

work" has been of a non-remunerative character, a large amount of barren ground having to be sluiced off in order to expose a deeper area of payable wash, the thickness of which is estimated at 100 ft., measured at right angles to the inclination of the deposit. Mr. Eagle states that the gold is not concentrated in his claim as in some of the neighbouring workings, but is more generally distributed through the entire thickness of the wash. Water is conveyed from Mount St. Bathans in a race seven miles long, and is high enough to give a pressure due to a vertical height of 400 ft. The work is carried on with about half the available pressure. The claim-holders have a right to four heads of water. The pipe-line commences with a diameter of 22 in. and diminishes to 7 in. diameter. Two men employed.

*St. Bathans's.*—(13/1/99): The United M. and E. Company have two claims. That adjoining Mr. Ewing's Kildare Hill Claim comprises an area of about 24 acres. The auriferous wash is overlaid by a considerable thickness of barren ground. One nozzle and one elevator are ordinarily at work; the latter uses some five heads of water, at a pressure due to a vertical height of 350 ft. The sluicing-nozzle passes four heads from a height of 180 ft. Depth of elevator, 55 ft. Four men are employed in the claim, and one man on the races. In common with the general practice of the St. Bathans's district, the sluiced material is elevated into a paved tail-race, which is washed up twice a year. I cannot but think that this method is responsible for the loss of a certain amount of fine gold, and that if sluice-boxes, fitted with riffles and matting (and possibly side-tables in addition) were provided, the outlay would be repaid in a very short time.

*Scandinavian Claim, St. Bathans's* (M. Nicholson, manager).—(22/9/98): When at this claim I did not see the manager, and only one man was at work directing the sluicing-nozzle and attending to elevator. The face of wash here is very deep, and the work appears to be carried on with due regard to safety.

Memorandum from Mr. Nicholson, dated 10/10/98: "Face of wash now being worked, 120 ft. deep; water-pressure due to a head of 350 ft. Water-race is twenty-five miles long, and has first rights to twenty-five Government heads of water from the Manuherikia River; a good portion of the water is sold to holders of other claims. Ten men ordinarily employed by the company, which is a registered one. 520 oz. of gold got last season. The company only get the surplus water for their own claim after other claims (whose owners purchase the water) are supplied."

*Gallacher and Party, St. Bathans.*—(22/9/98): This is situate between the township and the Scandinavian Claim, and has been worked for many years with a fair amount of success. The area is 3 acres, and two men are employed. There is a small amount of water at a low head, with which the sluicing is ordinarily done, but a two-head supply, with a pressure due to a head of 300 ft., is bought from the Scandinavian Company, and used principally for breaking down the heaviest part of the ground. A small elevator is used at this claim.

*Ophir.*—(20/9/98): The Ophir Deep Lead Gold-mining Company's claim has not turned out a success; the company has gone into liquidation, and the mine is closed. Nothing further has been done at the quartz-reef at Ophir.

*Arrow Flat, Arrowtown.*—(15/10/98): A water-race is now in course of construction to bring in water some 500 ft. above Arrow Flat, for the purpose of working the beaches by hydraulic elevating.

*Arrow Falls Gold-mines, near Arrowtown.*—(15/10/98): Work is temporarily suspended, pending the erection of a steam-crane for moving the large stones. As the crane has arrived at Kingston, work will be resumed in a week or two.

*Arthur's Point Sluicing Company, Queenstown.*—(19/10/98): This company has a claim (licensed holding) on Section 109, Block XIX., Shotover District (area, 16 acres and 23 perches), close to the Big Beach, formerly worked by the Sew Hoy dredges. Up to date the work on the claim has been mostly of a prospecting character, about £50 worth of very fine gold having been obtained. This is not considered satisfactory, and unless the yield improves it is in every way likely that operations will soon cease. About £700 have been spent in bringing in water and putting down an elevating plant. Six heads of water are picked up from various small creeks from the Coronet Peak Range, the race being nine miles long. Seven men are employed when water is available. (9/3/99): This claim has been recently let on tribute.

*Londonderry Claim, Skipper's Point (Skipper's Sluicing Company, Limited),* (A. J. C. Brown, secretary, Dunedin; James Scott, manager).—(18/10/98): The ground held comprises an area of 63 acres. The face of wash is very thick, averaging about 170 ft., and is of a light sandy character, containing a little gold right through, the best parts of the wash being in stony seams. The stuff is sluiced off down to a false bottom, which is variable, consisting in some places of gravel and in others of white sand and tough clay. The bed-rock is mica-schist, but no gold is got below the false bottom. As there is any amount of fall for tailings no elevators are required. Two nozzles are employed. Water rights are held for twenty Government heads from Skipper's Creek, and the water is conveyed by a race five miles in length, and by 33 in. and 22 in. diameter iron pipes about two miles long. The water-race has a fall of 8 ft. to a mile. At the claim iron sluice-boxes are set in a tail-race having a fall of 1 in 10, and tram-rails, fitted both crosswise and longitudinally, serve for riffles. The gold is of a character which admits of its being easily saved. Owing to the amount of frost and snow at this altitude, work is only carried on for about eight months in the year. Eight to twelve men are ordinarily employed. A tailrace tunnel 310 ft. long and 6 ft. by 5 ft. in section, which will admit of the claim being worked to better advantage, has been recently completed at a cost of about £1,000.

*Davis Brothers' Claim, Maori Point.*—(19/10/98): This claim is very similar to the Londonderry Claim. At my visit the men were not at work at the face, but I judged them to be engaged on the water-race.

*Upper Shotover.*—(8/3/99): Visited Messrs. Smith and Son's Claim, principally to examine the method adopted and designed by them for working river beaches by a hydraulic jet-pump. This