

Although the Permian flora indicates a climate similar to that which prevailed during the Carboniferous period, it has been pointed out by Professor Ramsay, as long ago as 1855, that the Permian breccia of Shropshire, Worcestershire, &c., affords strong proofs of being the result of direct glacial action, and of the consequent existence at the period of glaciers and icebergs.

That such a state of things is not inconsistent with the prevalence of a moist, equable, and temperate climate, necessary for the preservation of a luxuriant flora like that of the period in question, is shown in New Zealand; where, with a climate and vegetation approximating to those of the Carboniferous period, there are also glaciers at the present day in the southern island.

Professor King has published a valuable memoir on the Permian fossils of England, in the Proceedings of the Palæontographical Society, in which the following Table is given (in descending order) of the Permian system of the North of England, as compared with that of Thuringia :—

NORTH OF ENGLAND.	THURINGIA.	MINERAL CHARACTER.
1. Crystalline, earthy, compact, and oolitic limestones	1. Stinkstein	1. Oolitic limestones.
2. Brecciated and pseudo-brecciated limestones	2. Rauchwacke	2. Conglomerates.
3. Fossiliferous limestone	3. Upper Zechstein, or Dolomit-Zechstein	3. Marlstones.
4. Compact limestone	4. Lower Zechstein.	4. Magnesian limestones.
5. Marl-slate	5. Mergel-Schiefer or Kupferschiefer.	5. Red and green grits with copper-ore.
6. Lower sandstones, and sands of various colours	6. Todteliende	6. White limestone with gypsum and white salt.

At the base of the system lies a band of *lower sandstone* (No. 6) of various colours, separating the Magnesian Limestone from the coal in Yorkshire and Durham; sometimes associated with red marl and gypsum, but with the same obscure relations in all these beds which usually attend the close of one series and the commencement of another; the imbedded plants being, in some cases, stated to be identical with those of the Carboniferous series. In Thuringia the *Rothliegende*, or *red-lyer*, a great deposit of red sandstone and conglomerate, associated with porphyry, basaltic trap, and amygdaloid, lies at the base of the system. Among the fossils of this age are the silicified trunks of Tree-ferns (*Psaronius*), the bark of which is sur-