

practical outcome of all this? What benefit, direct or indirect, do we, as a people, expect to derive from such an expenditure of time or money on the part of the individual or of the nation? Now, while to a body of strictly scientific workers the consideration of such a question would be quite unnecessary, it is possible that there may be, even here, some who have thought over this question from this practical standpoint. And, first of all, I suppose it may be safely asserted that every scientific subject has a twofold aspect, viz.: first, its study from a purely scientific point of view and in the interests of science properly so called; and, secondly, its economic importance. Thus, if you were to ask the entomologist what practical good he expects to derive from the study or serious contemplation of bugs or insects, he would readily say that many of these insects are injurious to the growth or development of certain valuable fruits or grains, and the study of their habits, their methods of existence, and the means by which their destruction can best be effected, forms an exceedingly important branch of study, in order that their encroachments may be most successfully resisted or their extermination most readily effected. So, also, with the ornithologist, the study of the habits of certain birds, injurious or otherwise to vegetation, as in the case of the English Sparrow or other species, is considered so important that special investigations in this direction have been undertaken by our neighbors across the line. As regards the problems of geological science, the economic aspect of the question is of special value in many ways; since upon the character of the rocks beneath the surface depends very largely the agricultural value of soils which have been produced by their disintegration or decay, and the determination of areas suitable for successful settlement and their fitness for the growth of certain important classes of food products. The determination of mineral-bearing belts, and the probabilities of the profitable expenditure of capital in the search for economic minerals, also in great measure depend upon the correct determination of geological horizons, and constitute one of the most important of the practical problems presented by the study of the science of geology. With many of those who regard scientists, as a class, simply as cranks of a higher growth and as persons who have no clear conception of the objects for which they are working, it is very evident that the consideration of these