

In addition to this amount, there are incidental expenses, which increases this sum to over \$50,000. Notwithstanding the excellent organization and the results anticipated therefrom, there are grave doubts as to its efficiency when compared with the old system, which did not cost the city and county more than one half as much.

MARINE BOARD.—The law creating the Marine Board authorizes the Governor to appoint three Commissioners, to be known as the Marine Board of the Port of San Francisco, who are authorized and empowered to grant or revoke licenses to conduct the business of keeping a sailor boarding house; to prescribe badges to be worn by the runners employed by such boarding houses as may have been licensed; to regulate the shipping of seamen and to prevent their being shipped while under the influence of liquor, etc.; also to guard against the imposition of false and outrageous charges against sailors that have been shipped. The law also provides for the re-capture of deserters, and in fact to stand between the humble seaman and the rapacious sailor boarding-house-runner and landlord. John H. Wise, J. F. Cowdery and P. Crowley are the Commissioners and J. L. Bissell is the Clerk.

STREETS AND HIGHWAYS.—The general suspension of improvements in the past year has been accompanied by a suspension of street extension, but notwithstanding this the various improvements in our highways have been marked and important. There has been no Second Street Cut to make, nor Potrero Hill to pierce, yet other quite heavy works have been carried on. The total length of streets in the city exceeds one hundred miles, of which fifty-four and a half miles are sewered. The total cost of street work up to July, 1869, had amounted to \$8,512,086.40, and for the fiscal year ending July 1st, 1870, \$1,248,130.05, making a total for street work of \$9,760,216.45.

From the report of Mr. M. C. Smith, Superintendent of Streets and Highways, is compiled the following tabular statement of work etc., for the fiscal year ending July 1st, 1870:

WORK.	MEASUREMENT.	AMOUNT.	COST.
Grading.....	Cubic yards.....	1,520,263	\$478,031 11
Macadamizing.....	Square feet.....	2,380,171	169,663 82
Sewers, Brick.....	Lineal feet.....	23,123	213,450 79
Sewers, Redwood.....	Lineal feet.....	8,695	53,629 78
Paving.....	Square feet, Stow.....	461,255	115,988 70
" " " Nicolson.....	" " " ".....	22,965	6,923 37
" " " cobble stones.....	" " " ".....	79,204	14,134 17
Planking.....	One thousand feet.....	3,121,461	105,411 69
Sidewalks.....	Front feet.....	61,293	75,326 81
Crosswalks.....	Lineal feet.....	1,749	3,292 71
Curbs.....	Lineal feet.....	105,612	53,944 29

Since the date of the report of the Superintendent, extensive grading operations have been carried on. Yerba Buena Park, the site for the new City Hall, formerly a succession of sand dunes, has been made a level plain. Streets and Avenues have been laid out upon it, and soon will be erected thereon one of the most beautiful structures that graces any city in the Union. The broad and beautiful Market Street, the dorsal column of the city, has been extended by deep cuttings through the hill near the Protestant Orphan Asylum, giving direct and easy access to an extended tract of country in that direction. Extensive grading has also been done on Sacramento Street, rendering the localities more accessible in that high quarter of the city known as Russian Hill. Within the past year a large amount of grading has been done on both sides of McAllister Street, between Polk and Franklin, and the excavated sand fills the water lots of Mission Bay. The broad Van Ness Avenue, seemingly destined to become one of the handsomest thoroughfares and a desirable quarter for residences, has been the scene of active improvements during the year. Sacramento, Clay and Washington streets, and Webster and Fillmore streets and the blocks formed by their intersection in the Western Addition, have also been greatly improved. Heavy grading has continued during the year on Townsend Street and others in the vicinity of Third, leveling the blocks and opening passage way in that quarter.

PAVEMENTS.—From the earliest dawn of civilization, when mankind have congregated in cities, the greatest desideratum of street engineering has been to prepare such a kind of pavement as would nearest approach indestructibility and fulfill the many other requisites. Massive granite and lava blocks were anciently used, and perhaps many other devices of which we have no record. From the expensive manner in which the cities, anterior to the Christian Era were paved, it is natural to surmise that the subject was as great a study then as at the present day, and that inventors, street constructors, and property owners planned and experimented as now. But there seems to have been a "dark age" of a very long period in the matter of paving, which recent studies promise to illumine. During this long "dark age," the standard pavement has been of cobblestones, the rounded boulder of the glacial period. This, having superseded the elaborate work of the ancients, came to be considered the *non plus ultra* of paving, and the "car rattling o'er the stony street" was a punishment deemed unavoidable by those living in cities. Within the last quarter of a century reflecting men have concluded that the noise and unpleasantness of the cobble pavement could be avoided, and, as all