

1-mile 40-chain peg as much as 2 feet above the wash-dirt. It is of course evident that where the bottom of the channel is not lower than the auriferous wash-dirt, it cannot be used for working the ground in its immediate vicinity: hence the anxiety caused by the discovery of a good deposit of gold at and below the level of the bottom of the channel.

4. To make this report intelligible, it is perhaps necessary for me to inform you that the whole length of the channel, as surveyed, is 10 miles, and that the miles are numbered from the upper or Naseby end downwards. The lower 8 miles have been made and finished with paving. A contract is now in progress to bring the work on to within 1 mile of its upper termination, or to what is known as "the 1-mile peg." It is understood that the first or highest mile of the channel as originally surveyed will not be made at all.

5. Plans, which I have had an opportunity of seeing in the hands of the contractors, show that the depth at the 1-mile peg was at one time intended to be only 6 feet 9 inches; afterwards, in consequence of public agitations, the levels were so altered as to make the depth at the same point 19 feet 3 inches. When the lower part of the channel was in progress, Mr. Green and Mr. Arthur, the engineer, visited the works, and, as I am informed, made an arrangement with the contractors to bring the work up at 4 feet less depth.

In the present contract there is a still further sacrifice of depth, the plan showing the depth at the 1-mile peg to be only 10 feet instead of 19 feet 3 inches.

6. In the *Mount Ida Chronicle* of to-day, under the heading "Sludge Channel Levels," it is stated that there is an error in the plan, and that the depth at the 1-mile peg should be put down as 12 feet instead of 10 feet, thus involving a sacrifice of 7 feet of possible depth, instead of 9 feet, as was apparently the case. Of course the other 3 feet mentioned in the *Chronicle* make no real difference in the actual depth of the channel, being merely the result of its being deviated from the lowest run of the gully into rising ground at the one side, thus involving an extra 3 feet of cutting, without affecting the real levels of the bottom. I have myself seen the contractor, who admits that he will have to cut to a depth of 15 feet at the 1-mile peg as now placed; but showed me the lower lying ground from which it had been shifted.

7. The portion of the channel now in progress is being brought up at an incline of 1 in 59·2, while the portion immediately below it has an incline of only 1 in 62·11; and it is argued that, if the present portion had been continued at the 1 in 62·11 incline, it would have worked as well, and the needful depth have been attained, and this without any disturbance of the 8 miles of constructed channel below.

8. With regard to the alleged error in the plan, and the alterations made in the levels, I do not of course advance any opinion, as I have had no communication with the engineers on the subject, and have no certain information.

9. But, as a mere layman, I venture to state that I do not think there was any necessity to make the grade so much steeper as the channel comes up. The ordinary experience of miners is that if a tail-race starts with a quick fall and becomes flatter as it goes farther, it is very liable to choke at the lower end.

10. You will see by the *Chronicle* that the Provincial Engineer has declined to adopt the suggestion of the public meeting, to increase the depth of the portion of channel now being made, at the expense of sacrificing a portion of its length. It is to be presumed that this decision has not been come to without consideration and sufficient data, as the District Engineer (Mr. Browne) was here last week when the excitement was at its height, and had his attention specially drawn to the fact that the bottom of the channel seemed to be merely skinning the golden drift, instead of being made deep enough to work it by sluicing. Mr. Browne has the reputation of having a practical knowledge of mining, and I cannot conceive that he would recommend perseverance in the making of the channel at a level that must lock up a great quantity of good sluicing ground, unless he had some very sufficient engineering reason for doing so.

11. The statement in the *Mount Ida Chronicle* of to-day, that "the levels run on an average 2 feet 6 inches in the non-auriferous bottom," is so entirely at variance with the observations of myself as well as Mr. Newman and others, that it is only explicable upon the assumption that the levels as run will be considerably deeper than the excavation at present made. Upon this subject, however, we must have definite knowledge within very few days, as the contractors propose to commence laying the stone pavement next week.

12. A very large extent of ground is being held in claims awaiting the opening of the channel. No doubt much of this ground can be worked into the channel at the present depth, although the fact remains that the deep ground can only be got at by bringing up all the available fall. If, therefore, the Government is not prepared to lay out another £1,000 on the present contract to attain the additional depth, it would be best, in my opinion, to allow the contractors to finish the work as it is.

I have, &c.,

H. W. ROBINSON,
Warden.

CORRIGENDA.

Report upon Marlborough Gold Fields, p. 22, first and second lines, *should read* "The population . . . being now increased to about fifty men."

Return No. 18, p. 43, Mining Leases, Lyell.—*For* "12—133 2 36—268 0 0" *read* "18—134 2 36—298 0 0," six having been erroneously returned under the Gold Mining Districts Act.

Return No. 19, p. 43, Agricultural Leases, Ahaura.—*For* "99—5,495 2 11—631 18 6" *read* "124—6,407 2 11—738 6 6," No-Town Sub-district having been omitted.

Return No. 20, p. 44, Licenses under Gold Mining Districts Act.—*Delete* the return from Nelson.