temperature of Dublin, or of some place on the same parallel of latitude, must be supposed to be raised to 99° 5 F.; while the temperature of the thermal equator will exceed 124°—a temperature only a few degrees below that requisite to boil an egg! I reject, without scruple, a theory that requires such a result, which must be considered as a minimum; as it is probable that the ammonite required a finer climate than that of Britain for the full enjoyment of his existence.

The theory of central heat, also, appears to me to be open to the same objection, as a mode of explaining this remarkable geological fact; for it will simply add a constant to our present climates, leaving the differences to remain, as at present, to be accounted for by latitude and distribution of land and water. The astronomical theory of Herschel, also, which would account for former changes of climate by changes in the radiating power of the sun, would only increase the temperature at each latitude, leaving the differences as at present.

The only speculation with which I am acquainted, which is capable of solving this *opprobrium geologicorum*, is the hypothesis of a change in the axis of rotation of the earth, the admission of which, as a geological possibility, is mathematically demonstrable, and which has recently had some singular evidence in its favor advanced by geologists. In 1851, I brought forward, at the Geological Society of Dublin, a case of angular fragments of granite occurring in the carboniferous limestone of the County Dublin; and explained the phenomena by the supposition of the transporting power of ice. In 1855, Professor Ramsay laid before the Geological Society of London a full and detailed theory of glaciers and ice as agents concerned in the formation of a remarkable breccia, of Permian age, occurring in the central counties of England; and still more recently the same agent has been employed by the geological surveyors of