

worked are the Liverpool reef, 1 ft. wide, and the Wade reef, 9 in. The quantity of quartz sent to battery was 294 tons, which yielded 361 oz. 10 dwt. of gold, valued at £1,008 9s. 9d.

West Coast Mine.—This claim is still worked by the owner, Mr. John Northey. Forty-nine tons of quartz yielded 47 oz. 7 dwt; value, £122 3s. 6d.

Little Maggie Mine.—This claim adjoins the Nonpareil. William Bright, the owner, has been engaged in driving and stoping on small leaders and stringers. Fifteen tons of stone has yielded a return of 16 oz. 2 dwt. of gold.

Infant Claim.—This is worked by the owner, J. Johnson. Eight tons of stone from small leaders and stringers gave a return of 8 oz. 17 dwt. of gold.

Hauraki Golden Age Special Claim (Area, 71 acres 3 roods 29 perches; owners, Hauraki Golden Age Mines, Limited).—The main reef, the Golden Age, is very mullocky, and varies from 4 ft. to 30 ft. in width. The work carried on in 1897 comprised cleaning up the adits and relaying roads, cleaning out old levels and winzes and driving prospecting levels, sinking winzes, and generally prospecting and developing the property. No mine machinery is employed at present, but £1,712 has been spent on an aerial tramway. The mill machinery comprises one 220 brake horse-power steam-engine for driving new forty-stamp mill, &c. Pelton wheel—one driving old twenty-one-stamp mill and thirteen berdans; rock-breakers—two Blake-Marsdens, for new mill; sixty-one stamps for wet-crushing (forty new and twenty-one old); thirteen berdans; two concentrators (not erected). Capital expended on mill machinery, &c., in 1897, £7,962. Average number of men employed, thirty.

Waiokaraka District.

Thames-Hauraki Company.—The erection of this company's pumping plant has proceeded very slowly during the past year, owing to the machinery coming out piecemeal from the contractors, the Sandycroft Company in England, and, strange to say, the parts that were shipped first were those that were not required until the whole of the other portions were put together; indeed, it was a long time before the bed-plate for the pumping-engine came to hand. The same thing took place with the pump-pipes; they were the first shipment that arrived, but no girders or bed-plates arrived for twelve months after the arrival of the first shipment of pipes. A cablegram has been received from London that the whole of the machinery was shipped on the 15th April last, so that it is expected here in the beginning of June. The position at the present time is as follows: Ten steel Lancashire boilers, 30 ft. long and 7 ft. in diameter, have been put together and riveted up by Messrs. Price Brothers, of the Thames. These have been erected in position, and fitted with Howl's patent furnaces for burning slack coal. Each of the boilers was tested up to a pressure of 300 lb. per square inch, by hydraulic pressure, before leaving Messrs. Price Brothers' establishment. The Howl's furnaces, which are fitted into the internal flues of these boilers, will effect a great saving in the consumption of fuel. Everything has to be burnt to ashes sufficiently small to come through a hole or slot about $\frac{1}{4}$ in. wide. Although none of these furnaces have been actually tested in this plant, similar furnaces are fixed to some of the boilers in Auckland, which burn any rubbish in the shape of fuel, and give the greatest satisfaction. The principle of these patent furnaces is that the fuel is charged on to plates having narrow slots instead of fire-bars, and there is a jet of steam brought from the boiler and introduced underneath the plates. The steam, passing through the hot fire, is relieved of its oxygen, and the hydrogen is set free, and burns. This jet not only carries a draught, but also increases the heat of the flame from the fuel. The boilers are all built in side by side, having flues on sides and underneath. These lead into a large flue 3 ft. in width and 7 ft. in height, which goes along the back end of the rows of boilers, and leads to the chimney-stack. The flame, after passing through the internal tubes, passes into the flue underneath the boilers, and returns to the flues at each side. The back end of each side-flue is fitted with a damper to regulate the draught in each boiler. A feed-pump of the Worthington pattern is provided to supply the boilers with feed-water. On the front end a large concrete floor is constructed to hold a supply of fuel, and the whole is covered in by a substantial building of wood and corrugated galvanised iron. Pumping-engine: The bed-plates are laid down and fixed in position, and both the high- and low-pressure cylinders are bolted on the beds, with the girders and pillow-blocks for the crank- and pumping-shafts; but none of these shafts are yet in position, the engine crank-shaft and fly-wheel, with spur- and pinion-wheels, not having yet come to hand. A large travelling crane is erected across the building overhead to lift the different portions of the machinery into position. This crane, although only guaranteed to lift 12 tons, has lifted the heaviest portions of the machinery into their places, some of these being 17 tons weight. A small steam starting-engine has yet to be erected alongside the pumping-engine. Concrete foundations were made at each side of the pumping-shaft connected with the main concrete block on which the pumping-engine rests, and on the top of this foundation two heavy wrought-iron girders have been placed across the shaft, and also over the whole length of the concrete on each side of the shaft. These girders are all riveted together and joined at each end with cross-girders, and firmly bolted down to the concrete foundations. Pillow-blocks are bolted on to the top of the girders to receive the axles of the quadrants. On the side next the pumping-engine two large diagonal wrought-iron girders are butted at the ends against the pillow-blocks on the girders for the quadrants, and at the other end, against the foundation for the pumping-engine, to act as struts, and to prevent any movement of the quadrant pillow-blocks or bed-girders. These struts are secured to engine foundation and girders at each end with strong bolts. The quadrants are made of wrought-iron and strongly riveted together. These are on the ground alongside the shaft ready to be lifted into position. The side connecting-rods for the quadrants are of wrought iron, and are on the ground, but the main connecting-rod has not yet come to hand. A capstan-engine, with two 6 in. cylinders, is erected, with screw-wheels, and also spur-wheels and pinions, having helical teeth, with winding-drum for capstan-rope, which is what is termed a 6 in. steel