

tios from whom the material was obtained. The entire cost of these Works is \$150,000, and furnish employment to sixteen persons. The agents of these Works are Wass, Uzday & Warwick."

#### EUREKA REFINERY.

The Eureka Gold and Silver Refinery is situated on the corner of Brannan and Harrisstreets. "The building—a substantial brick structure, one story in height, and sixty feet in width by one hundred and thirty in length—together with the various implements in use, represents a permanently invested capital of about \$60,000. Employment is furnished to an average of from twenty-five to thirty persons. Operations were commenced at the Refinery on the 14th of last March, and continued until August 8th, when they were temporarily suspended. Since that time the facilities have been greatly increased, and in February or March next the business will be resumed. The Refinery has a capacity equal to the refining of twenty thousand ounces of gold per day, or, at \$17 per ounce, \$340,000. The amount refined during the period it was in operation, was equal to \$10,000,000. Messrs. Justh & Hunter are the proprietors.

One laudable feature in the management of this establishment is, that all gold deposited is returned to the depositors in American coin. By an arrangement with the Mint in this City, this desirable result has been reached, and the financial evils consequent upon the issuance of private coin avoided."

#### CHEMICAL WORKS.

The San Francisco Chemical Works are located near the Mission Dolores; FARMER, CHASE & Co., proprietors. These Works have been successfully employed for the past three years in the manufacture of Acids. The average number of persons employed is fourteen, and the amount of Acids disposed of during the past year amounted to over \$100,000.

#### IRON FOUNDRIES.

The various establishments of this character are numerous and extensive. They are five in number—Union, Pacific, Vulcan, Sutter and Fulton—employing, in the aggregate, nearly four hundred men.

UNION IRON WORKS.—The present proprietor, Mr. Peter Donahue, with his brothers, are well known among the most enterprising and successful of the business men of San Francisco. Commencing in 1849 in a small way as blacksmiths and machinists, they continued to enlarge their works as their capital justified, and the business of the city required, until they have extended to their present importance. In March, 1850, the first essay at iron casting was successfully made at these works, consisting

of propeller boxes for the steamer McKim. Although the enormous price of fifty cents per pound was received for this work, it was unprofitable, owing to the great expense of preparing for it. A brick foundry and machine shop has been completed, which with the different machine and boiler shops, etc., covers a fifty vara lot and an adjoining space of 40x80 feet. All the machinery of these works was constructed within them, and the extensive castings and machinery of the Gas Works of this city were also made here. From 50 to 170 men are employed at the Union Works, according to the exigencies of business.

PACIFIC FOUNDRY.—Goddard & Co., proprietors. These Works were established on their present location, September, 1850, by Egery & Hinkley. The improvements consisted of a one-story frame building, 50x50, in which a general foundry and machine business was transacted. December, 1853, the proprietors purchased the interest of the original owners—erected a three-story building, 30x60—and added greatly, by improvements in machinery, etc., to former facilities for meeting the increase of trade. The cupolas, two in number, have a capacity of melting 12 tons of metal per day. The Works employ from 50 to 80 men, and the average annual business is \$240,000 per annum.

VULCAN IRON WORKS Co.—Successors to Geo. Gordon & Steen. The Vulcan Iron Works were established in August, 1851, by Gordon & Steen, for the manufacture of steam engines and machinery. In January, 1853, they were converted into a joint stock incorporated company. Present proprietors, T. A. Monkhouse, S. Aitken, A. C. Austin, Paul Torquet and Charles L. Steiger, the foreman of the various departments, who had been with the concern from its commencement. These works have turned out about 150 engines and 250 boilers, with the machinery of upwards of 170 saw, flour and quartz mills, candle and starch factories, etc. All the hydraulic machinery for raising brick buildings in San Francisco, were invented and made at these works. The amount of wages paid to workmen, including amounts withdrawn by the proprietors, since the commencement in 1851, have been \$400,000. The number of hands employed varies from forty-five to ninety. The business averages \$170,000 per annum.

FULTON FOUNDRY.—Hinkley, Worth & Field, proprietors. These works were established by Worth, Hyde & Field, September 8th, 1855, as a machine shop; July 2d, 1856, facilities were added for casting metals, and changed to present style of firm on the 6th of same month. The works at present keep about thirty hands employed in the different departments.

SUTTER IRON WORKS.—These works were established on the corner of Folsom and Beale streets, January, 1850, by George K. Ghyas, in connection with the International Navigation Company, known as the Aspinwall Company. The buildings were not fully completed until September of the same year, when the works were in full operation, and did a very large business. Prior to September, the work that was transacted by this establishment, was, to a great extent, performed in the open air. Number of hands employed, thirty.

#### BOILER WORKS.

The Boiler Works of Messrs. Coffey & Risdon, is the only establishment on this coast confined to this manufacture exclusively, and are engaged in an extensive and increasing business, employ-