

SUTTER STREET RAILWAY.—This company has now fifteen and two third miles of double track, over which cars run from 5:20 A.M. to 12 P.M. The route over this road is as follows: Commencing at the corner of Broadway and Davis streets, along Broadway to Battery, Battery to Market, Market to Sutter, Sutter to Polk, Polk to Filbert, Filbert to Harbor View; from crossing on Pacific Avenue and Polk, on Pacific Avenue, to Fillmore Street; from crossing of Bush and Polk, along Bush to Fillmore, Fillmore to California, California to Central Avenue, Central Avenue to Point Lobos Road; from crossing of Sutter and Larkin streets, along Larkin to Market, Market to Ninth, Ninth to Mission. The company was incorporated in 1863, began work September 22, 1865, and on May 1, 1866, the first cars, each drawn by two horses, were run from Sansom and Sutter streets to Broadway and Polk Street. In 1872, the company had six cars and twenty-five horses. Now it has fifty-one cars and two hundred and forty horses; twenty-four horses are in constant use. About \$15,000 a year is expended in horses. The service of a horse is estimated at four years on this line. "Bob-tail balloon," or small cars, of a very light build, are a new feature on this line, and a decided improvement. The average daily receipts are \$425; the average daily expenses, including wear and tear, etc., is closely estimated at \$400. From July, 1871, to April, 1873, thirteen dividends of \$2000 each were paid, aggregating \$26,000, about one half per cent.; from April, 1873, to June, 1874, six dividends were paid, of \$2000 each, amounting to about four and one ninth per cent, per year; and from January, 1874, to January, 1876, eight dividends were declared, of \$2500 each, which would be about two and a half per cent. on the amount then invested. The books of the company now show that the road pays but one eighth of one per cent. per month on the capital invested in the enterprise. During the past year a cable wire has been placed in position, by which the cars of this road are drawn up the steep grade of Sutter, beginning at a point near Sansom. This began with the first of the present year. The company has built ten dummies at their shops on the corner of Bush and Larkin streets. For the present it is deemed that these dummies will suffice for the travel over the road. The round trip will be made in forty minutes. The time will be managed so as to obviate the necessity of a change of cars at the lower terminus. As the dummy approaches the turn-table it will be switched off and the car allowed to run down to Market Street, where horses will be ready to take it to the ferry. The company propose to run their cars at intervals of four minutes, reducing the time to two and a half minutes, as the tide of travel sets homeward in the afternoon and evening. The cable is worked by two engines of forty horse power each, located at the corner of Bush and Larkin streets.

CLAY STREET RAILROAD.—This system of running street railroads by wire cable, was invented and patented by A. S. Hallidie, Esq., the most extensive manufacturer of wire and wire rope on the Pacific Coast. Mr. Hallidie's "endless wire rope," was placed on exhibition at the Mechanics' Industrial Fair, at the Pavilion, in 1871, where this wonderful piece of mechanism was admired by thousands. In 1873 the Clay Street Railroad was constructed, and this endless wire rope was tested as an experiment. It proved successful. And San Francisco can boast of the only street railroad in the world run by cable. This road commences at Clay and Kearny streets, and is drawn by an underground steel wire cable to Leavenworth, a distance of about two thirds of a mile. The steep grade averages about fifteen feet in every one hundred. On the top of the hill proper is a stationary steam engine, of forty-horse power. This engine winds the cable up one track and down the other—just like winding cotton thread around a spinning-wheel. These cars move gently, steadily, and smoothly, and the only noise heard is a slight rumbling, underground made by the cable. This cable is of steel wire, three inches in circumference, and as the length of the incline is three thousand three hundred feet, the cable is six thousand six hundred feet, or nearly one mile and a third long. It weighs about five tons. From Leavenworth Street, the road is run by horses, and extends about one mile. This road uses thirteen cars and twenty-two horses, and employs thirty-five men. For the cable portion of the road, nine "gripping-clamp" cars are used. These cars have "clamps" attached, by which they are hitched to the "dummy," and drawn along like a yawl boat in the wake of a steamer. There were one million nine hundred thousand passengers carried over this road during the past year; fare, five cents. The earnings of the road for 1876 are estimated at \$85,000. The road cost, equipped, \$116,328.

THE CITY RAILROAD Co., commonly called "Woodward's," from the name of its principal, if not exclusive, owner, or "Mission Street," from the name of the street upon which most of its property lies, owns and operates one double track, main line—"The Mission Route"—from the corner of Steuart and Mission streets, straight along the latter to Twenty-sixth Street, a distance of three miles; and one branch line—"The City Route"—mostly double track, from Woodward's Gardens, Mission Street, between Thirteenth and Fourteenth, through Mission, Fifth, Market, Dupont, and Sutter streets, to the Oakland Ferry. This line is noted for having first introduced the "bob-tail," or light, one-horse car, seating but fourteen, having no conductor, but requiring each passenger to deposit his own fare or ticket—which he obtains of the driver through a small brass gate swinging horizontally in the front door—in a patent receiver with glass front and back, and a tipping bottom from which, by pulling a strap, the driver slips or drops each fare or ticket as soon as deposited, into a metal box below, which is unlocked and emptied of its contents once each round trip by the secretary or his agent, as the car passes the depot or the office. This company owns forty cars, besides a number of large, open cars for summer excursions; two hundred and

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