

the same time essentially a reading people. Not physical alone, but mental activity is a prominent characteristic of our population.

In addition to these libraries, several of the hotels of the city are provided with large and well selected collections of books for the use of guests. That belonging to the What Cheer House numbers about 6,000 volumes of well selected works, connected with which is an extensive cabinet of specimens in natural history, and a large number of paintings, with a marble bust by Powers, copied by that artist from his statue of California, and a fancy head in marble by Gault, an eminent sculptor, which works of art, selected by the proprietor, Mr. Woodward, during his tour in Europe, reflect credit upon his taste and liberality.

Want of space prevents a reference in detail to the numerous public libraries in this city, prominent among which may be named the Mercantile Library Association, containing 24,000 volumes; Odd Fellows', 17,000; Mechanics' Institute, 10,000; Young Men's Christian Association, 4,000; California Pioneers, 2,500; San Francisco Verein, 4,000.

The Masonic Fraternity have made arrangements for the foundation of a library in this city. From the well-known character of those who have the enterprise in charge, it must soon take rank with the leading library institutions in the State. For list of officers, etc., of the different literary institutions in the city, see page 683.

Water Companies.

SPRING VALLEY WATER WORKS.

Capital stock, \$6,000,000, in 60,000 shares of \$100 each.

Officers—Charles Mayne, President; Henry Wattson, Secretary; Lloyd Tevis, Charles Mayne, John Parrott, N. G. Kitile, W. F. Babcock, George F. Hooper, and James D. Walker, Trustees.

The present organization is formed by a consolidation of the San Francisco City and Spring Valley Water Works companies, which took place on the first of January, 1865.

The San Francisco Water Works Company filed its certificate of incorporation on the nineteenth day of June, 1857, and on the twenty-seventh day of September of the year following introduced the water of Lobos Creek into the lower portion of the city, and in January, 1860, the permanent works were completed for the supply of the entire city with water. The Spring Valley Company was incorporated in June, 1858, and in July, 1861, the water from Islais Creek was introduced into the city.

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 millions of gallons daily. The distance of the stream is three and a half miles in a direct line from the Plaza. The receiving reservoir, with a capacity of 800,000 gallons, is located at Black Point, on the bay, from which the water is elevated by four double-acting pumps, with a capacity of 2,000,000 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 fifteen feet above high-water mark, 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 high-water mark. The capacity of the first is 5,000,000 gallons, and that of the lower 8,000,000.

Pillaritos Creek is situated in the coast range of mountains, distant from San Francisco about fifteen miles in a southerly direction. The water is taken at an elevation of seven hundred feet above the level of the sea, through the main coast range by means of a tunnel 1,600 feet in length. A large dam is now constructed on the Pillaritos Valley below the tunnel, which dam is seventy-eight feet in height and two hundred and twenty-eight feet between the abutments. This will cause the water to cover ninety-two acres of land, and makes a reservoir that will contain 900,000,000 gallons, which will be filled during the winter season of the year, and be drawn from as required in the city reservoirs, making this the great retaining reservoir. From the east end of the tunnel the water is conducted across the hills into another large reservoir—Lake Honda, back of the Mission Dolores—by a flume eighteen by thirty inches, with a grade of seven feet to the mile, being thirty-two miles in length. Of this distance six miles are laid of iron pipe, and when the flumes are to be replaced, it will probably be done by iron pipe, of which about fourteen miles would be required to make the entire route of iron. Lake Honda is a fine natural reservoir, three hundred and seventy feet above the sea, with a capacity of 52,000,000 gallons, from which place the water is brought to another distributing reservoir, corner of Buchanan and Market Streets, by means of sixteen and twelve-inch cast iron mains. The Market Street Reservoir is constructed on a high hill, two hundred feet above the sea, and is made of brick and cement; capacity, 1,750,000 gallons. This is the main distributing reservoir, and supplies four-fifths of the city. The upper part of the city is supplied direct from Lake Honda pressure, which will give a good pressure to almost every section of the city. As to the quality of the water, it is now over five years since it was first introduced, and has been carried to every quarter of the world, and given the greatest satisfaction to all who have used it. The Brannan Street Reservoir, also used by the company, has a capacity of 500,000 gallons.

The main dam above mentioned is completed. The company has also completed a tunnel under the mountain separating the San Mateo from the San Andreas Valley, which will be 3,350 feet long—it will save nearly eight miles of the present flume—reducing the main line of conduit from thirty-two to twenty-four miles in length. This twenty-four miles will eventually be reduced to about eighteen miles—as proved by recent surveys. The company is now at work substituting thirty-inch sheet iron pipe for the flume.

The amount of pipe now laid in the city proper, reaches seventy-eight miles.

SAN MATEO WATER COMPANY.

Incorporated September, 1866. Capital, \$1,000,000. The object of this company is to supply the City and County of San Francisco, and the several towns along the San Mateo Valley contiguous to the railroad, with pure mountain water. The sources of supply, which are situated about thirty-five miles from San Francisco, are several streams on the east side of the mountains in San Mateo County.

Officers—William E. Barron, F. D. Atherton, Thomas H. Selby, Simon M. Macy, and Benjamin Lathrop, Trustees.

Manufactures.

The geographical position of California, on the shores of the Pacific, insures her a vast market for her manufactures, while the peculiar location of San Francisco, as the only port of importance