

"Hitherto in this colony no means of scientific education in this most important occupation has been provided. The result has been an enormous waste of capital, time, and labour. Indeed, it may be fairly stated that the present depression in the mining market, and the distrust of mining property as an investment, may in great part be traced to the numerous failures of enterprises either ignorantly entered upon or unscientifically conducted. The scientific education of those engaged in mining pursuits would, it is believed, not merely render gold-mining a safe and generally more productive speculation, but would bring into profitable prominence and activity many branches of mining now wholly neglected, or distrustfully, and consequently unsuccessfully, pursued."

Here, then, is an exposition which completely exhausts the subject, and puts the question beyond the reach of controversy. For institutions, political, social, and educational, there is, as for mankind, an infancy; and you may be congratulated on the rapidity with which this has emerged from its swaddling-clothes. The sum of £600, wanted to enable you to commence operations, has been subscribed. The Government has so far recognised your movement as to grant you a lease, at a nominal rent, of the house in which we are met, formerly the building in which were held the sittings of the Supreme Court. It has been repaired and adapted to the requirements, and you are now ready to set to work.

If there be amongst us any indifferent to the movement on account of its novelty, to them may be said, with all deference for striking on so low a chord—You cannot afford to be listless—your self-interest demonstrates the imperative necessity for action. Your calling, whatever it may be, is so interwoven with, so dependent on, the mining for gold, which has enlisted so large a part of the population of the district, that the question is brought home to you in a serious light. You cannot decline to move on with the times.

Only sixteen years ago, when the valleys around this spot were crowded with upwards of 40,000 stalwart diggers, working amidst the alluvial drifts with an energy almost incredible, an admonition was given, which sounded prophetic, and was consequently disregarded; yet the verification of this has come upon us in our generation with a startling and unpleasant truthfulness.

Many a one of you, when consulting the author of *Siluria*, for guidance in your operations, to which his profound and philosophic

investigations have imparted such pre-eminent value, may have paid but scant attention to the conclusion of the sixteenth chapter. Let me read it to you. Speaking of these alluvial workings, he says:—
 "Now, as every heap of these broken auriferous materials in foreign lands has as well defined a base as each gravel-pit of our own country, it is quite certain that hollows so occupied, whether in California or Australia, must be dug out and exhausted in a greater or less period. In fact, all similar deposits in the old or new world have had their gold abstracted from heaps whose areas have been traced, and whose bottoms were reached. Not proceeding beyond the evidences registered in the stone-book of nature, it may be therefore affirmed that the period of such exhaustion in each country (for the deposits are much shallower in some tracts than in others) will, in great measure, depend on the amount of population and the activity of the workmen employed in each locality. Anglo-Saxon energy, for example, as applied in California and Australia, may in a few years accomplish results which could only have been attained in centuries by a scanty and lazy indigenous population, and *thus the present large flow of gold into Europe from such tracts will, in my opinion, begin to diminish within a comparatively short period.*"

These italics are his own. You may answer whether undue emphasis be thus given to the passage. What is the obvious moral to be drawn from this pregnant sentence? Does it not show that what has occurred on this spot within this short time, under our own eyes, proves amply that, in this quarter at least, the era of the cradle and the tin dish has already passed away into an antiquity as dim and distant as the age of Tubal Cain; that the present epoch of deep leads to reach the banks of what were at some remote geological period superficial streams, or to follow out, what may be of still more or less ancient formation, gold-bearing veins of quartz, demand agencies wholly different from those which hitherto sufficed; that while you will still rejoice to possess the help of the miner's brown arm, the time has come when the calculating and inventive brain and the cultivated intelligence must play their part; and that you now must enlist higher forms of sagacity, employ auxiliary forces, and that these forces must be directed to suit the altered circumstances which have arisen.

But our old and valued conservative friends, who conceive that new-fangled ways and contrivances are all weariness and vexation