

of political economy, but bitterly opposed by persons engaged in exporting wool and importing the manufactured goods. Woolen mills have been successfully established, but have not entirely triumphed over the opposition. This triumph will not have been attained until the manufactories are established that nature invites by the abundant power afforded, and our wool is exported in perfected fabrics. The product of the past year amounted to 20,000,000 pounds, valued at \$1,000,000. Of the amount grown, 4,000,000 pounds were reserved for the manufactories of California, and the balance exported to the East, and foreign countries in the raw state. A proof of the capacity of the country to manufacture for export is shown in the large order of the principal retail merchant of New York for woolen goods, amounting to upwards of \$300,000.

A large capital is required in establishing a woolen mill at the present day. The preparing of wool by hand, for home spinning and weaving, was superseded by the carding machine, and to this is now added entire manufacture. Where wool is washed, there it is woven, fulled and colored, and prepared for the market. Those already established in California are the Pioneer, Mission and Pacific Consolidated, at San Francisco; Capitol, at Sacramento; Marysville, at Marysville; Merced Falls, in Merced County; San José and Los Gatos, in Santa Clara County, and the Stockton Mill at Stockton. Their products are blankets, rugs, buggy robes, shawls, flannels, cassimeres, cloths, tweeds, and military cloths, generally of the highest order of manufacture.

No other clothing goods than woolen can be enumerated in the list of California manufactures. A cotton mill was established at Clinton, Alameda County, known as the Oakland Mill, in 1866, depending for its raw cotton on the plantations undertaken in Mexico. The opposition of importers, with the expense and uncertainty of supply, effected the failure of the enterprise. The story of the mill, and its projectors, the Ritcher Brothers, will stand as a monument in the history of California manufacturing when the cotton product will constitute one of the greatest staples of the country, and its manufacture into the endless variety of articles of use and commerce becomes one of the great industries.

That cotton can be successfully grown in California has been demonstrated. Col. J. M. Strong, an experienced cotton grower of Alabama, has for several years grown fields in Merced County of that most useful plant, producing at the rate of one and a half bales per acre, and of a very fine quality. The whole experiments have proven the adaptability of California to the production of cotton at a greater profit than in other sections of the Union, and in unlimited quantities. The rise in this manufacture will accompany the production of the fibre, and in it is a store of great eventual prosperity.

The cotton mill referred to was forced by circumstances to change its plans, and the manufacture of burlap succeeded. This class of goods is used in making grain and wool sacks. The custom of the country in storing and shipping grain in sacks, which has proven the best system, creates an enormous demand for burlap, and made the manufacture profitable. The amount expended annually in California for grain sacks will approximate two million dollars, the greater portion being imported from Dundee, Scotland. The Oakland mill has lately been increased to a capacity of 5,000 sacks per day, still not one-tenth the number required.

The sugar refineries of San Francisco are properly classed among the important manufactories. Of these, there are four grand and extensive establishments, supplied with the most complete machinery, and prepared to do work equal to any of their class in the world. Their aggregate capacity is 60,000,000

pounds per annum, but usually turn out from 30,000,000 to 40,000,000. All the sugar of the Pacific Coast is from these refineries, and their trade is extending into the newly opened countries eastward.

The past year has witnessed an important advance in silk manufacture. In this can be seen one of the great industries of the future. Millions of people in various parts of the world derive their subsistence, and their countries their wealth and power, from the tiny thread of the silkworm. Our own fair State has proven herself, in this as well as many other things, of superior capacity to most other parts of the world. The mulberry tree grows luxuriantly, the delicate spinners are healthy and vigorous, and the silk of the very best quality. The product may be extended indefinitely, and most profitably even for export. It remains, then, for intelligent enterprise to perfect the scheme by establishing manufactories. Two glorious flags, one for the State Capitol and the other for Washington, have been made, with coloring and all complete, as samples of capacity. Their bright colors and fine texture are proof that the artisans are here to aid capital in whatever advances it may make. The California Silk Manufacturing Company has been organized and a factory built in South San Francisco, and the further progress that the great opportunity offers is looked for. The building for the factory is a handsome and spacious structure, two stories in height, and fifty by one hundred and twenty-five feet in dimensions.

The manufacture of boots, shoes and slippers has recently assumed an important position among the industries of California. Several millions of dollars are annually expended for covering the pedal extremities, the principal portion of which going to the Eastern States and Europe. The home manufacture, however, is increasing, rendering the State independent of importation, and adding to the general wealth. The adaptability of the Chinese to that class of manufacture, and the availability of that species of labor, give such advantages that at no distant day the production will so exceed the consumption within the State that boots and shoes will become a portion of San Francisco's exports.

Of other species of clothing the importation far exceeds the home product. The wool is here grown and woven, but the cloth is sent to distant manufacturing establishments to be returned for use. The bad economy of such a course is evident, and invites the manufacturer to occupy the field. The treasure sent abroad for clothing reaches annually to the enormous sum of \$22,000,000, while, with all our tailor shops and other factories connected with furnishing goods, we manufacture less than one-fifth of that amount. The various clothing, hat, shirt, necktie, glove, and other factories of that class, now give employment to about two thousand persons, while the imports show that ten or twelve thousand could be profitably engaged. Thus a single branch of very necessary and simple manufacture, fully developed, could add to our population such a number of producing people as would constitute a respectable city by itself. The labor field is by no means fully occupied while such instances can be pointed out.

Numerous oil works have recently been established, aiding greatly in developing other industries. The Linseed Oil Works of San Francisco constitute all of that class in the State. These have a capacity to consume 2,500 tons of flaxseed annually, and manufacture castor and other vegetable oils. The castor bean is grown extensively in Yuba County, and a mill has been constructed for making the oil. Sunflower and other seeds, some grown in the country and others imported, are also used for making oil, and the business being profitable promises a large increase.