

89. Supposing pound for pound to be given by the public, do you think the colony, in giving another pound for pound, was acting wisely?—I should think it would be money well spent.

90. *Mr. Allen.*] Do you mean to establish small plants?—I did not understand Mr. Larnach's question to be put in that point of view.

91. *Mr. Larnach.*] The miners established plants; do you think it would be too much to assist them by giving them sets of ores or other aid?—No.

92. *The Chairman.*] Each set of ores costs £12; there is, however, apparatus to be found, which costs money. Suppose the colony pays half the sum requisite, would it benefit to the extent of that half? I ask you, then, whether it would be a benefit to close the schools so as to relieve the colony from the expenditure?—That is a question of policy, which I am not in a position to answer.

93. *Mr. Larnach.*] Is it within your knowledge that, apart from the instruction given to the miners in the several localities where these schools have been established, there is a number of youths who are attending the State schools and receive instruction several times a week with great benefit?—Yes; in every school that is opened you will get a number of pupils of this sort.

94. And they receive a benefit not only from the teaching but from the experiments and demonstration which the appliances afford?—Yes.

95. *Mr. Allen.*] Do you think that a few days of teaching of chemistry is of any use whatever?—It has a value in this way: it opens the eyes of the pupil to facts which he had never dreamt of before; it makes him reflect on a great variety of surrounding circumstances; it induces him to inquire further; it leads him to read up the subject, which he would never have done but for the opportunity afforded of attending similar lectures. It does a deal of good in this way.

96. Is not a little learning a dangerous thing, especially with regard to chemistry?—A little learning is a dangerous thing in regard to anything.

97. *Mr. Larnach.*] Does this instruction go on throughout the year?—In some localities it does; at the Thames, for instance, the school of mines is open every day.

98. *Mr. Cadman.*] Could you tell us the average attendance of scholars for the year?—No, I cannot tell you the average for the year.

99. *Mr. Larnach.*] Now, bearing in mind the small amount of money expended altogether on these schools, the benefits of which extend all over the colony, is it your opinion that it would be prudent to discontinue giving assistance to them?—I think it would be a bad thing to stop this assistance altogether.

100. *Mr. Valentine.*] In your opinion would it be desirable that any present assistance should be taken away from these schools?—I should not like to go into that question. That is for the Government to determine if they should think it desirable.

101. Then, as I understand, you think it desirable that some of this expenditure should be cut down?—It might be cut down, that is to say if on these goldfields they have people among themselves able and competent to give the requisite instruction and to take charge of the schools that are in existence; but it would be desirable to have a few central schools where you might get anything tested that would be referred to them.

102. But, apart from that, is it your opinion that some portion of this expenditure should be cut down?—I think if the miners had the competent persons I refer to among themselves you might attain the same object.

103. But without them?—Not altogether.

104. But attaining the object in view on the establishment of these schools is a matter of time?—Yes.

105. *Mr. Allen.*] But do you not think, if we want to train men who shall be of service to the colony as mining experts, that the schools of mines should be attached to some other teaching body like a University, where those attending could get the requisite training, not only in chemistry but in mechanics, electricity, metallurgy, mineralogy, &c.?—I do; but I do not think that in any of the principal towns of New Zealand, such as Wellington, Auckland, Christchurch, or Dunedin, which are not situated near or in mining localities, you would get the miners to attend. As a matter of fact they are not in a position to attend schools at such a distance. That the schools should be associated with some teaching body I agree, but they should be situate in some mining centre.

106. But the teaching body at Ballarat found they were wrong, and they are now trying to associate themselves with the Melbourne University.

107. *The Chairman.*] Now as to the second paragraph or clause in the order of reference?—I should be glad to answer any questions put to me on that, for it opens up subjects which one might take days to dilate upon and explain.

*Mr. Valentine.*] I think it would be better to have the witness's opinion before beginning to ask him any questions. He can give his opinion shortly.

108. *The Chairman.*] I think so. Will you be good enough to give the Committee your opinion upon this second clause in the order of reference?—That is, if I understand you rightly, my opinion with regard to getting more information than we have at present in reference to the treatment of ores, and not only the treatment of ore, but likewise the various processes of gold-extraction.

109. I would ask you to confine yourself just at present to two points: first, to hydraulic workings; second, to quartz-mining and the treatment of ores: you can take either of these in the order you please, but to finish one branch of the subject first, so as to enable the Committee to ask you questions upon it as a whole: you can then go to the other?—With regard to auriferous drifts, of which this colony affords a great scope of country, there is no doubt, in my mind, that we are far behind America in the processes of working them.

110. *Mr. Allen.*] Have you been to America?—I have never been in America; but I get all the