It holds four million gallons. The second, at the corner of Hyde and Francisco streets, three blocks north, and considerably lower, has a capacity of seven million gallons. The second original source of supply, Pilarcitos Creek, traverses the higher ravines of the eastern slope of the peninsular hills which constitute the divide between the ocean and the bay, running north and south through San Mateo County. In Pilarcitos Valley, fifteen miles south of the city, and seven hundred feet above the sea level, the company has built an immense dam, six hundred feet long, ninety-two feet high, and two hundred feet through at the base. This immense dam, forming a reservoir which contains one billion gallons, constitutes their great original source of supply. lu San Andreas Valley, two miles nearer the city, the company has another reservoir containing six hundred and fifty million of gallons. This reservoir is four hundred and thirty feet above the city base. From these two sources, tunnels and flumes having a section of ten square feet and amply provided with sand boxes and filterers to cleanse the water from vegetable matter and sediment, thirteen miles of fourteen-inch wronght-iron pipe, and finally another mile of flume, passes through Tunnel, No. 3, into Lake Honda, four miles southwest of the City Hall. Here, in a little valley expressly provided by nature, the company has changed what was originally a lake into a large double reservoir of sloping-sided masonry, smoothly covered with cement, and holding thirty-five million gallons. A central wall divides this in two, so that in the event of accident, either will suffice to supply the city while the other undergoes repairs. From Lake Honda, three miles of cast-iron mains conduct the water to the Distributing Reservoir at the corner of Buchanan and Market streets, holding two million of gallons, and also to the College Hill Reservoir of fourteen million gallons capacity, which immediately supply the city mains. The present amount of pipe now laid within the city proper is one hundred and fifty-five miles. The capital stock of the company is \$8,000,000, divided into eighty thousand shares of \$100 each.

In accordance with the provisions of the Act of the Legislature, passed March 30, 1874, selected committees of the Board of Supervisors, accompanied by competent engineers, have visited several of the more promising localities within fifty miles of the city, whence the ahundance of pure water, not only for the immediate future but for all possible demands of the remotest time, could be safely brought at reasonable expense. This investigation and exploration, though in successful progress, are yet incomplete, hence any present attempt at a partial

report of them would be obviously premature.

Libraries.

For a city as distinctively absorbed in business as San Francisco, ample provision has been made for the gratification of scientific research or literary taste. Chief among the many institu-tions provided for this purpose, stands the

MERCANTILE LIBRARY, on the north side of Bush Street, between Montgomery and Sansom. The building has a frontage on Bush Street of sixty-eight feet nine inches, with a depth of one hundred and thirty-seven feet and six inches. It is three stories high, with basement and attic. The façade is of the modern Italian style, sixty-five feet to the top of the main cornice, and is surmounted by a mansard roof, with iron crestings. Upon the first floor is the library, containing about forty thousand volumes, the reading room, reference library, ladies' reading room, parlor, and trustees' and janitors' room. On the second floor, the chess and smoking room, writing room, museum, and store room for periodicals. The library room extends the full width of the front of the building, and is fifty-four feet deep with a hight of twenty feet in the clear. tasteful, light, airy gallery, for the convenience of the librarian, is erected on two sides of the The basement contains a lecture room, fifty-eight feet by seventy-four and twenty-four high; supper room, ladies' and gentlemen's dressing rooms, waiting rooms, etc. The whole of the first story front is of iron, as also are all the window dressings, coins, strings, and pilasters of the rest of the front. The interior finish is of kiln-dried, white cedar, varnished; the doors, stair finish, and book cases, of black walnut. In addition to the library is a large list of magazines and periodicals, comprising one hundred and sixteen magazines, twenty-three illustrated papers, about the same number of foreign papers, some eighty-two Atlantic and one hundred and thirtyfour Pacific papers, besides papers from the Sandwich Islands and Cape of Good Hope. number of volumes taken from the library during 1874, was eighty-four thousand seven hundred and sixty-three.

THE MECHANICS' INSTITUE is a fine, three-story brick building, having a frontage of seventye feet on Post Street, south side, between Montgomery and Kearny. The building contains five feet on Post Street, south side, between Montgomery and Kearny. The building contains the library, reading, and chess rooms, a lecture hall capable of seating five hundred persons, a smaller hall, and three stores. The library comprises nearly thirty thousand volumes, among which are many rare and costly scientific and mechanical works. It is expected that this number will be increased in the coming August by the addition of three thousand and three hundred volumes of the British Patent Reports and Specifications donated to the Institute in April, 1874. This will increase the library to considerably over thirty thousand volumes. also one of the official depositories of the Patent Office Reports of the Department at Washington. The Industrial Fairs of this society constitute a prominent and attractive feature of the instructive entertainments of the city. During the past few years they have been held annually, and with such successful results that it is probable they will hereafter yearly delight and instruct the general public. The ninth of these fairs was held last year, in the new