

which is manufactured into blankets, broadcloths, tweeds, cassimeres, and table covers. The goods are of admirable texture and superior finish, finding ready sale and large consumption.

The Mission Woolen Mills having combined with the Pacific Woolen Mills, do a very large and thriving business. The products of this establishment entered into competition with those of many other countries at the grand "Exposition Universelle" at Paris, and carried off the prize for superior excellence. The Mission Works proper were erected in 1861, having a greater capacity than any other like factory in the State. Since its combination with the Pacific Mills its range of textile fabrics has been materially enlarged and diversified, including very superior blankets, broadcloths, cassimeres, tweeds, flannels, shawls, cloakings, hosiery and all sorts of knitted goods. The joint consumption of these mills amounts to nearly three million pounds of wool and two hundred thousand pounds of cotton annually, giving employment to between seven hundred and eight hundred operatives, male and female. The amount of capital invested is over one million of dollars, and the value of the products yearly turned out is from \$2,800,000 to \$3,000,000.

The Pacific Cordage Factory was organized in 1855, and has now grown into large proportions. The rope-works has an extreme length of one thousand five hundred feet, and the spinning department occupies a building one hundred feet long by forty feet in width. The products of the works exceed two million pounds of cordage annually. The success of this establishment has induced the erection of a similar one at Oakland, on a large scale, which will soon be set in operation.

Twelve tanneries supply the leather used in the city, with a considerable surplus for export.

The products of leather constitute an encouraging feature in our manufactures. But a few years since, the boots, shoes, slippers, harness, saddles, etc., were almost entirely imported, the shoe and harness makers exercising their trade mostly in repairing. Now these, in a great measure, are of home manufacture, and the great wealth derived is an incentive to similar enterprises. The Chinese quite monopolize the making of slippers, which were formerly imported at considerable cost; but the cheaper rates at which they are furnished have caused the importation to cease. The success of the Chinese in this department has raised an envious cry of denunciation of cheap labor; but as in this case they entered an unoccupied and neglected field, the act is more for congratulation than regret.

Our harness makers now export their wares largely to the Eastern States, and orders are so extensive that it is impossible to meet the demand. This is not the rough and cheap work, but costly sets of from \$300 to \$500 a pair. By some it is averred that this would only be possible from the fact that harness and saddles are the work of State Prison convicts, and made at rates impossible to free labor; but the contractor at the Prison states that, were his machinery as well established in this city, he could do better by employing workmen at such rates of wages as are in custom.

The works of the California Silk Manufacturing Co., at South San Francisco, are in successful operation. This occupies a large two-story frame building, fifty feet front by one hundred and twenty-five feet in depth, and contains all the suitable machinery for the manufacture of sewing silk, twist, etc.

The Union Pacific Silk Manufacturing Co. have organized, with a capital of \$100,000, and are preparing to engage largely in the manufacture of tram and orgazine sewing silks, ribbons and piece silks, getting their raw material from Japan, China, Italy and wherever obtainable. The works of the company are situated in Visitation Valley, in the southern part of the city. They will employ between one hundred and two hundred hands and produce about \$6,000 worth of goods weekly.

The production of cotton in this State having proven a success, the manufacture of it here is the natural consequence, and for this purpose it is proposed to adapt a portion of the Mission Woolen Mills. The success of the enterprise cannot be doubted.

The manufacture of cigars is rising to unusual importance. There are about one hundred and twenty establishments in this city engaged in the business, employing about five thousand men and turning out

ten million cigars monthly, valued at from \$30 to \$35 per thousand, or an annual product of about \$4,000,000. The chief business is in the hands of American citizens, but the employees are almost exclusively Chinese, of whom many are young boys and girls. The work is usually done by the piece, the operators making from \$5 to \$15 per week, working ten hours per diem. Without the Chinese there would be no available labor that would enable this branch of manufactures to attain the position it has. The tobacco is principally Havana and Connecticut, and about two and a half million pounds are used annually. The tobacco of California, cured by a new process, is said to be superior to all others, and the prospect bids fair for our supplying the world with the seductive weed.

A detailed and minute account of all our various manufacturing industries would exhaust infinitely more space than we have at command and therefore direct attention to the Business Directory commencing on page 675 for a complete list of the manufacturing establishments in operation at the present time.

Water Companies.

SPRING VALLEY WATER WORKS.

The original Spring Valley Water Company was incorporated in June, 1858, and in July, 1861, the water from Islais creek was introduced into the city by the company.

The present organization is formed by a consolidation of the San Francisco City and Spring Valley Water Works companies. Date of incorporation, January, 1865.

The present works receive their supply from two sources—Lobos and Pillaritos creeks. Lobos Creek is a stream of pure, fresh water, emptying into the bay near Point Lobos, which supplies two million five hundred thousand gallons daily. The distance of the stream from the Plaza is three and one half miles, in a direct line. The water is elevated by four double-acting pumps, with a capacity of four million of gallons, daily, propelled by two steam engines of two hundred and fifty horse-power each, to the distributing reservoirs on the adjacent hills, the highest being three hundred and eight feet above the city base, located at the corner of Hyde and Greenwich streets; the second, which is situated immediately below, at the intersection of Hyde and Francisco streets, is one hundred and fifty feet above the city base. The capacity of the first is four million of gallons, and that of the lower, seven million.

Pillaritos Creek is situated east of the coast range of mountains, distant from San Francisco about fifteen miles, in a southerly direction, and seven hundred feet above the level of the sea.

A large dam has been constructed in the Pillaritos Valley, which is ninety-two feet in height and six hundred feet long, containing one thousand million of gallons, and is drawn from as required in the reservoirs. From the east end of Tunnel No. 1, the water is conducted by a flume five by two feet, into a filter and sand-box, in its passage through which it is cleansed from vegetable matter and sediment; it then enters Tunnel No. 2, where the water undergoes another purification, and after passing through thirteen miles of thirty inch wrought-iron pipe, and one mile of forty-inch flume, enters Tunnel No. 3, from whence Lake Honda and the city distributing reservoirs are supplied.

Lake Honda has a capacity of thirty-five million of gallons, and supplies the city by means of three miles of cast-iron mains to the reservoir on the corner of Buchanan and Market streets, which contains two million of gallons, and is the main distributing reservoir, supplying two fifths of the city.

The company has constructed a new reservoir, of fourteen million of gallons capacity, near Holly Park, called College Hill Reservoir, which is the main distributing reservoir for the lower part of the city. There is also a large reservoir in San Andreas Valley, thirteen miles south of the city, containing four thousand six hundred and fifty million of gallons. The water level is four hundred and thirty feet above the city base, from which the city will have a never-failing supply of the pure element.

The present amount of pipe laid down in the city proper is one hundred and thirty miles. Capital stock of the company, \$8,000,000, in eighty thousand shares of \$100 each.