

depth of only six feet, we have, at 43,560 square feet to the acre, a body of mud equal to 5,227,200 cubic feet; allowing twenty cubic feet to the ton, we have 2,613,600 tons of air dried mud; if now we estimate the yield of borax at ten per cent. instead of fifteen per cent. as per working analysis, we have a mass in sight containing at least 261,360 tons of the biborate of soda (borax) and a very much larger amount of the carbonate. Some eighteen months since, there was reported a discovery in the southern part of the State, of a substance resembling the borate of lime found in the vicinity of Iquique, Peru, which an analysis, however, proved to contain no boracic acid.

The causes which produced the crystals of borax, being doubtless still in operation, the supply from Imperial County may be deemed inexhaustible.

SULPHUR.

This metalloid is found in various places in the State; chiefly in the counties of the Coast Ranges. Its presence is reported in Klamath, Lake and Colusa; in Santa Barbara, near the Mission San Buena Ventura, eight and a half miles from the Ocean; also, in Los Angeles.

Works for purifying the crude sulphur by sublimation have been erected upon the grounds of the Borax Company, with a capacity per day of eight to ten tons of the refined article.

UNDEVELOPED RESOURCES.

The State of California is rich in minerals, other than those above enumerated, and whose development is merely a matter of time; amongst these we may enumerate the following:

TIN.

The ores of this metal are reported in the county of Los Angeles, on the Rancho Temescal, claimed by Don Abel Stearns. The mines are located thirty miles southwest of the town of San Bernardino. The tract of land whereon the ore has been found contains about five square leagues, and is bounded on the north and northwest by the Rancho La Sierra and the Santiago Mountains, on the west by the Santa Ana Plains, and on the south by the Rancho La Laguna. The district contains some five hundred different claims, on one of which a shaft has been sunk, from which, as reported, seventy-five tons of ore have been extracted. The mines are now idle, on account of water and disputed title.

IRON.

Deposits of iron ores, hæmatites, and magnetic oxides are reported at various points, but nowhere in the State have any efforts been made to undertake the erection of smelting works. Iron ores are found in Lake County, ten miles from the lower lake; in Santa Clara, near Gilroy; in Butte, extending from the southern boundary of Plumas to a point on the south side of the Feather River; in Calaveras County, to the north of Murphy's; and near Auburn, in Placer County.

Of the minor minerals we may mention:

Chromic Iron, used for preparing green and yellow pigments, and for chromates of potash and soda, occurs in Serpentine, near the Crimea House, Tuolumne, and in Monterey and Santa Clara.

Manganese, of excellent quality, at Red Rock, in San Pablo Bay, and on the Peninsula of San Francisco.

Graphite, or *Plumbago*, is found in large quantities in Los Angeles, within eight miles of the ocean; in Mariposa, Tuolumne, and Calaveras.

Gypsum, in large masses, occurs in several of the coast counties, Santa Cruz, Los Angeles, and San Diego.

Cobalt and Nickel, in small quantities, are reported near Dutch Flat.

Fire Clays are found in the coal measures of Mt. Diablo, and discoveries of *Kaolins* are reported in Mendocino and Napa.