

Continuous crushing was not carried on, the mill being kept running only 237 days, of twenty-four hours each, during the year. The ore is dried in five kilns, each capable of holding 80 tons of quartz. There is, however, a revolving furnace in course of erection, which is to be used in place of the kilns for drying the ore. The cost of mining the quartz is 18s. 7d. per ton, and of milling and cyanide treatment 16s. 1d. per ton. Twenty-four men were employed at the mine and eleven at the mill. This mine is under offer to an English company, but negotiations were not completed at the 31st March. The manager, Mr. J. R. S. Wilson, says, "For future works I have recommended to sink to a depth of 200 ft. or 300 ft. to prove the value of the lode below the present workings, and if found to be payable, then to start a main shaft on our eastern boundary, and sink to cut the underlie of the reef. The pumping and winding would only be to our present low level, and quartz could be conveyed to the mill on our present tram-line. The crushing machinery recommended is a Krupp mill to work in conjunction with the present plant, and eight vats and sumps in addition to the eight vats of 22-ton capacity used at present."

*Jupiter Mine* (Area, 300 acres).—This property is situated to the southward of the Kapai-Vermont, and has been prospected by a tunnel 600 ft. near the south boundary of that mine. The rock was of a hard nature for some distance, but has lately been of a more kindly character, 100 ft. must yet be driven to intersect the line of the main Try Fluke reef. In surface drives and trenches several small veins have been discovered. The object of this company at present is to prospect the property and locate the reefs. Eight men were employed.

*Mariposa, formerly Try Fluke Mine*.—This mine consists of an area of 106 acres, and has been transferred from the Try Fluke Gold-mining Company to the Mariposa (English) Gold-mining Company. In consequence of the change of ownership development works have chiefly been carried on, and the yield of gold is less than that for the previous year. The mine is now well opened up, sufficient quartz being in sight to keep a much larger number of stamps at work. Fifty-two men were employed. Mr. John Goldsworthy, the mine-manager, gives the following description of the mine-workings and machinery used in the treatment of the ore:—

The mine is opened out at four levels; the depths from the surface are: No. 1 level, 100 ft.; No. 2, 200 ft.; No. 3, 320 ft.; No. 4, 440 ft. The No. 1, or Try Fluke, reef has been driven on and worked to a considerable extent in the levels above mentioned. No. 3 lode has also been worked at No. 2 and No. 3 levels, and has produced a large quantity of payable ore. No. 1, or Try Fluke, reef varies in size from 1 ft. to 20 ft. in thickness, and has been worked at Nos. 1, 2, and 3 levels, producing a large quantity of payable ore. The machinery used for crushing is as follows: One fifteen-stamp mill and two berdans, driven by a 20-horse-power steam-engine. The weight of each stamp is 9 cwt. The cyanide plant consists of four vats (capacity, 20 tons each), two sumps, one dissolver, and one solution storage-vat. This plant is capable of treating 25 tons per day. The ore is treated by the wet process, and is crushed in the usual way by stampers. The whole of the crushed ore passes over copper-plates, and the principal portion of the coarsest gold is saved by quicksilver amalgamation on plates and berdans. The whole of the tailings are caught and saved in pits outside of the mill. The tailings are drained fairly dry, and then trucked into the vats and treated with cyanide solution. The extraction is satisfactory; there is very seldom more than from 16 gr. to 24 gr. of gold per ton left in the tailings after treatment. The mill has not been running full time. We have, however, put through 5,305 tons of ore, for a return of 1,865 oz. of gold; value, £4,150 0s. 1d. Battery returns, 1,050 oz.; cyanide, 815 oz. The mill at the present time is only working one shift, and is used more as a plant to test the value of the ore in the various levels. The object of the new company is to thoroughly open up the mine by driving on the reefs at the various levels. There is over 1,200 ft. to drive on the main reef, and also on No. 2 lode, with backs varying in depth from 140 ft. to 160 ft. from No. 3 level. At No. 4 level we have still about 1,800 ft. to drive on the No. 1 and No. 2 reefs, with backs of 140 ft. untouched for the whole distance. Development works are now being pushed on, and contracts are let for driving on the No. 1 and No. 2 reefs at the various levels. At No. 3 level, Fluke section, we are driving, rising, and sinking on the No. 1 and No. 2 lodes. We are also driving a cross-cut east of any of the lodes at present being worked, for the purpose of prospecting the eastern portion of the company's property. We are also driving south in the Venus section of the mine, on the Red Mercury and Try Fluke lodes. In Mariposa section drives north and south are being driven on the main reef. At No. 4 level the main drive on the reef has been driven about 560 ft., and a rise put up to No. 3 level. We are also sinking a winze on No. 2 reef from No. 3 level; the depth is 100 ft., and we expect to hole through to No. 4 level in a short time. The cost per ton for mining ore, not including development work, is about 8s.; cost per ton for crushing, 5s.; cost per ton for cyanide treatment, including labour, 4s. 11½d. The object of the company is to open up the mine, with a view to working on a large scale, with increased crushing-power. Plans are now being made for a forty-stamper mill, with all the latest improvements, which will shortly be erected.

*Great Mercury Mine* (Area, 28 acres 12 roods).—This mine is situated on the spur lying to the northward of the Mariposa, late Try Fluke, and between that mine and the Irene. The ground is well opened up, and operations were carried on for a portion of the year only, protection having been granted for the claim. About 3,772 tons was crushed, for a yield of 1,579 oz. 7 dwt.; value, £1,328 6s. 4d. Twenty men were employed.

*Irene Mine* (Area, 57 acres).—This mine is now held by the Irene (Hauraki) Gold-mine (Limited), London. The mine is opened by three cross-cuts—No. 1, 290 ft. long, 190 ft. below top of hill; No. 2, 150 ft., 220 ft. below top of hill; and No. 3, 250 ft., 297 ft. below top of hill. A lower level cross-cut has been driven 230 ft. 443 ft. below top of hill. Driving was done on the reef at No. 1 level 150 ft., at No. 2 450 ft., and on the intermediate level 175 ft. The main reef averages from 3 ft. to 4 ft., and dips slightly to the eastward. There are other reefs in the ground, but sufficient work has not been done on them to show their general characteristics. The mill consists of ten stamps, 950 lb. each, and five berdans, with a cyanide plant of one 20-ton leaching-