

gradually becoming less red and more chalky, everywhere overlying intermittent sheets of "sands and shingle-beds," one of which is particularly well seen at Leamington and Warwick, where it contains *Pectens* from the Crag, *Gryphæa* from the Lias, and chalk fossils and flints. The latter have also been found by Mr. Lucy in the neighbourhood of Mount Sorrel, associated with bits of the Coral Rag of Yorkshire. The gravels of Leicester, Market Harborough, and Lutterworth were long ago described by the Rev. W. D. Conybeare as affording "specimens of the organic remains of most of the Secondary Strata in England."

The Rev. O. Fisher, F.G.S., has paid much attention to the superficial covering usually described as "heading," or "drift," as well as to the contour of the surface, in districts composed of the softer strata, and has published his views in various papers in the *Journal of the Geological Society* and in the *Geological Magazine*. He thinks that the contour of the surface cannot be ascribed entirely to the action of rain and rivers, but that the changes in the ancient contour since produced by those changes can be easily distinguished. He finds the covering beds to consist of two members—a lower one, entirely destitute of organic remains, and generally unstratified, which has often been forcibly indented into the bed beneath it, sometimes exhibiting slickenside at the junction.

There is evidence of this lower member having been pushed or dragged over the surface, from higher to lower levels, in a plastic condition; on which account he has named it "The Trail."

The upper member of the covering beds consists of soil derived from the lower one, by weathering. It contains, here and there, the remains of the land-shells which lived in the locality at a period antecedent to cultivation. It is "The Warp" of Mr. Trimmer.

Neither of these accumulations occur on low flats, where the surface has been modified since the recent period. They both alike pass below high-water mark, and have been noticed beneath estuarine deposits.

Mr. Fisher is of opinion that land-ice has been instrumental in forming the contour of the surface, and that the trail is the remnant of its *moraine profonde*. And he has given reasons* for believing that the climate of those latitudes may have been sufficiently rigorous for that result about 100,000 years ago. He attributes the formation of the superficial covering of Warp to a period of much rainfall and severe winter-frosts, after the ice-sheet had disappeared.

The phenomena which so powerfully affected our hemisphere present themselves, in a much grander manner, in the New World.

* *Geological Magazine*, vol. iii., p. 483.