

FOUNDRIES, MACHINE SHOPS, ETC.

There is no department of mechanical industry in this city in which more enterprise and energy is exhibited than in the manufacture of machinery and the working of metals generally. There is probably no city in the Union that will bear a comparison to San Francisco in this respect. The number of establishments is estimated at 220, affording employment to about 1400 persons.

IRON FOUNDRIES.

The number of iron foundries is eight. Aggregate number of persons employed, from 270 to 500.

Union Iron Works.—Mr. Peter Donahue, the proprietor, commenced operations in 1849. These works, situated on the corner of First and Mission, are the most extensive in the city, covering an area of seven full sized water lots. The buildings are of the most substantial kind, all of brick; consisting of foundry, 50 by 60 feet; one machine shop is 40 by 80 feet, and four stories high; one machine shop, blacksmiths' and boiler shop recently completed, 46 by 160 feet. Within these buildings are the best tools to be found in the State, consisting of Wentworth's massive drilling and slotting machines, compound planers, one of Z. Coffin's superior lathes, which swings eight feet, and with the pit lathe can turn a pulley 22 feet diameter; the length of the lathe is 30 feet. One of Nasmyth's steam-hammers is situated in the center of the smith's shop, and a large forge furnace for heavy work has been added since last year. In addition to the tools enumerated above are lathes, planers, drills, and a large riveting machine. The first castings made in this State were at this foundry. The contract for the boilers and engines of the new side-wheel steamer Saginaw was awarded by the Hon. Secretary of the Navy to Mr. Donahue, being the first contract for a government steamer on the Pacific coast. A large beam engine with 50-inch cylinder and 11 feet shaft, is now in the course of construction. Mr. Donahue manufactures Woodward's Patent Steam Pump, and gives employment to from 90 to 150 men.

Vulcan Iron Works Co.—Successors to George Gordon & Steen. The Vulcan Iron Works, located on the corner of First and Natoma, 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. Pres-

ent proprietors, S. Aitkin, Paul Torquet and Charles R. Steiger, who have been with the concern from its commencement. These works have turned out about 200 engines and 400 boilers, with the machinery of upwards of 300 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 number of hands employed varies from 60 to 80. The business averages \$270,000 per annum.

Pacific Foundry.—Goddard, Hanscom & Rankin, proprietors. These works were established on their present location, First street, between Mission and Natoma streets, September, 1850, by Egery & Hinkley. The improvements consisted of a one-story frame building, 50 by 50 feet, 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, 30 by 60 feet, and added greatly, by improvements in machinery, etc., to former facilities for meeting the increase of trade. In December, 1858, another addition was made of a brick building, 60 by 80, which is used for melting purposes alone. The eupolas, three in number, have a capacity of melting 16 tons of metal per day. The works employ from 60 to 80 men, and the average annual business is \$240,000.

Fulton Foundry.—Hinkley, Worth & Field, proprietors. These works were established by Worth, Hyde & Field, Sept. 8, 1855, as a machine shop; July 2, 1856, facilities were added for casting metals, and changed to present style of firm on the 6th of same month. The works are located on First street, between Market and Mission, and at present keep about 30 hands employed in the different departments.

Abilene Foundry.—Spratt & Debie, proprietors; Pine between Sansome and Montgomery. These works are principally employed in the manufacture of steam engines, grist and quartz mill machinery, and castings for house fronts. Number of men employed, 15 to 25.

Miners' Foundry.—Howland, Angell & King, proprietors; First between Howard and Folsom. These works, recently established, have extensive facilities for the manufacture of every description of quartz and milling machinery, steam engines, etc. Number of hands employed, 28.

Shaw's Foundry.—This is a small foundry connected with the Agricultural Implement Manufactory of T. Ogg Shaw & Co., Sacramento