

are made, so thin as to be quite transparent. These sections are placed under glasses of highly magnifying power, and thus are not only the essential constituents of the rock, but others which are accessory. The processes of decomposition and disintegration are observed, and recognised as originating the accessory material already mentioned, and which by analysis is found to consist of metallic ores, and so are seen the steps by which metals are formed from the rocks in which they originally appear. Thus it is seen that our scientific enquirers have beaten their predecessors, the astrologers and alchemists, in at least one respect. Their efforts at the discovery of the elixir of life have been rather a failure so far, but they have made some progress in the search for the philosopher's stone. Who knows but that some day we may know how to decompose certain quartz rocks for ourselves, and so, by further chemical operations, to turn them into gold. Alas, then, for the value of the "precious metals" now so-called. There will be no difficulty whatever in keeping them in the country. Much good may they do there.

Time would fail to tell all the advantages which we enjoy from the unremitting labors of scientific men, and in this meeting it is not necessary to do more than refer to them. Every one here has personal and daily experience of the vast activity which those laborers have added to human life. Nay, will not all be ready to assert the importance of the general good of the continuance of those labors? Knowledge has done so much for us, has carried us on so far, and has caused to arise in us such expectations that if it should fail to advance now it would be felt to be more disastrous than if it had never come to our help at all. Having been told of steam and electricity and their various uses, our desire "for more" is greater than ever. Having given men such power, know-

ledge must further look to it that there is a way open for the use of that power. It cannot be said to have, so far, made man's future look brighter than before, and I do not know that it has, on the whole, increased his happiness as much as is claimed for it, for there seems as great a disproportion as ever between man's desires and the means of giving them satisfaction, and the vanity of his desires is made manifest as often as it was wont to be; but it has made itself necessary, in as far as it has increased his power for good and evil. The men who have most knowledge have most power for both those ends, and if that power is left in the possession of a few they will certainly abuse it, to the grief of the rest of us, just as the classes of men who have had exclusive possession of knowledge have done in all ages. Knowledge leads and men must follow, but it is of consequence to the usefulness of the leader, and to the safety of those led, that the relations of the parties should be reasonably intimate, and that they should be in clear sight of each other at least.

Thus far in commendation of the purpose of this association, and perhaps those who listen may have come to the conclusion that, considering all which has really been said, the time occupied has been sufficiently long. I shall make only one more remark. It relates to another important benefit which comes from seeking understanding. I mean the discipline and culture which we get by the way. Knowledge puffeth up, but the obstacles which are found in the way of its attainment in any perfection may humble not a few of us, and convince us of the danger of basing too much on the uncertain foundation of what we know. It is long since it has been said, we know in part. Little else can be said now. That which is perfect has not appeared above our horizon as yet.

