

is estimated at between three and four hundred, giving steady employment to over 2,000 hands.

#### IRON FOUNDRIES.

The number of Iron Foundries now in operation in this city is fourteen, which give employment to from seven hundred and fifty to one thousand persons.

##### UNION FOUNDRY AND IRON WORKS.

Messrs. Donahue, Booth & Company, proprietors. This pioneer establishment, the oldest of its class in San Francisco, was put in successful operation in 1849 by the enterprising Donahue Brothers, since which time it has steadily increased in extent and importance, and has remained the foremost work of its kind in the city. In this establishment is to be found all the recent improvements and extensive machinery and appliances used in similar foundries in Eastern cities. The engines manufactured at these works have been thoroughly tested, and bore away the palm of superiority. In addition to steam engines for navigation purposes, the Union has during the past year furnished a large amount of mining machinery, comprising twenty-five mills averaging fifteen horse-power each. The average number of hands employed is one hundred and forty-three, and not less than three tons of pig iron and two and a half of coal are used daily, with an average of 3,000 tons of wrought iron every week. A large number of Varney's and Wheeler & Randall's Amalgamating Pans have been manufactured here.

##### PACIFIC IRON WORKS.

Goddard & Co. proprietors. Next to the Union, the Pacific is the oldest establishment of the kind in the city, the works having been established on their present site, First Street between Mission and Natoma, in September, 1850, by Messrs. Egery & Hinkley, whose interest was purchased in December, 1853, by the present proprietors, who erected the present spacious buildings and enlarged and increased the works. The daily running expenses of the establishment reach about \$2,000; the machinery is driven by an 80 horse-power engine. The melting capacity of the largest cupola is ten tons; there are two others, the aggregate capacity of which is ten tons, making a total of twenty tons. These works made, during the past year, three 80 horse-power engines, five 60 do., twelve 45 do., seventeen 30 do., four 12 do.; and four quartz mills, from 5 to 40 stamps each; seventy-eight amalgamating pans; forty-nine amalgamating barrels; forty-three 9-in. stamp shoes and dies; eighty-three boilers, ranging from 20 to 100 horse-power. In addition to the foregoing, a large number of grist, sugar, and saw mills, and castings for agricultural implements were turned out. The average number of hands employed is about one hundred and fifty. Pig iron consumed twelve to fifteen tons per week, with a proportionate amount of wrought iron and boiler plate.

##### FULTON FOUNDRY.

Hinkley & Co. proprietors, 45, 47, and 49 First Street. Established 1855. Men employed at present fifty-five. The machinery for a large number of steamboats has been manufactured during the past two years. Extensively engaged in the manufacture of saw-mill machinery. Many additions have been made to the stock of tools during the last year, and the facilities at the present time are equal to any shop for manufacture of all kinds of machinery for steamboats, quartz-mills, flouring-mills, etc., etc.

##### VULCAN IRON-WORKS COMPANY.

R. Ivers, President; C. R. Steiger, S. Aitken, proprietors. The Vulcan Iron Works, located on First Street, 137-139, were established in August, 1851, by Geo. Gordon & Steen, for the manufacture

of steam engines, boilers, and machinery. In January, 1855, they were incorporated as a joint-stock company, and in April, 1857, became the property of the present owners, who have been with the concern from the commencement. Steam engines and boilers of every variety are constantly turned out at these works, which have also supplied the machinery for a number of saw, flour, and quartz mills on this coast; all the hydraulic machinery for raising brick buildings in San Francisco was invented and made at these works, and the first locomotive built in the State was built there. Every class of mining, pumping, and hoisting machinery can be obtained from this firm, who take especial pride in keeping up with the vast improvements lately made in mining machinery. Hepburn & Peterson's Amalgamating Pan is manufactured here, as also their Separators. This establishment now employs 200 to 250 men, and have during the last year extended their works by the addition of several large shops on the East side of Fremont Street between Mission and Howard.

##### GOLDEN STATE IRON WORKS.

Palmer, Knox & Co., proprietors. This extensive establishment is located on First Street near Market. The operations of this concern have, owing to the unusual demand for mining machinery, been confined almost exclusively to that class of manufactures in which the production of amalgamating machinery, Knox's Pan with Palmer's Improved Patent Steam Chest and False Bottom, now in general use, are being turned out in large quantities. A number of quartz mills, steam engines, Tyler's Water Wheels and Blake's Crushers have been manufactured here during the past year. The Golden State gives constant employment to about fifty men.

##### MINERS' FOUNDRY.

This establishment, which, as its name imports, is devoted mainly to the furnishing mining machinery, of which, owing to the increased demand in this department during the past year, a large amount has been sent to the silver mines of Washoe, Esmeralda, and Mexico. During the past year one hundred and twenty-five hands have been kept constantly employed at this establishment, and the business during that time has amounted to \$500,000. The business is conducted by Messrs. Howland, Angel & King, practical mechanics, who are thoroughly posted in all the important improvements in mining machinery, which the present activity in that department is daily developing. Within the past year there has been manufactured and forwarded to Idaho Territory three quartz mills, also a number of mills and other mining machinery to Washoe and Mexico. The Miners' Foundry is located on First Street, between Howard and Folsom.

##### CALIFORNIA FOUNDRY.

William Brodie & Co., proprietors. These works, located at 16 Fremont Street, employ a large number of workmen in the preparation of castings of every description, such as house fronts, leaves, trusses, window caps, sills, quoins, and also light and heavy castings of every description.

##### JOHN R. SIMS' IRON WORKS.

Established 1853, for the especial manufacture of fire-proof doors, shutters, bank vaults, gratings, cemetery railings, balconies, verandas, and ornamental house work of all kinds. Works on Oregon Street near Front. Number of hands employed, fourteen.

##### PHENIX WORKS.

These works, owned by Jonathan Kittridge, are extensively engaged in the manufacture of every description of iron doors, shutters, bank vaults, safes, and every description of blacksmith work. Located at 6 and 8 Battery Street.