

good quality. At the Mission, J. W. Orr manufactures stone ware from clay of superior quality found in the southeastern portion of Sacramento County. He also manufactures vessels for chemical works; among others, having manufactured a number of sixty-gallon condensers to be used by the San Francisco Acid Works. R. Chabot has his establishment at North Beach, where he manufactures sewer pipes to a very large extent. This latter pipe is made from a composition of cement, gravel, and clay, combined with iron bands. During the past year, large deposits of kaolin or porcelain clay have been discovered in Mendocino County, and a considerable quantity of the clay brought to this city. Efforts have been made to establish a porcelain pottery, but so far no definite action has been taken, although the project is still under consideration. The clay has been made into fire bricks, which on severe trials have proved to be equal to the best imported. A variety of superior pottery ware is now being manufactured by Isaac Lobree & Co., at Antioch, Contra Costa County, an agency for the sale of which has been established at 516 Commercial Street.

SUGAR REFINERIES.—The only sugar refineries on the Pacific coast are those located in this city. These are three in number, and conjointly have a refining capacity nearly double the consumption of refined sugar in this market. The business is, however, at times subject to vigorous competition from importations from the Atlantic States, and in the lower grades of refined sugars from imports of raw sugars from the Hawaiian Islands. The latter opposition is, however, about being removed, as arrangements have been made by the principal refineries to get their entire stock of raw sugars from the Islands in future, so that the sugar growers' interests there and the refineries in this city will be in union hereafter.

The first and longest established refinery was the San Francisco, which several years later was incorporated with the Pacific Refinery, and now are known conjointly as the San Francisco and Pacific Sugar Refineries, the works of both adjoining each other on Harrison and Eighth Streets. The quality of the refined sugar made by these works (as well as the other refineries) is unexceptionable, and their success was the inducement for the other refineries being erected to supply a profitable demand. The works have a capacity to refine 120,000 pounds of raw sugar daily, the power of engines is 100-horse power, while during 1866 there were 179 men employed, refining 14,902,360 pounds raw sugars, which netted 11,927,500 pounds refined sugar and 325,012 gallons syrup. The works were in operation night and day for the entire year, with the exception of some six weeks while repairs were being made. Besides supplying the domestic demand, which includes the people of the States of Nevada, Oregon, Washington, Idaho, and part of Montana Territories, the refineries of this city have, during the past year, exported considerable quantities of refined sugars to Mexico, British Columbia, the Hawaiian and Society Islands, and Japan. The prospects are favorable for an increase of the exportations to all the countries named, the sugars from this port comparing favorably, both in price and quality, with sugar from Germany, Great Britain, and the Atlantic States, from which supplies had formerly been received.

BAY SUGAR REFINERY.—This refinery is situated immediately on the Bay, at the corner of Union and Battery Streets. The capacity of the works is equal to the refining of 28,000 pounds raw sugar daily. The engine used is 100-horse power, and during 1866 there were employed sixty workmen, using 6,620,952 pounds raw sugar and turning out 5,250,000 pounds refined sugar and 120,019 gallons syrup. During 1866 this refinery was run night and day with the exception of about two months and a

half, during which repairs were being made. Within the past year Claus Spreckles, one of the proprietors of this refinery, visited Germany and France with the view of informing himself of the process to make beet sugar and the best variety of that vegetable for the purpose. Mr. Spreckles was successful in his endeavors, and since his return has distributed large quantities of beet seed to farmers located in different portions of the State, with the view of ascertaining the most favorable section for sugar growing. From specimens forwarded him this season he has found that the beets grown in California possess a much larger per centage of sugar than the same varieties grown in Germany and France, while the yield of roots per acre is also equally great in favored locations. Experiments with beets, on a small scale, have been made, which have resulted in the production of a first class quality of refined sugar, fully equal to the best made. Should the results of next year warrant it, the machinery of this refinery will, in all probability, be either removed to a locality of beet growing and fitted for the making of sugar direct from the vegetable, or be changed for use for the same purpose in this city.

CALIFORNIA SUGAR REFINERY.—This refinery is located on the corner of Brannan and Eighth Streets. The works have a capacity for refining 15,000 pounds raw sugar daily, using a 25-horse power engine. During the last year these works employed 25 hands, using 1,220,000 pounds raw sugar, which netted 1,025,600 pounds refined sugar and 125,000 gallons syrup, a portion of the raw sugar being made into low grades refined sugar and syrup direct.

SHOW CASES.—There are quite a number of manufacturing of show cases of the various sizes and kinds needed for the trade of San Francisco. For workmanship and materials used, this branch of manufactures has no superior in the Atlantic States.

BRUSHES.—The manufacture of brushes in this city has been engaged in with varying results for several years. Until within the last eighteen months the entire supply of bristles had to be imported, while the wages of operatives were so high as to prevent favorable competition with the imported article. Within the above named time, however, considerable quantities of bristles of fair quality have been obtained from the slaughtering establishments around the city, and a new article from the plant commonly known as the soap-root, which is found growing in great profusion in the interior of the State. The bristles have to be cleaned and sorted by brushmakers before using, while the fibres of the soap-root are torn apart and cleaned from husk by machinery adapted to the purpose. Both of the articles are well suited for making all the varieties of common brushes used, the soap-root fibres being found excellently adapted for scrubbing and other wet uses, it retaining its wire-like firmness after long soaking and service.

MACARONI AND PASTE.—The manufacture of these articles of food was first commenced in San Francisco in the year 1856, by Messrs. Briguardello, Macchiavello & Co., who have continued in the business. The superiority of the domestic made articles over the imported, which latter are more or less injuriously affected by the long voyage, was soon appreciated by consumers, so that the manufacture was increased until it monopolized the market. At first the macaroni wheat was imported from Chile, but within the last two years a full supply has been grown at various places around the Bay. During the year 1866, the above named firm manufactured about 20,000 boxes of macaroni and paste, using 10,000 sacks wheat, and 600 barrels of flour for the purpose. Besides supplying the domestic trade, considerable quantities of macaroni and paste have been