

Nearer the foot of the range there are four claims—namely, Reed and party's (known as the Sugar-pot Claim), the Mountain Race, Ewing's, and Symes and Morgan's. These claims have a rich run of the quartz grit wash-drift going through them. This seems to be comparatively a narrow run of ground following the foot of the range, and at the time it was deposited the range must have been steeper than at present, as it is now partly underlying the foot of the range. This means that slips have come from time to time as the quartz-drift was being deposited, and kept extending over the deposit further every time a slip occurred. This makes the drift difficult to take out of the underlying position in which it is now found, as in doing so a large quantity of *débris* from these old slips has to be removed at the same time. The depth of this character of wash-drift, which is of a much older formation than the gravel-drifts further out on the flat, has never yet been ascertained, neither here nor at any place where it has been worked in the district. A shaft was sunk near the boundary of the Mountain Race Company's ground and the Sugar-pot Claim to a depth of 240ft., showing no indication of being near the bottom, containing about the same quantity of gold all through; but the question of being able to work to this depth is a problem not yet solved, but there is no doubt that it will yet be worked by several hydraulic elevators, one below the other, to a considerable depth. The wash in the shaft does not appear to be rich enough to drive out, but will give good returns for working by hydraulic elevators and sluicing. How far this run of ground may traverse the foot of the range has not been ascertained, and, indeed, it is of very little use for any one to go prospecting for sluicing-ground in this locality, as all the available water that can be brought on to the ground is taken up and utilised.

Mountain Race Company.—This company has done more work here than any of the others, having been longer at it. They have washed off the top of the quartz-drift run, which was very rich, and have also worked a considerable portion of the gravel wash-drift ground, which pays well for working; but the shortness of water has greatly affected their workings for the last year, they having only about five weeks' water during the year.

Ewing's Claim.—This claim adjoins the Mountain Race ground, and has the quartz-drift wash running through it. The claim comprises 10 acres of very rich ground, and adjoining this, further out into the flat, Mr. Ewing holds a special claim of 60 acres. The 10 acres now being worked was held by Mr. Foggart for many years as a mining lease, but owing to all the available water being taken up, he never did any work on it. About three years ago he sold it to Mr. Ewing for £500, and since then who has expended about £10,000 in bringing in a water-race from Thomson's Creek, and placing a hydraulic plant on the ground. The termination of the head-race is 500ft. above the level of their workings, and from that point the water is laid down in steel pipes 18in. in diameter, having double-rivelled longitudinal seams. The plant was all completed ready for a start last year, but owing to the very dry season they have only had a small supply of water for about eleven weeks, during which period 320oz. gold was obtained, which was sufficient to cover all expenses in working and give 10 per cent. on the capital invested. Sluicing operations were commenced in October last. During the eleven weeks water was available about 76,800 cubic yards of material was sent away, and the average quantity of water used was eight sluice-heads. This is equal to about 1,164 cubic yards per day, or, if the water was used continuously, it shows that one sluice-head of water shifted 6 cubic yards per hour. It may be said that only sufficient work has been done to test the ground, which shows that it is highly payable, although only containing 2gr. of gold per cubic yard. The great head or pressure of water on the breaking-down nozzle is sufficient to disintegrate any clay or mullock in the wash to a fine pulp, which is a great advantage, for any lumps of mullock and clay passing down the sluice or tail-race are certain to carry away gold with them. The nozzles or directors first obtained were not strong enough to stand the pressure, but every other part of the plant answered admirably. It may be mentioned that in addition to the ordinary sluice the material passes over a wide set of tables somewhat similar in principle to Guthrie's patent gold-saving tables, which are used by the Fair Maid and Gladstone Company, at Addison's Flat, in the Westport district, which recover a large percentage of fine gold that would not otherwise be saved.

Reid and Party.—This party has very rich ground, but they have only been able to get water to work with for six weeks during the season, nevertheless during this period they obtained 100oz. of gold.

Symes and Morgan.—This party are working further to the southward than any of the others. They have opened out some new ground, which is proving highly auriferous. This also shows that the same run of gold-bearing wash is extending more in the direction of Clyde, and possibly some good claims may yet be opened out still further southward. If there is a large extent of this character of ground it would pay to bring in water for a long distance to work it.

ST. BATHAN'S.

The scarcity of water in this locality has greatly affected the yield of gold from the claims. Some of the companies have not washed up for the season. Amongst these are the Scandanavian and M. and E. Companies, which are working at Muddy Creek on similar character of ground to that found at St. Bathans and the quartz-drift at Tinker's. During last year Mr. Ewing has placed a new hydraulic plant on his claim at Kildare Hill, near St. Bathans Township. A new main line of 18in. steel pipes has been laid down, and he is elevating the material about 46ft. In connection with this elevator one of Robertson's patent atmospheric nozzles is used. At one time some people thought these nozzles would be of immense advantage in lifting the water and material, but Mr. Ewing has not found them come up to expectations. There is no doubt they are an improvement if the intake of the elevating-pipe gets submerged, but so long as it is working free they are of no direct advantage. Operations with the elevator commenced in January last, and up to May the yield of gold in that time was 1,500oz., which shows the ground to be extremely rich.

There is very little doing in the other claims at St. Bathans. Most of the top material has been sluiced off the run of ground where most of the gold is got. The sludge-channel has to be