

the Annan in Scotland, brecciated like those of the Clent and Abberly Hills.

In the South Staffordshire district, and in the Clent and Bromsgrove Lickey Hills, the Permian marls and sandstones are capped by a remarkable brecciated conglomerate, consisting of pebbles and large blocks of stone, generally angular, imbedded in a marly paste, once soft clay. These conglomerate beds are about 400 feet thick. South of Colebrookdale, near Enville, and between that country and the Abberly and Malvern Hills, the same rocks occur, largely associated with coarse brecciated conglomerates, similar to those of the Clent Hills. The fragments have mostly travelled from a distance, apparently from the borders of Wales, and some of them are three feet in diameter. In some cases the smooth surfaces of the stones still retain striations, identical in character with those found in ordinary boulder-clay, or made by modern glaciers. Many of the stones are of greenstone and felstone, apparently derived from the Silurian traps of Montgomeryshire and North Wales, and at the south end of the South Staffordshire coal-field, near Northfield, I found in these strata large slabs of *Pentamerus* limestone, such as are only known in the Longmynd country, on the borders of the Cambrian rocks in Shropshire. So completely, indeed, does the whole deposit resemble the Post-pliocene boulder-clay, that I have no doubt that there was a glacial episode during part of the Permian epoch. In Thuringia the conglomerates of the Rothliegende have the same lithological character as the brecciated conglomerates of the Abberly Hills and Clent Hills, and they may be considered equivalents both in position and origin.

The chief part of the Permian fossils have been