

insist on it here ; because, while every person knows the value of economical geology, comparatively few are aware of the intimate relation which palæontology bears even to this more utilitarian department. Fossils are in truth the readiest means for identifying rock formations, and are indispensable to any satisfactory comparison of Canadian geology with that of other countries. Does some speculator insist that the Gaspé or the Trenton limestone is the equivalent of the English mountain limestones, and the overlying sandstones and shales coal-measures, a comparison of the fossils at once convicts him of his error. Is a vein of lead-ore discovered in a Canadian formation, and is it important to ascertain if the bed containing it corresponds geologically with those of the lead regions of Missouri or Wisconsin, it may be quite impossible for the geological surveyor to trace ~~his~~ its line of outcrop into those regions, but a few fossil shells may settle the point. Does a foreign geologist wish to compare the geology of Canada with that of his own country, he can have confidence in the identification of formations only if their fossils have been carefully and accurately examined. Independently of all this, there is the duty which lies on Canada as a civilized country to contribute her share to the elucidation of the records of creation, in so far as these have been inscribed on her own rocks. She is not asked to pay for explorations to discover a north-west passage or explore the Antarctic seas ; but it will be a lasting disgrace if she cannot work out the natural history and physical geography of her own territory. Nor must the knowledge of fossils be confined to the officers of the survey and die with them. It must be published and illustrated by good figures, so that, once done, it may remain for future reference, and thus become a permanent addition to the scientific literature of the country. Times may change, and editorials and acts of Parliament may become waste paper ; but rocks and fossils are permanent things, and work once well done in reference to them is sure to retain its value. Additions may be made to it, but the substratum will remain good. Nay, it will increase in value ; for as a native Canadian literature arises, popular writers will take hold of it ; and here, as in England, we shall have pleasant and instructive popular books growing out of what are now dry descriptions and lists of fossils. It may be said that the palæontology of the country would in time be explored and published by amateurs ; but this would be an affair of centuries ; and in the mean time even the industrial