

Carboniferous periods, as in the case of the shell generally known as *Leptaena depressa*, which we must now call, in obedience to the law of priority of nomenclature, *Anomites* (or *Strophomena*) *rhomboidalis* Wahlenberg. No less than fifteen commonly received species are demonstrated by Mr. Davidson, by the aid of a long series of transitional forms, to appertain to this one type; and it is acknowledged by some of the best writers that they were induced, on purely theoretical grounds, to give distinct names to some of the varieties now suppressed, merely because they found them in rocks so widely remote in time, that they deemed it contrary to analogy to suppose that the same species could have endured so long: a fallacious mode of reasoning, analogous to that which leads some zoologists and botanists to distinguish by specific names slight varieties of living plants and animals met with in very remote countries, as in Europe and Australia, for example; it being assumed that each species has had a single birth-place or area of creation, and that they could not by migration have gone from the northern to the southern hemisphere across the intervening tropics.

Examples are also given by Mr. Davidson of species which pass from the Devonian into the Carboniferous, and from that again into the Permian rocks. The vast longevity of such specific forms has not been generally recognised in consequence of the change of names, which they have undergone when derived from such distant formations, as when *Atrypa unguicularis* assumes, when derived from a carboniferous rock, the name of *Spirifera Urvii*, besides several other synonyms, and then, when it reaches the Permian period, takes the name of *Spirifera Clannyana* King; all of which forms the author of the monograph, now under consideration, asserts to be one and the same.

No geologist will deny that the distance of time which separates some of the eras above alluded to, or the dates of