

is a stream of pure, fresh water, emptying into the bay near Point Lobos, which supplies two millions five hundred thousand gallons daily. The distance of the stream from the Plaza is three and a half miles, in a direct line. The water is elevated by four double acting pumps, with a capacity of four millions 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 forty-five feet above the city base. The capacity of the first is four millions of gallons, and that of the lower, seven millions.

Pillarcitos 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 Pillarcitos Valley, which is ninety-two feet in height, and six hundred feet long, containing one thousand millions of gallons, and is drawn from, as required in the city reservoirs. From the east end of tunnel number one, the water is conducted by a flume five by two feet, into a filter and sand-box, in its passage through which it is cleaned from vegetable matter and sediment; it then enters tunnel number two, 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 number three, from whence Lake Honda and the city distributing reservoirs are supplied.

Lake Honda has a capacity of thirty-five millions 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 millions of gallons, and is the main distributing reservoir, supplying two-fifths of the city.

The Company has this year constructed a new reservoir of fourteen millions of gallons capacity near Holly Park, called College Hill Reservoir, which will be 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 millions 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 twenty-three miles. Capital stock of the company, \$3,000,000, in eighty thousand shares of \$100 each.

LAKE TAHOE AND SAN FRANCISCO WATER WORKS.

The rapidly increasing population of San Francisco has caused our citizens to study the momentous question of its water resources. As it is possible that at no distant day the present means of supply may become entirely insufficient for our demands, a number of gentlemen conceived the idea of bringing the waters of Lake Tahoe into this city. To show the vastness of the undertaking, we give the following extent and cost of the work: Lake Tahoe has a superficial area of two hundred and forty square miles, with an average depth of fifteen hundred feet; it is situated in the Sierra Nevada mountains, at an elevation of six thousand feet above the sea, and distant from San Francisco one hundred and fifty miles. The company have constructed a dam on the Truckee river—four miles below its outlet—near Squaw Valley. From thence the water is to be conveyed by aqueduct to the eastern mouth of the tunnel on Forest Hill Divide, which includes Michigan Bluff, Bath, Iowa Hill, Wisconsin Hill, Yan-

kee Jim's, Forest Hill, and numerous other mining camps, with an abundant supply of cheap water. The water required for towns and cities will be taken out of the river at a point above the mining grounds, and run in an open canal, to or near Auburn, and thence by pipe one hundred and eight miles to San Francisco, supplying on its route Sacramento, Vallejo, Benicia, Stockton, Oakland, etc., and affording along its entire course ample quantities for towns, mines, mills, and agricultural purposes. The capital stock of the company is \$20,000,000, divided into twenty thousand shares of \$1,000 each. The estimated cost is \$10,000,000. The officers are: President and Chief Engineer, A. W. Von Schmidt; Trustees; A. W. Von Schmidt, David Hughes, Robert Simson, Joseph Trench, and G. H. Ensign. Office Pioneer Building, 803 Montgomery Street.

To bring the water to San Francisco, a tunnel two and a half miles will be constructed through the mountain, connecting the lake with one of the forks of the American River, through the bed of which the waters will be carried.

NEW WATER COMPANIES.

Several new enterprises, having for their object the supplying this city with water, have been incorporated recently. The San Mateo Water Co., organized September, 1866; capital, \$1,000,000. Messrs. W. E. Barron, F. D. Atherton, T. H. Selby, S. M. Macy and B. Lathrop, Trustees. The San Francisco Water Co., organized July 24th, 1867; capital, \$6,000,000. Messrs. James T. Boyd, Milo Hoadley, and John H. Turney, Trustees. Bay View Water Company, organized July 13th, 1867; capital, \$1,000,000; Messrs. A. W. Von Schmidt, Thomas Hardy, and W. H. Patterson, Trustees. Tanalpais Water Company, organized January 17th, 1868; capital, \$5,000,000. Messrs. O. L. Shafter, James McM. Shafter, Trustees. Mountain Springs Water Company, organized April 23rd, 1869; capital, \$500,000. Samuel R. Throckmorton, Charles R. Bond, and S. R. Throckmorton, Jr., Trustees. Contra Costa Water Company, organized July 26th, 1869; capital, \$500,000. H. W. Carpenter, George Leviston, Jr., and E. R. Carpentier, Trustees.

Manufactures.

In the review of the industrial resources of San Francisco, it is pleasant to notice the great progress made in manufactures, and the important bearing they have upon the welfare of the city as well as of the State. By careful canvas, also from the statistics furnished by assessors, a knowledge is obtained of the extent, growth and condition of this most civilizing branch of industry. San Francisco, being the center of commerce on the Pacific Coast, naturally becomes the center of manufactures, wealth and refinement, and in proportion to the development of the interior will be the grandeur of the metropolis. The resources of the regions contributory to this city are of such a character as to stimulate, by their demands, manufactures of every variety, and thus tend to build up here the most extensive establishments for their supply. The great resource is mining, the prosecution of which is more destructive of articles made by man than is any other labor by which the riches of the earth are made available. The destruction affects almost every branch of manufacture, and the results furnish the wealth that pays for all. To break in upon and penetrate the rocky crust of the earth, and rend from