

5 ft.; windbore for first set of plungers; top and bottom clack-piece; T piece to receive the rising main and air-vessel. The two 25 in. plungers are in position, and the necessary connections made with the rising main, which is completed up to the surface. 180 ft. of the 10 in. pump-rods have been connected. At the 270 ft. level two chambers, one on the east and the other on the west side of the shaft, have been excavated. These are for the side-levers to work the draw- or bucket-lifts, and are already in position."

*May Queen, Hauraki.*—The operations of this company for the past year have been confined to opening up the No. 1 and No. 2 Cardigan reefs on the No. 6 level from the shaft in the Saxon section of the property. The entire property consists of four sections of reefs—namely, the Saxon, May Queen, St. Hippo, and Lone Hand. A good deal of prospecting has been carried on near the surface in the two latter sections of the property, and recently a double-cylinder steam-engine and two Lancashire boilers have been provided, to be used for winding and pumping in a shaft proposed to be sunk near the boundary of the St. Hippo and Lone Hand sections.

The whole of the known payable ore was taken out of the lodes in the May Queen and Saxon sections down to the present water-level prior to the present company taking over the property, and, as there was no hope of being able to sink to a greater depth until the new drainage plant is erected at the Thames-Hauraki Company's shaft, the present company decided to construct a cross-cut from the lowest level in the Saxon workings, to prospect a portion of the mine in which no work had been done. This resulted in two new reefs being found, which are now called the Cardigan Nos. 1 and 2. Both these reefs are small, varying from 4 in. to 18 in., and so far as workings have been carried on the ore from the No. 2 reef has averaged 1 oz. gold to the ton. Where the No. 1 reef was cut the ore only contained about 5 dwt. of gold per ton, consequently no work was done on this for some time; but after stoping was commenced on the No. 2 reef, and it was found to be payable for working, the No. 1 reef was driven on in an easterly direction, and recently specimen stone has been met with, and a level is now being constructed to work it. The May Queen shaft has been enlarged to 12 ft. by 5 ft. in the clear down to a depth of 520 ft., which is the present drainage-level at this shaft, and no further progress can be made in this section until drainage is effected at deeper levels. This company in particular is very anxious that the drainage appliances of the Thames-Hauraki Company be completed, as there is a rich chute of ore to be seen all along the floor of the lowest level in the Saxon, May Queen, and Cardigan lodes. Since the company commenced crushing in June last from the Cardigan No. 2 lode the yield of gold up to the end of April was 1,326 oz. 5 dwt. from 1,296 tons of ore, the value of the gold being £3,576 10s. 1d., which is equal to a value of £2 15s. 2d. per ton of ore.

#### *Block XXVII. District.*

*Deep Sinker Section.*—Work in the Deep Sinker Section of the Thames-Hauraki Goldfields' property was commenced in July, 1896, by sinking a main pumping- and winding-shaft. The size of the shaft is 12 ft. by 5 ft., and the first 105 ft. of sinking was through alluvial drift, and no machinery was required up to this point. At this depth, however, water was met with, and arrangements were made for the purchase of a winding-engine and a 4 in. Tangye pump, which was considered capable of coping with the water in the shaft at that time. The winding plant erected was a most complete one of its kind, and is capable of winding to a depth of 1,000 ft. The engine is of the horizontal type, with cylinders 16 in. diameter and 30 in. stroke. It is powerfully geared, and has two winding-drums 9 ft. in diameter. Sinking was continued until December, 1896, when it was found that the Tangye was not suitable for further sinking, partly owing to the nature of the country being passed through containing gritty material, which had a deleterious effect upon the numerous valves connected with the pump. This was therefore discarded, and a 10 in. plunger and draw-lift pump erected, which has continued to work satisfactorily to the present time. Two sets of plunger gear in connection with the pump are already fixed, one at the 200 ft. level and the other at the 400 ft. level. The shaft has been sunk to a depth of 460 ft., and a chamber opened out at the 450 ft., leaving 10 ft. for a well. From this chamber a cross-cut has been started in a northerly direction to cut the Una and Vanguard reefs, which were cut at the surface level in the South British tunnel, and another cross-cut in a southern direction, to cut other well-known reefs. The northern cross-cut has been extended a distance of 250 ft. Hitherto the hauling has been done in buckets, but since commencing to open out at the 450 ft. level two patent safety-cages have been fitted in the shaft, so that the material is now brought to the surface in trucks. This section of the company's property is situated in the heart of the Thames Goldfield, and consists of virgin ground which has hitherto been unworked for want of capital to sink through the alluvial drift, and for the difficulty in securing a freehold for the shaft-site. The shaft is situated 2,200 ft. south of the Queen of Beauty shaft, and it is intended to drive from each shaft towards the other to effect a junction.

#### *Shortland District.*

*Deep Levels Consolidated Section.*—The work carried on in this section of the Thames-Hauraki Goldfields' property has been the driving of an adit tunnel. This has been driven into the hill known as Mount Pleasant for a total distance of 1,136 ft., at a depth of 150 ft. below the surface. The size of the drive is 5 ft. 6 in. at the bottom, 4 ft. 6 in. at the top, and 6 ft. 6 in. high. It is closely timbered the whole way, and steel rails are laid the whole length to remove the *débris* from the face. A drain in the centre, under the sleepers, is made to carry away the water. The object of this drive was to drain off the surface-water and to locate the main country-rock formation, which, so far, has for the most part been of a broken and disturbed character. A fair channel of country was penetrated in the first 400 ft., after which the ground again became very much broken, and the present face is penetrating a formation resembling the old bed of a river, from the presence of gravel and boulders.