the Board of Trustees to improve as soon as possible the property on Market street. The Council of the Academy and the Academy in one of its meetings passed resolutions indorsing the resolution of the Board of Trustees. Satisfactory arrangements having been made by which the Lick State Trustees would advance to the Academy of Sciences all the necessary funds to erect the contemplated building, steps were taken at once to carry out the project.

In May of last year a circular was sent to many architects inviting them to present plans for an Academy of Sciences building to conform with certain specified requirements. The firms of J. M. Curtis, W. F. Smith, Percy & Hamilton, Salfield & Kohlberg and J. J. & T. D. Newsom responded to the invitation and offered plans which were opened on June 18, 1888.

It was found that all the plans, though meritorious and conscientiously executed did not answer the requirements of the Academy and it was resolved by the Board of Trustees to accept them all but adopt none.

The order in which the plans were accepted was: First, those of J. M. Curtis; second, W. F. Smith's; third, Percy & Hamilton's; fourth, Salfield & Kohlberg's; and fifth, J. J. & T. D. Newsom's.

A committee composed of Messrs. Davis and Molera of the Board of Trustees and Dr. Harkness, president of the Academy was appointed to take from the plans submitted those features best adapted to the needs of the Academy and supplement them with those they themselves might suggest. Also to recommend who among the competing architects should be appointed supervising architect.

After many consultations the Committee prepared the general plans. Mr. Davis made the plans for the Commercial building, Dr. Harkness the distribution of rooms for the Academy, and Mr. Molera the fronts of the building and the general plans. These plans were agreed to and submitted by all the members of the Committee. They differed, however, in the appointment of the supervising architect. Mr. Davis recommending Mr. Curtis while Messrs. Harkness and Molera recommended the firm of Percy and Hamilton.

The Board of Trustees adopted the recommendation of the majority and Messrs. Percy & Hamilton were appointed the architects "to prepare the necessary drawings and specifications to erect the Academy's building and take the general plans prepared by the committee on plans, composed by Messrs. Molera Davis and Harkness as the basis of their operations."

The general plans have been changed in many particulars, specially the front of the building. The late Mr. Lick in his deed of the Market street property, and subsequently on the deed of trust, expressed his desire that the Academy's building should be of a classical design. In deference to that wish and according to their own ideas the committee designed the front of the Academy with classical elements. The architects have changed it for a front on the so-called Romanesque style, the reasons for the changes are that it is difficult to design buildings of more than two

or three stories high with classical lines. For an Academy of Sciences, it would have been better to adopt a classical front than one in a style the best recommendation of which being its novelty. That buildings with classical orders and several stories high can be built with handsome fronts is numerously exemplified both in Europe and in this country, and conspicuously so in the recently completed Drexel building in New York ten stories high, which is one of the grandest and and handsomest buildings in America. However, the Academy of Sciences front is a fine one and in combination with the splendid materials used in its construction, will do credit both to the Association and the architects.

E. N. SHAW, in an article published in the *Architect* (a London periodical) says the contents of a building have undoubtedly much to do with its safety or danger, but in estimating the whole risk, the materials of which the building is constructed must never be put out of consideration. Every building cannot be erected with brick column and groined arches, but there is a vast range between these and the miserable cast iron pots too commonly to be seen, many of which have been put in without having been tested for strength even at the ordinary temperature of the atmosphere, much less at that of a fire. The following illustration may be given of a fact well known to all firemen of experience, but seldom proved by demonstration for those not specially interested.

A fire occurred in a warehouse of enormous proportions and raged with great fury for five hours, at the end of which time it was extinguished, and a very large proportion of the building and its contents saved. The warehouse was constructed of brick walls; it had wooden floors supported on wooden beams, which in their turn were carried on wooden story posts about 12 inches thick, and although serious damage was done, not one portion of the heavy wood-work was destroyed. After the fire, the proprietors allowed the chief of the fire brigade to remove one of the story posts, with a section of the beams and other parts surrounding it above and below.

This post had been subjected to the full action of the fire during the whole of its duration, as already mentioned, or making full allowance for everything, including the delay of the fire attacking the particular spot on which it stood, and the time at which the cooling process commenced, certainly not less than four and a half hours. As large quantities of water had been used, and it was probable that everything had been saturated, the wood was carefully dried before a strong fire until not a trace of moisture remained in it. It was then set on end in an open yard, exactly as it had stood in the warehouse, with the pedestal underneath, the cap above, and the beam across the cap, more than a ton of shavings, light wood and heavy wood were placed around it, and after the whole heap was saturated with petroleum, a light was applied to it, and after this, large quantities of petroleum and turpentine were pumped on it. At the end of two and a half hours the post, beam and other parts were withdrawn from the fire, and within a few minutes from the time they were withdrawn they ceased to burn. A few feet were then sawn off horizontally, at that part which had suffered most from the flames, and afterward the same piece was split longitudinally with steel wedges, in order to examine its condition.

The post was of pitch pine, about the most inflammable wood known, and yet after exposure for seven hours to fire, the fury of which could not be exceeded except in blast furnaces, it contained within a quantity of perfectly uninjured and apparently fresh wood, probably capable of supporting the whole weight the original post was designed to carry. Immediately after the saw cut, and again after the cleating with steel wedges, the centre was carefully examined, and found to be just perceptibly warm to the touch, but nothing more, thus proving that the fibre, in which the strength lay, was quite uninjured.

A new work has been laid on our table entitled: A Manual of Machine Construction for Engineers, Draughtsmen and Mechanics, by John Richards, Esq. The summary of contents are: Machine Design, The Transmission of Power, Steam Machinery, Hydraulics, Process and Properties, Tables and Memoranda. It is well illustrated with clean cut drawings of machinery on a large scale, and contains tables and formulae seldom found in technical works, the use of which will greatly lighten the office labor of the engineer. It is bound in strong, flexible covers and so arranged that it can be used with one hand while working with the other. Publisher's price, \$5.00.

AT the recent meeting of the National Electric Light Association at Niagara Falls, considerable time was taken up by the reading of papers and the discussions of the requirements for buildings intended for this purpose. Mr. M. D. Law read a paper, giving his view of certain necessary details for a model building, which should be of brick or stone, substantial, and not more than two stories in height, and as near fire-proof as possible. The boiler room should be located on the ground floor with plenty of ventilation, and the fire room cool and comfortable. It being necessary to keep engines, shafting and dynamos as cool as possible good ventilation should be provided therefore. The dynamo room should be directly over the shafting lines, well lighted and the ventilation perfect. The roof should be constructed without intermediate posts or supports, and of sufficient height and strength to support an overhead track, so that dynamos or armatures can be hoisted and carried over the ones that may be running. A cupola should be provided with window ventilators extending the full length of the two sides, and so arranged as to be under the control of the machine man; the line wires being run from this cupola as required. A store room of good size should be provided and fitted up with closets, drawers and shelves. The workshop should be suitable for lathe and benches.

Mr. G. T. Henthorn gave a detailed description of a new station building at Providence, R. I.

Those wishing to continue the subject will find a full description in the issue of August 17th of the *Western Electrician* of Chicago.

THE Kearny street property owners and business men have petitioned the Board of Supervisors to have that street paved with bituminous rock. The Street Committee of the Board has approved the petition and ordered specifications for the work to be prepared. The laying of this pavement on one of our principal streets will be a long step in the right direction, for besides the advantage of noiselessness this pavement requires but a fraction of the traction power necessary on the uneven cobbles and basalt blocks with which our main business streets are now disfigured.

IN new apartments. The Technical Society and the Astronomical Society of the Pacific Coast have rented the large rooms adjoining the offices of this Journal. These spacious rooms are light, airy and convenient, and will be open at all times of the day to the membership of these societies. We congratulate them on their new departure and welcome them to all the benefits.

Magnitude in Architecture.

MAGNITUDE is the great object and result of design, and this quality is only to be attained by the fine adjustment of relative proportions in magnitude and order.

Architecture (says Aristotle) consists in magnitude and order. The works of man, compared with those of Nature, display our insignificance. The Pyramids, seen in the clear sky of Egypt, or St. Peter's at Rome, are proverbially disappointing to the first gaze of the beholder; it is only after he has instituted comparisons and measurements that he becomes sensible of the greatness of these human efforts—and his memory will supply him with many instances in which objects of inferior dimensions have surpassed them in impression of magnitude upon his mind. It is plain, therefore, that art alone can produce the full effect of magnitude, and to this the architect should direct all his skill; the ancients will be found consummate masters in this as well as in every other department of our art. It is, indeed, a fine art which enables the accomplished artist to raise ideas of magnitude and grandeur of composition on a piece of paper no bigger than your hand; while a less able one will cover a vast canvas without executing any comparable notions. Worthy of all inquiry and solicitude is such an art, for is the whole art of design and proportion. Pliny cites a statue of Hercules, so small that it might be lifted by the hand, which, however, conveyed more grandeur, magnitude and strength to the mind of the observer than a Colossus would have done. How great must have been the science of the master! And if, with such small means, he could effect the mind with these impressions, how great the economy of cost and material to the employer!—C. R. Cockerel, in *The Architect*.

P. F. Nelson is putting up a five room and basement cottage on the east side of Myrtle near Twenty sixth, for A. Rankin to cost about \$1,500.

F. K. Shattuck has decided to tear down his old brick building on the south-west corner of Eighth street and Broadway early next spring, and he will erect a handsome modern building, at least three stories high, that will throw the Delger building in the shade. Mr. Shattuck is improving all his property, and is making many improvements in Oakland.

Back & Judkins have contracted with Nettie Fife to erect a building on the corner of Eleventh avenue and East Sixteenth street, to cost \$2,350.

Dr. W. C. Harrington has begun the erection of a handsome modern two-story residence on the northeast corner of Twenty-first street and Tenth Avenue. Robert Snellie is the contractor and the cost will be about \$5,000.

It is reported that the Judson Iron Works will be extended. A twenty-four inch bar mill will be erected. This establishment will have the largest capacity of any on the coast.

It is stated on good authority that M. B. Curtis is soon to build a large business block on the corner of San Pablo and University avenues.

E. L. Clifton, who purchased two of the Wood's lots from Scotchler & Gottshall, is erecting thereon a \$2,500 cottage.

F. C. Brougher has contracted to erect a building on the southeast side of Fifteenth street, between Seventh and Eighth avenues, for Mrs. Mary B. Watson, the price named being \$1,550.

The contract for the erection of the new school building has been awarded to Thomas Downing of Mission San Jose, who has just completed the Warm Springs building. Contract price, \$4,300 for main building; out-buildings, \$95. Work will be commenced at once, and the contract calls for the completion of the house by October 10.

SAN JOSE.

J. D. Stewart has contracted to improve the residence of Frank Lacoste, on North Third street, for the sum of \$3,675. Theodore Lensen is the architect.

Proctor Wells' contract for building the Conservatory of Music, Chapel, Library and Art Gallery, at the University of the Pacific, was filed in the Recorder's office Wednesday. The price is \$28,499 and the building is to be completed by December 31, 1889, under a penalty of \$5 a day.

A contract between James Farney and Proctor Wells was filed in the Recorder's office Wednesday, wherein the latter agrees to build for the former on the northwest corner of Ninth and San Salvador streets on or before October 1, 1889, a frame dwelling to cost, \$2,752.

ALAMEDA.

Chas. Caneco is having built a five room cottage on Benton street.

Mr. Hamilton will erect a large dwelling on Pacific avenue.

SANTA ROSA.

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Carpenter work in Seattle, since it not been sufficient to supply the demand that class of mechanics. Great numbers have come here in anticipation of rebuilding another wooden city, and are appointed. Work in that line began within one week after the conflagration the wood structures for tents and tent all finished within that time. Just as was completed, and before any new a tial wooden structures had been a steamers came in from San Francisco with hundreds of carpenters. They hitherward from the east, as far as Massachusetts, only to discover that in their line was at a temporary standing for weeks, and which even now is not active to give employment through that still continue to come. dition as above stated being apparent builders, contractors and carpenters upon, for more specific information on t Mr. Henry Jones, contractor, said:

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NUMBER 9.

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NOW IN ITS TENTH YEAR.

IRREGULAR PAGINATION

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without argument, however, that where designs are, and the results do not come up to expectations, it is t to refuse to pay the proffered prizes to those whose he faith of the management was sufficient to lead them he race.

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1. The instructions must not require more drawings or estimates than are necessary in order clearly to explain the design, and should require that all the designs submitted be drawn to a uniform scale, which must be clearly defined, and that all perspectives required to be drawn to the same scale as the geometrical drawings, and on a plane at the corner of the building nearest the point of sight; a deviation from which will cause their rejection.

2. In case the amount to be expended is limited, the instructions must state that an excess of ten per cent on the expense of executing any design, over and above the sum mentioned, will exclude it from competition, the amount of expense to be determined by the professional experts in the jury; and in case the amount to be expended is not fixed, then the competitor may use his own discretion as to the costliness of the design which he makes.

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SAN FRANCISCO, CAL.

P. F. Nelson is putting up a five room and basement cottage on the east side of Myrtle near Twenty sixth, for A. Rankin to cost about \$1,500.

F. K. Shattuck has decided to tear down his old brick building on the south-west corner of Eighth street and Broadway early next spring, and he will erect a handsome modern building, at least three stories high, that will throw the Delger building in the shade. Mr. Shattuck is improving all his property, and is making many improvements in Oakland.

Buck & Jenkins have contracted with Nettie Fife to erect a building on the corner of Eleventh avenue and East Sixteenth street, to cost \$2,350.

Dr. W. C. Harrington has begun the erection of a handsome modern two-story residence on the northeast corner of Twenty-first street and Tenth Avenue. Robert Smith is the contractor and the cost will be about \$5,000.

It is reported that the Judson Iron Works will be extended. A twenty-four inch bar mill will be erected. This establishment will have the largest capacity of any on the coast.

It is stated on good authority that M. B. Curtis is soon to build a large business block on the corner of San Pablo and University avenues.

E. L. Clifton, who purchased two of the Wood's lots from Scotchler & Gottshall, is erecting thereon a \$2,500 cottage.

F. C. Broughner has contracted to erect a building on the southeast side of Fifteenth street, between Seventh and Eighth avenues, for Mrs. Mary B. Watson, the price named being \$1,550.

The contract for the erection of the new school building has been awarded to Thomas Downing of Mission San Jose, who has just completed the Warm Springs building. Contract price, \$4,300 for main building; out-buildings, \$93. Work will be commenced at once, and the contract calls for the completion of the house by October 10.

SAN JOSE.

J. D. Stewart has contracted to improve the residence of Frank Lacoste, on North Third street, for the sum of \$3,675. Theodore Lensen is the architect.

Proctor Wells' contract for building the Conservatory of Music, Chapel, Library and Art Gallery, at the University of the Pacific, was filed in the Recorder's office Wednesday. The price is \$28,490 and the building is to be completed by December 31, 1889, under a penalty of \$5 a day.

A contract between James Farney and Proctor Wells was filed in the Recorder's office Wednesday, wherein the latter agrees to build for the former on the northwest corner of Ninth and San Salvador streets on or before October 1, 1889, a frame dwelling to cost, \$2,752.

ALAMEDA.

Chas. Cuneo is having built a five room cottage on Benton street.

Mr. Hamilton will erect a large dwelling on Pacific avenue.

SANTA ROSA.

Col. McDonald is having erected a cottage on McDonald avenue.

Simpson & Roberts are erecting a factory building.

UKIAH.

Livernash & Dowling are having erected four brick stores. T. J. Ludwig is doing the work.

CAMP TAYLOR.

Jos. F. Bertrand is building a large hotel near this place. Wm. Schrof of San Francisco is the architect. It is being built by days work under the superintendency of Mr. Anderson and will cost nearly \$8,000.

MODESTO.

Contract let to J. P. Allen for the erection of the M. E. Church. Amount, \$7,000; B. F. Price of Philadelphia is the architect.

Carpenters not Wanted.

Since the great Seattle fire, this office has received numerous letters from carpenters inquiring as to the chance for work up north. The following from the "Post Intelligencer" will give ample information.

Carpenter work in Seattle, since the fire, has not been sufficient to supply the demand made by that class of mechanics. Great numbers of them have come here in anticipation of immediately rebuilding another wooden city, and are now disappointed. Work in that line began to cease within one week after the conflagration because the wood structures for tents and tent-rafts were all finished within that time. Just as this work was completed, and before any new and substantial wooden structures had been commenced, steamers came in from San Francisco, laden with hundreds of carpenters. They also flocked hitherward from the east, as far as Maine and Massachusetts, only to discover that work here in their line was at a temporary standstill, lasting for weeks, and which even now is not sufficiently active to give employment to all these throngs that still continue to come. The condition as above stated being apparent, several builders, contractors and carpenters were called upon, for more specific information on the subject. Mr. Henry Jones, contractor, said:

"I never was in a town where more carpenters applied for work within a given time. Since the fire I have had from forty to fifty new applicants each day present themselves for employment. About fifty came up from San Francisco on the last steamer, but others also came from Minneapolis, Chicago and Milwaukee. I have had as many as fifteen apply to me within half an hour."

"It will require from thirty to ninety days for builders to complete plans, get stone basements in and blocks under way so as to require carpenters and several other classes of skilled mechanics. The rush of carpenters is premature. Mechanics should have more sense than to over-run a city on the very heels of a fire."

A. Paulsen, another contractor said:

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The way I have, from experience, found it to be, carpenters on the Pacific coast have more activity and energy in them than those from the east; but at most we have to hire them as they are and discharge them as we find them to be."

Mr. F. M. Wooderman who is constructing buildings at Gilman's wharf, says he has a daily average of forty carpenters, applying for work.

Mr. George Costen, was then called upon. He said: "The membership of the Seattle Carpenters' Union is steadily increasing, it being numerically stronger than any other labor organization in the city. We are willing and able to supply contractors with good carpenters, according to the nine-hour agreement entered into last spring by and between the union and contractors. Our organization is to assist good carpenters in getting employment and to prevent the incompetent from competing in our work. I think that local contractors should make a distinction in giving work to resident mechanics rather than those who come here among the floating population; and this will be the result if the building inspector requires good workmen, as well as good work in the buildings."

About one-third of our capable carpenters are thrown out of work here by reason of the presence of poor ones, that continue to come. Shortly after the fire some unscrupulous contractor, recently from the east, published a notice in the Chicago Inter-Ocean, stating that 4,000 carpenters were wanted at Seattle. While they might help a contractor to get work done cheaply, it works an injury to the resident mechanics. Out of the 1,500 carpenters now in this city, not over 35 per cent. are employed. Of these, there are probably 500 who are poor workmen. Wages is \$3.60 per day. Notwithstanding the influx, the best policy is to employ good men at nine hours and good wages."

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ADVERTISING RATES FURNISHED ON APPLICATION.

SAN FRANCISCO, SEPTEMBER 15, 1889.

Mr. George H. Wolfe, having no further connection with this journal, correspondents will in future please address their communications to the *California Architect and Building News*, 408 California street, San Francisco, Cal.

IN the January number of this journal the announcement was made that a change in ownership had been made and that henceforth it would be managed by a company. This arrangement was satisfactory to some for the following reasons, as stated at the time.

"The publication of a journal devoted to the interests of architects and builders on the Pacific Coast is an important measure and is too self-evident to require the support of argument.

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Some twenty-five designs were submitted, but after many months delay the trustees have finally decided that none of the projects were appropriate for the purpose, and have now instituted a second competition, selecting the names of four firms and individuals, who are to submit designs and models of the same, for which the trustees agree to pay each competitor the sum of \$750.

We are glad to see that the Lick trustees have learned through the failure of their first competition, that to secure a design on which sufficient time and study have been bestowed to obtain a satisfactory result, it is necessary to assure the designer adequate compensation for that time and study.

It is very evident that a premium not commensurate with the importance of the project will tend to attract designs, whose artistic merit correspond rather to the amount of the premiums offered than to the importance of the proposed work, for no artist or architect of standing is desirous of risking his time, which is money, on such an uncertain proposition as the ordinary competition.

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3. A design will be excluded from the competition, if sent in after the stated period, and if it contains deviations from the instructions. If, from any of the above reasons, all submitted designs are rejected, then the jury is bound to publish the reasons which led to its verdict.

4. The period given for preparing the design must be long enough, not only for perfecting it and preparing the necessary drawings, but must make some allowance for the ordinary occupations of competitors. An explicit statement must be given as to the time when the decision on the merits of the designs is to be rendered, and that all designs shall be returned to their authors. An architect's drawings are his own private property, unless paid for, in which case they are for the sole use and benefit of his client; but the actual drawings still belong to the architect who made them.

5. The designs should be submitted to a jury of experts, whose decision is to be final. One half of the jury should be architects, and in the case of an open competition for a public building, it should be selected by the building committee or owner. The jury must be named in the instructions which the committee shall have sanctioned before publication. No person can be competent to serve as juror who submits a design, or is in any way interested in any design submitted, or who has not renounced all intention of participating in the execution of the work.

6. All designs submitted, in open competition for public buildings, should be publicly exhibited two weeks before the decision is made.

7. In the case of open competitions the first premium must not be less than the amount which the architect would have received had there been no competition, and at least an equal amount should be divided among the other competitors, according to the merits of the designs submitted.

8. It is recommended that, in close competitions, wherein the number of competitors is limited, a sum equal to the full value of one design be divided equally among the authors of all except the premiated design, which shall be compensated for as provided in the last preceding rule.

9. The instructions must state that in case the building is erected after any of the designs submitted in competition, it must be given in charge of the author of the first premiated design, who is to be employed at the usual compensation; and if any other designs, or parts of designs, are used, it can be done only with the consent of their authors; and they must be compensated for the full value of the designs or parts of designs used, irrespective of the premiums that may have been awarded.

10. The premiums must be awarded, under all circumstances, for the designs which may have been admitted in competition.

11. It is recommended that, in the schemes of competition, it shall be provided that the names of the competitors shall not be known to the jury.

Academy of Sciences.

The engraving of the new building for the California Academy of Sciences which appears in this issue of the ARCHITECT was to have been printed with the August number, but by the carelessness of a work-man the cut was destroyed, and the view which is now inserted has been made the second time. This view represents the front of the new California Academy of Sciences Building now in course of construction on Market street, between Fourth and Fifth. It has been prepared with great care from drawings made by Messrs. Percy and Hamilton, constructing architects.

The structure to which this front belongs, will be one of the finest and most substantial in the city. It nearly covers the whole of a trapezoid, the two parallel sides of which measure respectively 275 and 195 feet; the side at right angles which fronts on Market street, being 80 feet. It will cost over \$300,000 and it will be built of the best stone, brick, iron and other materials to be found in the market.

The building is divided into two different structures; one facing on Market street, covering an area of about 80x86 feet, being a commercial block; the other is devoted to the rooms of the Academy. The former is seven stories high, the Academy six. Between the two structures there is a court 80x27 feet.

The California Academy of Sciences was organized on April 4, 1853. None of the charter members are now alive. It had a very precarious existence for a great many years; and had not the late philanthropist James Lick so munificently endowed it, first with the lot on Market street, valued at over \$300,000 and

afterwards with one half of the residue of his valuable estate, which will nearly reach half a million dollars, it is doubtful if the Academy of Sciences could have for many years moved from the dilapidated building where it is now located, where a gradual deterioration is going on in everything combined in a building so thoroughly saturated with water as that building is, where dampness constantly sweats from its walls, where moisture constantly burdens the atmosphere and where moss and mould and mildew lurk in every crack and cranny of the building attacking and damaging every perishable thing therein contained. The occupation of the building by those whose business constantly calls them there is only rendered tolerable by constant fires in the stove all the year around.

Fortunately due to the generosity of Mr. Lick and the energy of the present Board of Trustees, in the course of the next year the quarters of the Academy will be in one of the best buildings erected for that purpose in America.

The former Board of Trustees were averse to incurring a large debt in order to improve the valuable lot owned by the Academy on Market street, but the present Board thinks it is poor policy to allow the collections to go to ruin for lack of proper rooms and deprive the members of the Academy of suitable lecture rooms, library, museum and other departments of such an institution; besides losing the handsome revenue derived from the rental of the commercial block so advantageously situated as the one owned by the society.

At the beginning of last year the President of the Board of Trustees and the prudential committee reported to the Academy the intention of the Board of Trustees to improve as soon as possible the property on Market street. The Council of the Academy and the Academy in one of its meetings passed resolutions indorsing the resolution of the Board of Trustees. Satisfactory arrangements having been made by which the Lick State Trustees would advance to the Academy of Sciences all the necessary funds to erect the contemplated building, steps were taken at once to carry out the project.

In May of last year a circular was sent to many architects inviting them to present plans for an Academy of Sciences building to conform with certain specified requirements. The firms of J. M. Curtis, W. F. Smith, Percy & Hamilton, Salfeld & Kohlberg and J. J. & T. D. Newsom responded to the invitation and offered plans which were opened on June 18, 1888.

It was found that all the plans, though meritorious and conscientiously executed did not answer the requirements of the Academy and it was resolved by the Board of Trustees to accept them all but adopt none.

The order in which the plans were accepted was: First, those of J. M. Curtis; second, W. F. Smith's; third, Percy & Hamilton's; fourth, Salfeld & Kohlberg's; and fifth, J. J. & T. D. Newsom's.

A committee composed of Messrs. Davis and Molera of the Board of Trustees and Dr. Harkness, president of the Academy was appointed to take from the plans submitted those features best adapted to the needs of the Academy and supplement them with those they themselves might suggest. Also to recommend who among the competing architects should be appointed supervising architect.

After many consultations the Committee prepared the general plans. Mr. Davis made the plans for the Commercial building, Dr. Harkness the distribution of rooms for the Academy, and Mr. Molera the fronts of the building and the general plans. These plans were agreed to and submitted by all the members of the Committee. They differed, however, in the appointment of the supervising architect. Mr. Davis recommending Mr. Curtis while Messrs. Harkness and Molera recommended the firm of Percy and Hamilton.

The Board of Trustees adopted the recommendation of the majority and Messrs. Percy & Hamilton were appointed the architects "to prepare the necessary drawings and specifications to erect the Academy's building and take the general plans prepared by the committee on plans, composed by Messrs. Molera Davis and Harkness as the basis of their operations."

The general plans have been changed in many particulars, specially the front of the building. The late Mr. Lick in his deed of the Market street property, and subsequently on the deed of trust, expressed his desire that the Academy's building should be of a classical design. In deference to that wish and according to their own ideas the committee designed the front of the Academy with classical elements. The architects have changed it for a front on the so-called Romanesque style, the reasons for the changes are that it is difficult to design buildings of more than two

or three stories high with classical lines. For an Academy of Sciences, it would have been better to adopt a classical front than one in a style the best recommendation of which being its novelty. That buildings with classical orders and several stories high can be built with handsome fronts is numerously exemplified both in Europe and in this country, and conspicuously so in the recently completed Drexel building in New York ten stories high, which is one of the grandest and and handsomest buildings in America. However, the Academy of Sciences front is a fine one and in combination with the splendid materials used in its construction, will do credit both to the Association and the architects.

E. N. SHAW, in an article published in the *Architect* (a London periodical) says the contents of a building have undoubtedly much to do with its safety or danger, but in estimating the whole risk, the materials of which the building is constructed must never be put out of consideration. Every building cannot be erected with brick column and groined arches, but there is a vast range between these and the miserable cast iron pots too commonly to be seen, many of which have been put in without having been tested for strength even at the ordinary temperature of the atmosphere, much less at that of a fire. The following illustration may be given of a fact well known to all firemen of experience, but seldom proved by demonstration for those not specially interested.

A fire occurred in a warehouse of enormous proportions and raged with great fury for five hours, at the end of which time it was extinguished, and a very large proportion of the building and its contents saved. The warehouse was constructed of brick walls; it had wooden floors supported on wooden beams, which in their turn were carried on wooden story posts about 12 inches thick, and, although serious damage was done, not one portion of the heavy wood-work was destroyed. After the fire, the proprietors allowed the chief of the fire brigade to remove one of the story posts, with a section of the beams and other parts surrounding it above and below.

This post had been subjected to the full action of the fire during the whole of its duration, as already mentioned, or, making full allowance for everything, including the delay of the fire attacking the particular spot on which it stood, and the time at which the cooling process commenced, certainly not less than four and a half hours. As large quantities of water had been used, and it was probable that everything had been saturated, the wood was carefully dried before a strong fire until not a trace of moisture remained in it. It was then set on end in an open yard, exactly as it had stood in the warehouse, with the pedestal underneath, the cap above, and the beam across the cap, more than a ton of shavings, light wood and heavy wood were placed around it, and after the whole heap was saturated with petroleum, a light was applied to it, and after this, large quantities of petroleum and turpentine were pumped on it. At the end of two and a half hours the post, beam and other parts were withdrawn from the fire, and within a few minutes from the time they were withdrawn they ceased to burn. A few feet were then sawn off horizontally, at that part which had suffered most from the flames, and afterward the same piece was split longitudinally with steel wedges, in order to examine its condition.

The post was of pitch pine, about the most inflammable wood known, and yet after exposure for seven hours to fire, the fury of which could not be exceeded except in blast furnaces, it contained within a quantity of perfectly uninjured and apparently fresh wood, probably capable of supporting the whole weight the original post was designed to carry. Immediately after the saw cut, and again after the cleating with steel wedges, the centre was carefully examined, and found to be just perceptibly warm to the touch, but nothing more, thus proving that the fibre, in which the strength lay, was quite uninjured.

A new work has been laid on our table entitled: A Manual of Machine Construction for Engineers, Draughtsmen and Mechanics, by John Richards, Esq. The summary of contents are: Machine Design, The Transmission of Power, Steam Machinery, Hydraulics, Process and Properties, Tables and Memoranda. It is well illustrated with clean cut drawings of machinery on a large scale, and contains tables and formulae seldom found in technical works, the use of which will greatly lighten the office labor of the engineer. It is bound in strong, flexible covers and so arranged that it can be used with one hand while working with the other. Publisher's price, \$5.00.

AT the recent meeting of the National Electric Light Association at Niagara Falls, considerable time was taken up by the reading of papers and the discussions of the requirements for buildings intended for this purpose. Mr. M. D. Law read a paper, giving his view of certain necessary details for a model building, which should be of brick or stone, substantial, and not more than two stories in height, and as near fire-proof as possible. The boiler room should be located on the ground floor with plenty of ventilation, and the fire room cool and comfortable. It being necessary to keep engines, shafting and dynamos as cool as possible good ventilation should be provided therefore. The dynamo room should be directly over the shafting lines, well lighted and the ventilation perfect. The roof should be constructed without intermediate posts or supports, and of sufficient height and strength to support an overhead track, so that dynamos or armatures can be hoisted and carried over the ones that may be running. A cupola should be provided with window ventilators extending the full length of the two sides, and so arranged as to be under the control of the machine man; the line wires being run from this cupola as required. A store room of good size should be provided and fitted up with closets, drawers and shelves. The workshop should be suitable for lathe and benches.

Mr. G. T. Henthorn gave a detailed description of a new station building at Providence, R. I.

Those wishing to continue the subject will find a full description in the issue of August 17th of the *Western Electrician* of Chicago.

THE Kearny street property owners and business men have petitioned the Board of Supervisors to have that street paved with bituminous rock. The Street Committee of the Board has approved the petition and ordered specifications for the work to be prepared. The laying of this pavement on one of our principal streets will be a long step in the right direction, for besides the advantage of noiselessness this pavement requires but a fraction of the traction power necessary on the uneven cobbles and basalt blocks with which our main business streets are now disfigured.

In new apartments. The Technical Society and the Astronomical Society of the Pacific Coast have rented the large rooms adjoining the offices of this Journal. These spacious rooms are light, airy and convenient, and will be open at all times of the day to the membership of these societies. We congratulate them on their new departure and welcome them to all the benefits.

Magnitude in Architecture.

MAGNITUDE is the great object and result of design, and this quality is only to be attained by the fine adjustment of relative proportions in magnitude and order.

Architecture (says Aristotle) consists in magnitude and order. The works of man, compared with those of Nature, display our insignificance. The Pyramids, seen in the clear sky of Egypt, or St. Peter's at Rome, are proverbially disappointing to the first gaze of the beholder; it is only after he has instituted comparisons and measurements that he becomes sensible of the greatness of these human efforts—and his memory will supply him with many instances in which objects of inferior dimensions have surpassed them in impression of magnitude upon his mind. It is plain, therefore, that art alone can produce the full effect of magnitude, and to this the architect should direct all his skill; the ancients will be found consummate masters in this as well as in every other department of our art. It is, indeed, a fine art which enables the accomplished artist to raise ideas of magnitude and grandeur of composition on a piece of paper no bigger than your hand; while a less able one will cover a vast canvas without executing any comparable notions. Worthy of all inquiry and solicitude is such an art, for is the whole art of design and proportion. Pliny cites a statue of Hercules, so small that it might be lifted by the hand, which, however, conveyed more grandeur, magnitude and strength to the mind of the observer than a Colossus would have done. How great must have been the science of the master! And if, with such small means, he could effect the mind with these impressions, how great the economy of cost and material to the employer!—C. R. Cockerel, in *The Architect*.

Treatment of Ceilings.

THE ceiling is perhaps the part of an apartment that calls most loudly for decoration, and no architectural feature is more susceptible of it, where it might be introduced with more effect or give more pleasure to the inmate; yet this feature we almost invariably neglect. We naturally look up for beauty; however lovely the earth the sky both night and day presents us with greater charms; we are cheered in our outdoor hours by its ever changing picture, for which a flat white plane is a miserable substitute in our indoor life. To houses of the very highest class these remarks will apply, for it is a feature which has not had its due proportion of attention in point of decoration in any class of buildings, from the cottage to the palace. There certainly can be no more fitting place for decoration in the habitation of a being created upright. Can inconsistency be more extreme than that presented by thousands of apartments where a rich, elaborately decorated carpet is under the feet, and a plain, dead, flat ceiling above? In the interior of Arabian buildings the ornaments almost invariably become richer, more delicate and minute, as their height from the floor increases, and the most exquisite productions of the artist are lavished on the ceiling. With respect to the form the curve is at all times preferable to the flat, though the latter by various means is capable of great beauty also. No very great additional height is required in order to have a curved ceiling, as whether coved or segmental the rise need not be very great. For rooms of great pretension there is no form more noble and natural than the vault and dome, particularly the latter, whether hemispherical or segmental, as far as it suits the plan or can be adapted by pendentives or otherwise. It is the best substitute for the blue vault of the sky, the starry concave of the heavens. It was a fine idea of the builders of the mosque of St. Sophia at Constantinople—a conception in advance of ours—to make the curve of its dome so flat that it should seem to correspond with that of the sky, and be a portion of the firmament. We want an enlarged, improved, enriched, and at the same time inexpensive system of interior decoration, for domestic and ecclesiastical, commercial and other buildings, in our Anglo-Classic styles. For churches, collegiate and other buildings in the Pointed style, we have examples in our cathedrals and other buildings, which prove that the genius of interior decoration was once among us, as well as the taste to employ it. At Henry the Seventh and King's College Chapels; the oratory at Beauchamp Chapel; the Temple Church; Wolsey's Hall, Hampton Court; Christ Church Hall, Oxford; Westminster Hall, and others, we have ceilings and roofs that might vie with any that Europe could show. For assistance in evolving a system of Classic decoration we might look to some parts of the Continent. Exterior decoration there has sometimes probably been carried too far, a few Continental edifices exhibiting ornaments so minute and fragile as to seem at least unfit for exposure to the weather in any climate. But this could not be said of interiors. The Moorish or Morisco-Spanish architecture suggests to us what richness might be produced by very simple means; their icicle pendants, inlays and casings, and purely geometrical and imaginative ornaments, are very effective, and with them they often produced greater results than we, with all nature to imitate, have attained to. But the art of interior decoration was better understood and more successfully practiced in the great age of modern art in Italy, and indeed throughout the Middle Ages, than at present in any country. We never had any decoration to be compared with the mural and fresco paintings of the Italians, and there is probability in the supposition that their system was obtained from remains of the ancients, which time or violence has not spared to us. Beside the curved and richly embellished ceilings produced by the Italians, and the pictorial embellishment of their walls, ours might symbolize poverty itself. The ceilings of the principal apartments of a Roman, Genoese, Venetian or Florentine palace were considered as most important features, and on their designs and executions the highest talent was employed. In ecclesiastical buildings the contrast with ours would be still greater. Whilst the interior of the churches of Italy glow with every rich hue of the marble quarry, and are virtually galleries of art, what is the aspect of ours?—*London Architect.*

The September number of the "House Painting and Decorating," a monthly publication comes to us in a wonderfully improved appearance. We commend all our patrons to subscribe at \$1 00 a year. Address 1130, 35th street, Philadelphia.

Architectural and Mechanical Works.

In our list below will be found the names of books on architectural and mechanical subjects, the prices of which have been greatly reduced if taken in connection with the CALIFORNIA ARCHITECT. Old subscribers will be given the books at a large discount, so that they may feel that no favoritism is shown. It will be noticed that some of the books are given free to new subscribers.

	Price of Book.	With Cal. Architect.
Mechanics' Geometry.....	\$5 00	\$5 57
Monckton's National Carpenter.....	5 00	5 75
Cottages.....	1 00	5 40
Shavings and Saw Dust.....	1 50	2 75
Moore's General Assistant.....	2 50	2 25
Plaster and Plastering.....	1 00	3 40
Hand-Book of Legendary Art.....	3 00	2 75
Manual for Furniture Men.....	1 00	3 40
Water Closets.....	1 50	2 40
Cutting Tools.....	1 50	2 00
Sewer Gas and Its Dangers.....	1 25	3 50
Handrailing and Staircasing.....	1 25	2 75
Sloan's American Houses.....	1 50	2 75
Amateur Mechanic's Workshop.....	1 50	2 00
American Cottage Builder.....	3 50	3 00
Wheeler's Rural Homes.....	1 50	4 00
Burns' Ornamental Drawing.....	1 00	3 40
Manual of Drawing for Carpenters.....	3 00	2 00
Steam Engine Catechism.....	1 00	4 40
Grimshaw on Saws.....	4 00	2 75
Modern Low-Cost Houses.....	50	4 00
A Cozy Home.....	25	2 00
California Picturesque Architecture, No. 1.....	3 00	4 00
California Picturesque Architecture, No. 2.....	3 50	4 25
The Artisan.....	5 00	5 75

The following are justly recognized as standard publications. Some of them are perfectly new works, but we make the same general reduction:

	Price of Book.	With Cal. Architect.
Tredgold's Carpentry.....	\$ 7 50	\$ 8 25
Building Construction, 3 vols., Smiths.....	14 00	14 75
Picture-Making with Pen and Ink.....	4 00	5 25
New Cottage Homes and Details (Palliser's).....	4 00	5 25
Palliser's New Quarterly, per year.....	3 00	4 00

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High Houses in London.

A proposal to restrict the height of houses in London has been brought before Parliament by Mr. Whitmore, M. P. The scheme makes a distinction between streets less than sixty feet in width and those of greater width. In the former streets buildings are allowed to be erected up to sixty feet in height, but no more, except in the case of churches or chapels. Where the street or place is wider than sixty feet, the height of the building must not exceed the width of the street or place. If, however, the consent of the county council be obtained, this height may be exceeded. And, without such consent, the height of any building so erected may not be at any time subsequently increased so as to exceed the width of the street. It is made the duty of the district surveyor of the county council to inform the Home Secretary of any building intended to be erected contravening the provisions of the bill. The main object of the bill is to give to the county council powers to restrict the excessive height of buildings in existing streets in London. The county council has such powers in the case of new streets; but in the case of existing streets it is said that neither the county council nor any government department has any power to restrict the height of buildings.—*London Times.*

We notice an article on slow burning construction in the September number of the *Overland Monthly* by M. J. Bugbee of this city, which advocates an entire change in the building of houses. Mr. Bugbee contends that a radical improvement can be made by architects and builders in the erection of buildings which will make them almost fireproof, while the cost of the method will be increased not more than 8 per cent above the present rates.

THE New York Times publishes a long and earnest editorial about the new Municipal Court building for that city, expressing the opinion that a building erected in accordance with the selected design will be "discreditable to the city and to the commissioners who authorized its selection." That the idea of matching the architects against each other to see who would do it for the smallest percentage on the cost put the city in an "undignified and ridiculous position," and that the best way would be to appoint a new jury of real experts to examine all the designs over again, and if it should find that the one selected was really the best, to get up a new competition which would attract men capable of making better ones. Of course it is very unlikely that this advice will be followed, particularly as the commissioners have already bound the city to the architects whom they have selected by a contract which it would be a costly and difficult undertaking to break; and we cannot but regret that the *Times* should not have expressed its very judicious views before, not after the competition was decided. If a few daily papers so able and influential as the *Times* would come to the aid of the technical press in helping people to understand, before important competitions, the conditions which all architects of character consider essential to a fair contest, and the reasonableness and moderation of these requirements, the disgusts, disappointments and losses which attend nearly every public competition might be saved. The conditions are very simple. Nothing more is needed than to engage that the work shall be carried out, or if not, that a suitable compensation shall be paid the architect selected for the first place; that if it is carried out the author of the most meritorious design shall be employed to execute it at the customary commission of 5 per cent on the cost; that the award shall be made under the advice of one or more architects known to the profession as competent judges; and that time enough shall be allowed for men actively employed in other work to prepare, and carefully study, drawings, the nature of which shall be exactly stated in the programme. The original invitation of the Sinking Fund Commissioners allowed a very short time, about seven weeks, we think, for the preparation of a design which could not be properly studied under about as many months by an architect in ordinary practice, and no promise was made that experts would be employed to pass upon the merits of the designs. The consequence was that most architects of standing, after reading the programme, threw it into the waste-basket, where the programmes of public competition generally go in good offices, and for the same reasons; and the field was left, as it usually is, to the few people who are willing to do themselves the injustice of getting up a crude, hasty sketch, and committing it to fortune, without any assurance that it will be fairly judged.—*American Architect.*

Flash-light photography is being used by the sanitary inspectors of New York to obtain graphic pictures of the overcrowded condition of the tenement houses of that city.

CITY BUILDING NEWS.

Church and Twenty-first. Owner, S. Stemmer; architect, Wm. Mosser; contractor, Wm. S. Lott et al.; cost, \$1,000; sureties, J. E. Wells and Jos. Pandler, \$2,000; filed Aug. 30; signed Aug. 28; limit 70 days; to build; \$750 framed; \$750 ready for lathing; \$50 rear platform up; \$750 completed; \$1,000 35 days.

City Hall and Park avenue. Owner, Geo. T. Marye, Jr.; architect, Wm. F. Smith; contractor, S. H. Kent; cost, \$9,075; sureties, J. E. Wells and P. Blak; filed Aug. 22; signed Aug. 13; limit six months; carpenter work, \$1,000 second story joists on; \$2,000 roof is tinned; \$1,500 ready for plaster; \$2,956 completed; \$2,419 35 days.

City Hall and Park avenue. Owner, Geo. T. Marye, Jr.; architect, Wm. Smith; contractors, O'Connell & Lewis; cost, \$6,040; sureties, J. E. Wells and P. Blak; filed Aug. 22; signed Aug. 13; limit six months; cast iron; \$2,250 basement column set; \$2,250 first story columns set; \$1,500 35 days.

City Hall and Park avenue. Owner, Geo. T. Marye, Jr.; architect, Wm. F. Smith; contractor, C. C. Morehouse; cost, \$1,622; sureties, Jno. Tuttle; filed Aug. 22; signed Aug. 13; limit six months; plastering; \$300 brown coated; \$400 completed; \$422 35 days.

Clay, bet. Powell and Mason. Owner, C. Collette; architect, W. H. Armitage; contractor, Francis Buckley; cost, \$5,800; sureties, L. A. Mason, \$5,000; filed Aug. 10; signed Aug. 5; limit 75 days; 3 story frame; \$1,450 framed; \$1,450 brown coated; \$1,450 completed; \$1,450 35 days.

Dale Place and Golds. Gate Ave. Owner, Andrew Heneberry; architect, A. J. Barrett; contractor, C. N. Smith; cost, \$2,300; sureties, Frank P. Latson, \$1,000; filed Aug. 5; signed Aug. 1; limit 60 days; alterations, etc., 75 per cent to be paid as work progresses, bal. 35 days.

Cabots' Creosote Shingle Stains on Redwood.

"The use of Cabot's Creosote Shingle Stains in California is on the increase. We note that they have been recently used on the hotel Vendome at San Jose, and on Judge Venner's residence at Los Gatos. In both of these cases they were used on redwood, and the architects, Jacob Lenzen & Son, San Jose, and the painters J. P. Jarman & Co. of the same city, write that they give perfect satisfaction, and that they cheerfully recommend them for similar work."

At the time the consolidation of the American Institute of Architects and the Western Association was decided on, the executive officers of the two bodies were instructed to meet, choose the time and place, and call a joint convention. There has been great delay in the matter, from the fact that differences of opinion exist as to the best place for the convention to meet. The secretary of the Institute advocates Washington, for the reason that it is neutral ground, while the president of the Western Association favors some city that is the center of the great business and commercial interests.

Straightening Walls of Buildings.

THE weight of the roof of the large gallery of the Conservatoire de Arts et Metiers pressed the sides outward so as to endanger the building, and it was requisite to find means by which the wall should be propped so as to sustain the roof. M. Molard contrived the following ingenious plan for that purpose: A series of strong iron bars were carried across the building from wall to wall, passing through holes in the walls, and were secured by nuts on the outside. In this state they would have been sufficient to have prevented the further separation of the walls by the weight of the roof, but it was desirable to restore the walls to their original state by drawing them together. This was effected in the following manner: Alternate bars were heated by lamps fixed beneath them. They expanded, and consequently the nuts, which were previously in contact with the walls, were no longer so. These nuts were then screwed up so as to be in close contact with the walls. The lamps were withdrawn and the bars allowed to cool. In cooling they gradually contracted and resumed their former dimensions, consequently the nuts, pressing against the walls, drew them together through a space equal to that through which they had been screwed up. Meanwhile the intermediate bars were heated and expanded and the nuts screwed up as before. The lamps being again withdrawn, they contracted in cooling and the walls were further drawn together. This process was continually repeated, until at length the walls were restored to their perpendicular position. The gallery may still be seen with the bars extending across it and binding together its walls.

Devisadero and Haight. Owner, Anita Fallon; architect, Fred E. Wilcox; contractor, John H. McKay; cost, \$3,620; sureties, Frank P. Latson and Geo. T. Shaw, \$4,810; filed Aug. 21; signed Aug. 19; 3-story building; \$2,155 framed; \$2,155 brown coated; \$2,155 completed; \$2,155 35 days.

Eighteenth and Noe. Owners, Annie Loy and husband; architect, Frederick Miller; contractor, Wm. McPhee; cost, \$2,600; filed Aug. 15; signed Aug. 14; limit 70 days; building \$600; enclosed \$2,000, 35 days.

Ellis and Gough. Owner, Jacob J. Rauer; architects, Chas. R. and John M. Wilson; contractor, James Geary; cost, \$9,275; filed Aug. 7; signed Aug. 6; brick and carpenter work for a 1-story frame \$1,000; first story joists on \$1,200; roof on \$1,200; brown coated \$1,831; white coated \$1,800, completed.

Ellis and Gough. Owner, Jacob J. Rauer; architects, Chas. R. and John M. Wilson; contractor, James Geary; cost, \$1,140; filed Aug. 7; signed Aug. 6; plumbing, etc. \$570; rough work in \$285; accepted \$285, 35 days.

Ellis and Gough. Owner, Jacob J. Rauer; architects, Chas. R. and John M. Wilson; contractor, Chas. Chaitain & Gillett; cost, \$2,248; filed Aug. 7; signed Aug. 3; cement work, 75 per cent as work progresses, bal. 35 days.

Front and Vallejo. Owner, Mrs. E. B. Sanborn; architects, Wright & Sanders; contractor, John S. Mackay; cost, \$17,050; filed Aug. 13; signed Aug. 12; brick building and construction of iron safe, 75 per cent of work done, bal. 35 days.

Fourth and Bluxome. Owner, Peter A. Smith; architect, J. J. Welsh; contractor, John J. Dunn; cost, \$5,977; sureties, Behrend Joest and W. A. Messer, \$3,000; filed Aug. 10; signed Aug. 5; limit 77 days; carpenter work; \$1,400 framed; \$2,400 brown mortared; \$1,800 completed; \$1,577 35 days.

Fulton and Buchanan. Owner, N. B. Manville; architect, N. B. Manville; contractor, I. P. Klenck; cost, \$1,875; filed Aug. 15; signed Aug. 13; limit 30 months and 30 days; 3-story building \$450; framed \$450; plastered \$475; completed \$450, 35 days.

Bancroft Way and Dana street, Berkeley. Owner, Chas. D. Allen; architect, A. W. Pattiani & Co.; contractor, A. W. Pattiani & Co.; cost, \$5,532; filed, August 14; signed, August 12.

Adeline Tract, Oakland, Tp. Owner, Mathew Lee; architect, A. W. Pattiani & Co.; contractor, W. R. Batten; cost, \$1,600; filed, August 15; signed, August 14.

Hirschfeld Tract, Alameda. Owner, H. Forsyth and W. C. Forsyth; architect, A. W. Pattiani; contractor, John J. Boyle; cost, \$1,200; filed, August 16; signed, August 14.

San Jose avenue and Chestnut street, Alameda. Owner, Fannie R. Morton; architect, A. W. Pattiani & Co.; contractor, A. W. Pattiani & Co.; cost, \$2,976; filed, August 16; signed, August 14.

Durant avenue and Dana street, Berkeley. Owner, Chas. D. Allen; architect, A. W. Pattiani & Co.; contractor, A. W. Pattiani & Co.; cost, \$3,532; filed, August 16; signed, August 16.

SAN JOSE AND VICINITY.

Residence for Mr. Tillotson, at Berryessa; \$4,000.

Residence for Joseph Holland, at Evergreen; W. J. Wolf contractor; \$3,000.

Residence for James Farney, on Ninth street; P. R. Wells, contractor; Garden City Mill Work; \$3,000.

Mrs. Knox Goodrich, building on First street; R. Summers, contractor for wood work, and W. J. Wolcott for brick work; \$10,000.

Dr. Urquhart, residence; C. R. Scammon, contractor; \$4,500.

Contractor Hazzard is erecting a five room cottage on Vine street for A. Perry, at a cost of 1,000; also a five room house for Mr. Wright on Minor avenue.

A cottage of five rooms for Frank Lyth; cost \$1,500; Ira G. Hazzard contractor.

A six room dwelling for Edward B. Lewis; cost \$1,800; Hazzard contractor.

H. H. Farnham is erecting a five room cottage at a cost of \$1,200.

J. Starbore has finished a cottage which cost \$1,000.

A house of four rooms is being erected by T. S. Lane at a cost of \$900.

A cottage to cost \$1,000 is being built for O. P. Cash by Ira G. Hazzard the contractor.

A cottage of four rooms is being built by Mr. Churchill; cost \$1,100; Hazzard contractor.

Robert Piggott has contracted to build for William Matthews a one-story frame building on the northwest corner of the Alameda and Autumn street for \$6,180.

Residence for James Wyatt, South Seventh street; J. Lenzen & Son, architects; A. Kelsey, contractor; \$4,000.

Cottage for Mr. Groves on Hamilton avenue; Frank Davis, contractor; mill plans; \$1,800.

Cottage for Mr. Miller on Delmas avenue; Frank Davis, contractor; \$1,600.

Cottage for Mrs. Lowe on Little Market street; Frank Davis, contractor; \$1,500.

Residence for Frank Davis, North Third street; day work, mill plans; \$2,400.

Improvements on First Methodist Church; J. Lenzen & Son, architects; Mr. Phillips, contractor; \$6,000.

Residence for C. P. Pauley on the corner of Empire and Tenth; day work, mill plans; \$1,500.

Improvements on residence of Mrs. Murphy. Columbet on Fourth street; J. Lenzen & Son architects; day work done by A. C. Bates; \$1,000.

Residence for J. Columbet on Fifth street; \$3,000.

The Hayes residence at Edenville, G. W. Page architect, to be built by day work at an estimated cost of \$75,000.

Cottage for J. Jacks on Tenth street, from plans made in the mill; J. J. Hill contractor; \$2,000.

Two cottages for J. R. Johnson, from mill plans; day work; \$2,500 each.

A cottage on North Fourth street near Empire, J. N. Stevenson, contractor and architect; \$2,000.

A winery for Mr. Blennike on the Stevens creek road, by day work; \$3,000.

Cottage for J. K. Smith, on Marliere street; Ira Hazzard contractor; \$1,200.

Cottage for C. Ballinghall, on Willow street; day work; \$1,000.

Residence for Tom Hughes, on Thirteenth street; day work; \$1,000.

Residence on San Fernando street near the bridge; J. A. Crawford builder; \$1,000.

Residence on Villa avenue, D. D. Briggs contractor; \$1,500.

Cottage for M. A. Brown; cost \$1,200; Hazzard contractor.

Cottage of four rooms for Dr. Rappe; \$1,500.

J. B. Capp is having a ten room house placed on his lots at a cost of \$5,000; Hazzard contractor.

A \$3,000 cottage for Benjamin Rordeau is to be erected by Mr. Hazzard.

W. E. Woods is having built a five room cottage; cost \$1,200; Hazzard contractor.

An eight room house is being built for M. A. Wischaar at a cost of about \$2,500.

O. O. Noble is having a six room cottage built at a cost of \$1,300; Hazzard contractor.

C. A. Blewitt is having a five room cottage built at a cost of about \$1,100; Hazzard contractor.

Contractor Hazzard also begun yesterday on a handsome six room cottage corner of First and Floyd street; which is to cost \$2,500.

Harry Keist is having a five room cottage built at a cost of \$1,000.

Mr. Souders, the owner of the Water Works, is also building a cottage to cost about \$1,000.

SANTA ROSA.

Contractor J. R. Nelson commenced the erection of a dwelling for D. Hodgson on Slater street.

T. J. Ludwig has commenced the completion of the brick block on Fourth street.

GRASS VALLEY.

S. T. Best's new dwelling house on Race street, near Auburn, is approaching completion. It will be neat architecturally as well as conveniently arranged.

Lumber for a residence for John Polkinghorn was hauled to-day to the Conaway tract on Race street.

Bennetts is building an addition to his dwelling corner School and Walsh streets.

Contractor I. T. Walker is making rapid progress with the large building he is putting up at the corner of Mill and Neal streets.

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SAN FRANCISCO, CAL.

Architecture.

In architecture, an art in which nothing but brains can excel, an art which requires years of study, an art which has no standard of grace but which is directly dependent on utility, an art whose creations derive a part at least of their majesty by mere sizes, our city can boast of many talented men, men who have lent to the city of to-day their creative talents and in the handsome, massive and magnificent buildings which line our streets, and in the palatial residences in every section we see evidences of their skill which would reflect credit on any city in the country.

From the low frame buildings of 1849, of any style and built of any kind of material, the advance has been rapid and steady.

One frame or flimsy brick building after another has been replaced by handsome, substantial structures until the city to-day presents as handsome an appearance as any city in the country. Every section of the country has its peculiarities and the architecture of each portion generally conforms to the climate, and the individuality of its people.

In San Francisco where sunlight is so essential to the comfort of a building, and where precaution must be taken against earthquakes, as against cyclones, snow and severe winters in other sections of the country, our local architects have mastered and overcome the difficulties attending and are certainly through their long experience and study in overcoming them, better fitted to draw plans and design buildings of a first-class nature than those of more eastern points, for this section. Evidences of their skill to erect first-class fireproof and earthquake proof buildings are every where apparent in this city and throughout the state, and many of our architects would attain prominence in any city in the country.

As in architecture, so in building, material has there been a decided improvement and except in rare instances do we find the old frame being put up instead of a brick or stone building with possibly the exception of residences.

The time has gone by when a property owner covered his lots with badly designed and badly constructed buildings provided he could fill them with tenants. He to-day has his buildings constructed in accordance with the most approved principles of modern architecture uses the best and most improved building material and he finds when his building is complete he can obtain tenants much more quickly and his building commands a much higher rental than the old and illy constructed buildings of former years. While the old-fashioned buildings are in many cases unoccupied, the buildings erected within the past few years with every modern convenience and built on the newest and approved plans of architecture are filled with first-class tenants and in many instances rented before entirely completed. In this issue, a number of illustrations are given of buildings erected by some of our leading architects, accompanied by a short biography.

These building show the various types of architecture of the city, in public buildings, residences and business blocks, each of them being models of their kind.

Percy and Hamilton.

G. W. Percy was born at Bath, Maine, July 5th, 1847. Having completed his education, in 1866 he entered the office of F. H. Fassett, architect, at Portland, Maine, after the great fire which had destroyed that city. Remaining there three years he removed to California in September, 1850, and located at Stockton where he practiced his profession until April, 1872, when he went to Chicago and entered into the employ of J. M. Van Osdel & Co., architects, of that city. He served with them during the busy years of rebuilding Chicago's burnt district until May, 1873, when he went to Boston, serving as Superintendent of Construction for Bradlee & Winslow.

In September, 1875, he returned to California and opened an office in this city, doing business alone until January, 1880, when he entered into partnership with F. F. Hamilton under the present firm name.

F. F. Hamilton was born in Addison, Maine, in 1831. He studied his profession under Professor Hammit Billings, a prominent architect of Boston, entering his office in 1867, and also served with several other prominent architects of that city until 1872 when he formed a partnership with J. B. Samuels, the firm being J. B. Samuels and F. F. Hamilton. They were the architects for several prominent buildings and erected numerous churches in Boston and vicinity. In September, 1875, he came to California and located in this city, being employed upon the new City Hall for three years. In 1878 he took a trip East, returning here again in 1879, and in 1880 formed the present partnership.

Among the prominent buildings erected by this firm are the State Insane Asylum Buildings at Stockton, Masonic Hall, Sperry Flouring Mill, Crown Flour Mills, all at Stockton. The Academy of Sciences (illustrated in this number), the Children's Play House at Golden Gate Park, new First Unitarian Church, corner of Franklin and Geary, Hayward's Apartment House on Larkin street, opposite the new City Hall, Hayward's Block on Sutter above Kearny, the Omnibus Cable Co.'s new car house corner Tenth and Howard, the engine house of the same company on Oak and Broadway, the largest of its character in this city, the buildings of the California Electric Light Company on Townsend and Clarence place and on Stevenson street; the Cunningham Building corner of Second and Stevenson, A. Hayward's magnificent residence at San Mateo, and numerous others in this city and different parts of the State.

Wm. Mooser.

The subject of this article is one of the oldest and best known architects in San Francisco.

He is a native of Switzerland, but came to California at the age of twenty years, arriving here in 1854. One of his first ventures in this country was his employment at the Navy Yard, in designing naval structures, and he has ever since been connected with the building interests of this city, Sacramento and Virginia City, at which latter city he erected the first brick buildings of any importance, such as the M. E. Church, Medine's Block, Wood & Wilson's and Wells, Fargo & Co., buildings.

From Virginia City, Mr. Mooser came back to San Francisco where he has been established ever since and in which place he has erected a large number of private and public buildings. In 1861, he with several other architects founded the San Francisco Architectural Society, and he is to day with the exception of one, the only charter member still actively engaged in the profession. Some of the most important buildings erected under his supervision, are as follows: The Metropolitan Temple, illustrated in this number, K. of P. and Pioneer buildings and Veranda Block, now in course of construction.

At Rutherford station, Mr. Mooser displayed his ability in constructing the famous cellars for The "Inglenook" Vineyard, for G. Niebaum, they being the first of their kind on the Pacific coast constructed almost entirely of concrete.

A. J. Barnett.

Was born in St. Louis, Missouri, in 1853, and learned his profession with his father, G. R. Barnett, a prominent architect of St. Louis. He first came to this city in 1874, practiced here awhile, and then went to Chicago, being there associated with A. H. Piquenard, returning to his native city in 1882. He entered into partnership with his father, the firm becoming Barnett & Son, and while there was the architect for several prominent buildings. Finding the western country a better field for his talents he left for Portland, Oregon, and finally came to this city in 1883, since which time he has practiced here continually.

Among the many buildings built by him we mention the following: Oriel block, corner Market and Franklin; Green Valley Stables on Mission and Fifth, the largest livery stable in the city; the residences of Frank P. Dow, Laguna and California; F. T. Black, corner Page and Webster; E. W. Joy, Van Ness Avenue; E. Goggin, Van Ness and Jackson; Simons, Jacobs & Co.'s block a Merced, Cal.; a number of flats for D. W. Parkhurst; the Van Winkle lodging house, corner Turk and Jones; two residences for James P. Dunn at Leavenworth and Jackson; and the Oriel row of thirteen houses on Haight between Webster and Buchanan, of which we give an illustration. This row of houses has the distinctive architectural feature of each house differing from the other in design, no two being alike, the whole still harmonizing, and differ from most houses in not having the long flight of stairs so prevalent here. Each is an even-room house, and so arranged as to admit the sun in all the principal rooms. The row is a very handsome one, and reflects great credit on Mr. Barnett's abilities as an architect.

John M. Curtis,

The well-known architect, was born in 1852 at Warsaw, Illinois. At an early age he was left an orphan and thrown upon his own resources. He evinced great mechanical genius and entered into service with Bent & Garrity, builders and contractors, of St. Louis, Mo. After serving with them he entered the office of Mitchell & Brady, architects, of St. Louis, and studied the profes-

sion of architecture, remaining there until 1874, when he came to California and located in this city where he has remained in active practice ever since.

While he has been here, he has been closely identified as superintendant, builder, and assistant or chief architect of a great number of our largest and finest buildings.

He was assistant architect of the Baldwin Hotel and Theatre; supervising architect of the new City Hall and architect of the Santa Rosa, Sonoma county, Court House; the Mutual Relief building of Petaluma; Santa Cruz county buildings and jail; Wells & Fargo's new building on Folsom near Serond street; the handsome new winery erected by Boyd & Davis, to be occupied by Kohler & Frohling (illustrated in this number) and many other prominent buildings and residences of this city and surrounding points.

He is a member of the San Francisco Chapter American Institute of Architects, Treasurer of the Pacific Coast Chapter of American Institute, member of the Technical Society of the Pacific Coast, and has gained a high reputation in his chosen profession.

Saltfield & Kohlberg.

David Saltfield was born at Keysboard, Illinois, in 1861. When but six years of age he removed with his parents to Germany and received his education in that country. He studied his profession in the various architectural schools of Germany, and in 1880 came to California locating in San Francisco. He served as draughtsman for four years with several architects of this city and then formed a partnership with Emil John, the firm becoming Saltfield & John which lasted one year. He then practiced alone a year when the present partnership was formed.

Herman Kohlberg was born at Beverungen, Westphalia, Germany, in 1855. After graduating at the High school of Lippstadt, Westphalia, he attended the Polytechnical High school of Brunswick, near Hanover, taking a three years course. He practiced his profession for several years in southern Germany until 1882 in which year he came to the United States. He served in New York city for one year and then came to this city in 1883.

For two years he held business connections with several architects of this city and in 1885 formed the present partnership with D. Saltfield. The firm are the architects for quite a number of fine buildings, notable among which are the following: Rosenthal building, of which an illustration is given in this number, the Rosenbaum building, corner of California and Front streets, Hackmeier's Hotel, J. Carstensen's building, 29th and Dolores, Simon Siegel's row of dwellings, five residences for James B. Hall, a fine business building for G. Woerz on Geary street, business house for A. Marx, Klose & Hillenbrand's Hotel, on Valencia street, B. Miller's flats on Post near Larkin, Victor R. Ulman's residence on Clay street, business house and flats for Dr. Abrams on Hayes street and others in various parts of the city. They received the premium for the design of the Court House at Stockton and are the architects for the jail in that city.

Charles I. Havens

Was born on Long Island, N. Y., in 1849, and came to California in 1856, locating in San Francisco. He entered the office of S. C. Bugbee & Son in 1864 and learned the profession of architecture, serving as draughtsman with them for five years. After that he was connected with John P. Gaynor two years and was with P. R. Schmidt for nine years more, entering into partnership with him in 1881, the firm becoming Schmidt & Havens, which continued for five years. During this time they erected numerous prominent buildings in this city and different portions of the State, among which were The Fulton, corner of Fulton and Larkin streets; The Longworth on Geary, the Haines' residence at San Mateo, the De Lavega residence, Geary street, D. N. Walters' residence, corner Sacramento street and Van Ness avenue, and others.

On January 1st, 1886, he commenced business for himself, since which time he has been practicing alone.

He has been the architect of some of our largest and most prominent buildings, notable among which are the following: The Carroil block, on Turk and Laguna, costing \$45,000; the Hayward residence, corner of Baker and Hayes streets, \$25,000; the Guadalupe Mill Co. building on Steuart street, running through to East street, south of Market, \$45,000; H. C. Talbot's residence at San Leandro, \$30,000; the Golden Gate Livery Stable, on Golden Gate avenue (illustrated in this number), \$80,000; J. J. Wells' residence, corner of Pacific and Steiner streets; Palmer block, on Mission, between Eleventh and Twelfth streets, \$25,000; and numerous others of like character.

He is a member of the San Francisco Chapter, American Institute of Architects, and ranks among the highest in the profession.

Henry Geitfuss

Was born in Thuring, Germany, in 1850, and studied his profession in Erfurt, Weimar and Berlin in the different architectural schools of those cities. While in Berlin and Schlessing he practiced his profession principally under railroad officials in constructing bridges and heavy masonry, thus seeing considerable work and thoroughly preparing him for his future career. In 1876 he left his native country, arriving in this city in the same year, where he has been in active practice ever since, working as draughtsman the first two years. Since he has been in business for himself he has been the architect for some of the best buildings erected here. Among the most prominent are the following: Kohler & Van Bergen's Winery on 3d street between Brannan and Townsend, the Wm. Tell House, Bush street; the U. S. Brewery; the Zwieg residence, corner of Howard and 23d streets; Vanlag residence on Howard, between 16th and 17th; W. Westerfelt residence, Fulton and Scott streets; John Cook's, Howard, between 20th and 21st; Sam. Steiner's residence on Eddy, between Franklin and Gough; the three-story brick building for stores and lodgings for John Van Bergen, corner 3d and Harrison which we illustrate, and many others.

Reid Bros.

Have been located in this city but a short time and consequently have not been identified with her architectural development. They have an enviable reputation in Chicago, Evansville and San Diego, where they have erected numerous buildings which reflect great credit upon their ability as architects.

The Coronado Hotel at Coronado Beach, which is illustrated in this number, is a monument to their architectural ability and is acknowledged as one of the finest hotels in the country.

Slate.

The material to be used for the roofs of buildings is an important item in their construction, as regards durability and resistance to fire.

Slate is gradually and deservedly taking precedence over all other materials for roofing purposes, as it will generally outlast the life of any building; it never requires painting, is a perfect resistance to fire, is storm proof, and imparts much warmth to any building covered with it.

The first cost is only nominally greater than shingles or other destructible material used, and it will outlast any other material fifty to one hundred years, being almost indestructible.

Another advantage of slate roofing is its handsome appearance, as noticed on the fine buildings in eastern cities, where it is almost universally used, besides requiring no painting or repairs, as a roof constructed of slate lasts for years, and therefore is far more economical in the end than the use of material formerly in vogue here.

The California Slate Company, whose offices are located at No. 9 Mission street, are prepared to furnish a superior quality of slate for roofing purposes in any quantities to suit.

Their quarries are located in El Dorado county, and expert architects pronounce the quality second to none, and generally better than any produced in the eastern states or Europe.

They are enabled to furnish any sizes that may be required of an average thickness of three-eighths of an inch. The color is a rich blue black, of fine grain and unusually smooth surface, which imparts to any building a graceful and handsome appearance.

Besides roofing this slate can be used for mantles, sidewalk tiles and general building purposes, and can be quarried large and thick enough for billiard table tops. It admits of a fine polish, and is withal a valuable addition to our building material.

Samples of this company's product can be seen at the Mechanics' Institute Fair, and at their office No. 9 Mission street, and parties contemplating building will do well to inspect this material, as they will be convinced of its superiority for roofing purposes.

The photo-engravings used in illustrating this number were made by the Globe Photo-Engraving Co., 419 Sacramento street. This is a new concern and is doing some excellent work.



Premises at Second & Folsom Streets.

JOHN M. CURTIS, ARCHT.