The Matakinui Company's claim adjoins the Undaunted Company's ground. They have gone to considerable expense and brought water in from Drybread Creek, and have a very good supply of water; but their tail-race will not admit of their sluicing away all their tailings to the bottom. At the time of my visit they were running off the ground to a depth of about 30ft., and elevating for about 12ft. with a hydraulic elevator. The ground has so far not been nearly so good as that in the Mountain Race and Undaunted Company's claims, neither is their style of working nearly so good. They are using a large quantity of small pipes, which absorb a great deal of the head of water in friction, and there is in some portions of their ground a quantity of small stones and boulders which have to be picked out and stacked by manual labour. The tail-race has to be constructed on so flat a gradient that nothing but the fine gravel and sand can be sent away. An appliance similar to that used by the Fairmaid and Gladstone Company at Addison's Flat would answer for getting away the stones in this description of ground, or they could be picked up from a well with open bar scoops fixed on an elevating-belt, and stacked in the worked-out ground; but this company has already gone to great expense, and is obliged to resort to many makeshifts until they get sufficient gold from the ground to pay for improved appliances.

Reid and party are working in the quartz drift-wash, the whole of which is carried away in the tail-race and deposited on the tailings site that was purchased two years ago from Messrs. Laidlaw and Crawford. Their claim is known by the name of the Sugar Pot, and the average annual returns are about from 400oz. to 500oz. of gold.

John Ewing's claim adjoins the south-eastern boundary of the Mountain Race Company's claim. He has constructed a water-race from Thomson's Creek, which is about two miles and a half in length. This brings the water on to a spur at an elevation of about 450ft. above the ground he is going to work. As all the water-rights in this creek had been granted previous to his purchasing the ground, he had to pay £1,400 for the right of water from the creek which had been held by the Rise and Shine Company, who took the water on to the opposite side of the range; but this company's right to lift water out of the creek was at a much higher elevation than he required it. He therefore constructed a race at a much lower level, and lifts the quantity of water he is entitled to under the right he purchased; but, as there was some dispute as to his being entitled to shift the head of the race from the place where it was originally granted, and as the right he purchased was the second from this source, an arrangement was come to to gauge the quantity of water in the creek, which was done last summer, and the Warden is to determine what proportion of this he is entitled to.

He ordered 50 tons of steel plates from England, and has had the most of this manufactured into pipes by Messrs. Sparrow and Co., ironfounders, Dunedin. His main line of pipes from the end of the race is 18in. in diameter, with longitudinal seams double-riveted; and the branch pipes are 15in. in diameter, tapering down to 11in. There are also about 40 chains of pipes 13in. in diameter. The whole of these pipes are riveted with flat-headed rivets on the inside, and snap-heads outside. It has been the custom in manufacturing some of the pipes used for hydraulic plants, such as those manufactured by Mr. J. R. Perry for the Hercules Sluicing Company, near Roxburgh, to merely use rod-iron for rivets, and to have snap-heads both inside and outside; but as some of this company's pipes have failed at the riveted joints, Mr. Ewing had his constructed with manufactured rivets, and they certainly are the strongest riveted pipes in any large hydraulic plant in the colony at the present time. However, this was essential, as the plates are thin for the pressure they will have to bear—namely, about 195lb. to the square inch at the lower end—and when he commences to work hydraulic elevators some of them will be subjected to a greater pressure than this. Assuming that the 15in. pipes are made of No. 14 B.W.G. steel, and have to stand a pressure of 195lb. to the square inch, their bursting-pressure would be about 465lb. This would give them a factor of safety of 2·43; but if any of them are only No. 16 gauge their bursting-pressure would be about 364lb., which would give them a factor of safety of only about 1·86—that is, allowing the minimum tenacity of the steel to be 60,000lb. per square inch; but if the tenacity of the steel plates used was 72,000lb. per square inch, which is given by Molesworth for the lowest class of steel plates, No. 14 B.W.G. pipes of this diameter would have a factor of 2·8 of safety, and No. 16 gauge 2·3.

There is a new description of gold-saving box, constructed on a similar principle to that of Gutherie's tables, at the Fairmaid and Gladstone Company's claim, at Addison's Flat. It is 24ft. in width and 16ft. in length. It is divided into eight sections, each 3ft. in width, and the water and material is regulated on each section from a cross hopper-box at the head. A stream of clear water is also introduced on to this table. It has three separate vertical falls in the length: the upper one is 16in., and the two lower ones each 8in., having a well and splashboard at each drop or fall. This is a step in the right direction, as the gold in this ground is very fine, and unless the material passes over a wide surface a large percentage of it will be lost. Mr. Ewing expected the whole of the plant to be complete and ready for work in about fourteen days after my visit to this field. Before he is ready to commence sluicing operations the cost of this claim, with all the necessary hydraulic plant and appliances, will be about £9,000. Indeed, it would be difficult to find another man in the colony to undertake such a work single-handed; but it is only by carrying on mining with the most approved appliances that the ventures can be brought to a successful issue.

Symes and Morgan's claims adjoin Mr. Ewing's. They are also working in the quartz drift-wash, which gives them very good returns for their labour; but the small quantity of water they use makes very little impression on the high face of material they are sluicing away. One goes back here year after year and sees very little difference in the face where they are working.

There are altogether about fifty men employed in claims at Tinker's, and if the value of the gold obtained here were to be equally divided amongst them, they would have higher wages for the number employed than on any other goldfield in the colony.