

and still retain in the existing seas the identical shape and character which they exhibited in the earliest formations. On the other hand, other brachiopoda have gone through in shorter periods a vast series of transformations, so that distinct specific, and even generic names have been given to the same varying form, according to the different aspects and characters it has put on in successive sets of strata.

In proportion as materials of comparison have accumulated, the necessity of uniting species, previously regarded as distinct, under one denomination has become more and more apparent. Mr. Davidson, accordingly, after studying not less than 260 reputed species from the British carboniferous rocks, has been obliged to reduce that number to 100, to which he has added 20 species either entirely new or new to the British strata; but he declares his conviction that, when our knowledge of these 120 brachiopoda is more complete, a further reduction of species will take place.

Speaking of one of these forms, which he calls *Spirifera trigonalis*, he says that it is so dissimilar to another extreme of the series, *S. crassa*, that in the first part of his memoir (published some ten years ago) he described them as distinct, and the idea of confounding them together must, he admits, appear absurd to those who have never seen the intermediate links, such as are presented by *S. bisulcata*, and at least four others with their varieties, most of them shells formerly recognised as distinct by the most eminent paleontologists, but respecting which these same authorities now agree with Mr. Davidson in uniting them into one species.*

The same species has sometimes continued to exist under slightly modified forms throughout the whole of the Lower and Upper Silurian as well as the entire Devonian and

* Monograph on British Brachiopoda, Paleontographical Society, p. 222.