

mineral character of our Trenton group of rocks at Ottawa is sufficiently constant to make it a good test almost anywhere within a radius of 200 miles, and where the least doubt arises, superposition would be another ready means; but the Trenton group of Missouri, for instance, is of a beautiful creamy-buff dolomite, very unlike our ugly sad-coloured limestone, and here we have to fall back on our fossils for light as to the age of the rock.

As a proof of the great value of fossils as evidence, I quote the evidence of Dr. Hall, New York State Geologist, given in 1854, before a select committee of the House of Commons of Canada, as follows:—  
 “One of the great practical advantages resulting in New York I conceive to have been the proof that no valuable or workable coal exists within the State. This fact, although of a negative character, has for ever set at rest all explorations for coal, while it has been ascertained that during fifty years previous to the commencement of the survey not less than one million of dollars had been expended in abortive search for fossil-fuel, where a well-informed geologist would have at once pronounced the undertaking useless and certain to prove a failure.”  
 Through a study of the fossils it was established that in New York “both salt and gypsum are products of the \* \* \* Silurian Period, while previously it had been believed they belonged to the New Red \* \* and consequently that coal would be found in these rocks as in Europe \* \* \* The evidence from fossil character soon proved the futility of such an expectation. Thus, in this instance, *mineral evidence* set the public wrong and *fossil evidence* corrected the error. Again the occurrence of the rock known as the Oneida Conglomerate was, from its mechanical structure, believed to be identical with the Millstone Grit of England, which underlies the coal, and examinations for coal were \* \* to some extent made. From the fossils in the rocks above and below it has been proved to belong to the older Silurian beds. Thus, in this case also, mineral evidence misled the public, and fossil evidence corrected the error.” \* \* \* \*

An instance in which a knowledge of the fossil remains of a formation was of still greater importance than a knowledge of its mineral character is the lead-bearing formation of the States of Wisconsin, Illinois and Iowa. For many years a serious misapprehen-