

The manufacture of acids, ink, powder, shoe-black, axle-grease, and articles of that class, is improving, and although importations of most varieties continue, the demand promises soon to be supplied by the home product. For ink alone some \$50,000 are expended annually for the supply of the Pacific Coast, mostly going to the great manufactories of the East. There are now two establishments in San Francisco endeavoring to supply the want and stop further importation.

The manufacturing and refining of spirituous and malt liquors engage a large capital, and constitute an enormous business. There are three distilleries which produce \$2,000,000 worth of alcohol and alcoholic liquors annually. Besides these, are four refineries and four factories of cordials, bitters, etc. Twenty-eight breweries furnish one hundred and twenty thousand barrels of beer annually to the thirsty people of the city, for which eighteen million pounds of barley are used. Throughout the State, breweries are numerous, and in all the grape-growing districts are manufacturers of wine and brandy. The climate and soil of California being most favorable for the growth of the grape, it may be considered one of our most important resources, and at some day, when civilization and its appetites have extended throughout the countries bordering the Pacific, will become one of the chief articles of export.

The manufacture of flour and its many products figures largely in our statistics of home industry. In the city are six flour mills, producing upwards of three hundred thousand barrels of flour annually. Throughout the State are one hundred and fifty-eight flour mills, with a capacity of producing 16,727 barrels of flour daily. The market for this is found in our own and neighboring States and Territories, the islands of the Pacific, and a large and increasing demand in the Eastern States and Europe.

Cigar manufacture is rapidly increasing in extent and importance and the reputation the cigar makers of San Francisco have obtained has brought them considerable business from the East. There are in this city upwards of one hundred cigar factories which turn out annually goods to the value of \$2,500,000. This work is done mostly by Chinese, whose skill, and faithfulness of labor have done more to build up the business than cheap rates of labor.

The type foundries, of which there are three, have so increased their capacity as to be able to supply all the demands of the coast, and the islands and countries of the Pacific. As our civilization and language spread over the ancient countries of Asia, recivilizing the oldest of nations, the type maker will play a prominent part in the course. The mines of our section give the type foundry in this city an advantage they can ever maintain. From the Montezuma mine of Humboldt county, Nevada, an excellent type metal is obtained, which with but the simplest preparation is ready to be cast into letter.

The making of wire rope and cordage is extensively carried on by three different establishments, producing of wire rope \$100,000 worth, and of hemp rope \$500,000.

For the manufacture of blank books, there are seven establishments, giving employment to nearly two hundred persons, and producing goods to the value of \$335,000 per annum.

Such is a brief review of the principal manufactures of San Francisco, already important, constantly extending and with inducements to further extension until it becomes one of the leading manufacturing cities of the Union. Coal, the thing necessary for the propulsion of machinery in this city, is found in abundance near at hand, and in many localities along the northern coast. It is the favorite element of power, and notwithstanding the many

fine mill streams throughout the State, four-fifths of all the manufactures of California are established in San Francisco where all machinery is propelled by steam.

The manufactories of the State are far less in importance than the interest demands or the opportunity offers. In no country of the world is a greater or more convenient water power, nor is there a country of greater consumers. Agriculture, the mines, and forests supply the raw material in infinite variety, and in turn demand every manufacture. These features should attract the attention of the enterprise and capital of the world. California is the empire State of the Pacific and with the mineral regions constitutes one of the most independent, self-sustaining sections of the globe.

It is a country of hills and valleys, mountains and plains, with a fertile soil, majestic forests, rich mines of every mineral, and a climate devoid of tempests, floods and frosts. No storms of destructive force, nor lightning of uncontrollable power, threaten danger; the freshets are marked and regular, from which the slightest precaution gives security, and here is no winter's cold to clog the streams with ice or stop the moving machinery. The lofty Sierra gathers its reservoir of snow and sends it down in perennial streams, affording a continuous power sufficient to propel all the machinery of the world. The very abundance of these streams and the infinite power they would give, have caused them to be neglected. From north to south, along the western slope of the Sierra Nevada, for full five hundred miles, these torrents rush from mountains clothed with mighty forests and stored with the richest mines, and debouch upon one of the most magnificent and fertile valleys of the world. Many of these rivers, soon after entering the valley, become navigable streams, showing the immense volume of water that comes tumbling down from the mountain heights. All the manufacturing machinery, which has made Rochester the great city it is, could be propelled by the Feather river at Oroville; the American at Folsom would turn all the spindles and wheels of Lowell and Lawrence; the Tuolumne would answer for the James at Richmond; and the Merced, Fresno, Kern and countless others of our own State, at eligible and most convenient sites, could give motion to all the machinery of the Union.

South of the great valleys, the rivers are not so numerous, nor do they offer such facilities for manufacture; but there are several flowing from the mountains of San Gabriel and San Bernardino, of rapid fall and large volume, which would give great power were they properly applied.

Flowing into the ocean, from the northern coast mountains, are a large number of noble mill streams many of which are already appropriated to manufacturing purposes, in cutting up into merchantable lumber the forests of redwood which cover the seaward slope of the range. The principal of these are the Russian, Wallhalla, Garcia, Novarra, Albion, Big River, Noyo, Matoli, Eel, Mad River, Redwood, Klamath and Smith rivers, with their branches and other smaller streams. The Klamath is one of the great rivers of the Pacific coast, and pours an immense and impetuous torrent into the sea; but by cause of its deep cañons and its winter floods, sometimes raising it ninety feet above low water, it is least available for the purposes of turning machinery. The others, however, possess great value and furnish the sites ready at hand for the enterprise of the manufacturer.

Such are the facilities throughout California for obtaining the most effective and inexpensive of powers. Reference has been made only to those points where the streams afford power contiguous to the great valleys or channels of commerce, and to the higher branches of manufacture. Entering the mountains, the infinity of power the many streams afford,