

its typical characters; while in a third family the progress leads in a still different direction, and ends in another typical form; etc. And yet, in no one instance, can these characteristic patterns be considered merely as resulting from an arrest in the development of one continuous series. On the contrary, they are evidently modifications of one fundamental idea, expressed in various combinations of forms, which are so linked together, that it is only by an abstraction on our part that their connection may be ascertained, as it is only to an abstract conception that their origin and their combinations can be referred. If this be so,—and the sequel will, I trust, furnish satisfactory evidence that this is the only true view of the case,—it follows, that the different patterns which characterize the different families of Testudinata were devised, as the forms in which the structure of these animals were to be clothed, before they were called into existence. The various relations and the close connection which exist between these forms show further that their combinations were so considered beforehand, that when brought into existence they should constitute not only a regular series, but also a perfect system. In other words, the very outline of these animals, humble and low as they are, proclaims as loudly as the grandest features of nature, the direct intervention of a thinking Mind in their creation.

## SECTION II.

### THE FAMILY OF SPHARGIDIDÆ.

The genus *Sphargis*, which alone constitutes this family, is now generally referred to the family of *Chelonioidæ* by modern herpetologists, though for some time it has been considered as a distinct family<sup>1</sup> by the ablest zoölogists. In a

<sup>1</sup> It is a fact worth noticing, that no modern herpetologist has maintained the family of *Sphargididæ*, though it was, at first, generally adopted as a natural group. This is, no doubt, owing to the looseness of the views now prevailing respecting classification. In similar cases, the objection is constantly urged, that a distinction is not necessary because the genera are so few. It may be useless, it is true, if it leads to nothing beyond the introduction of a new name into the system; but if the distinction is based upon an accurate knowledge of the real standing of any single species exhibiting genuine family characters, then

it must be adopted, not because it may appear convenient, but because it exists in nature. I trust I shall show that this is the case with *Sphargis*. The first author who distinguished this genus from the other *Chelonii*, as a family, is J. E. Gray, who calls it *Sphargidæ*, (*Ann. of Philos.* 1825,) though I think it ought to be written *SPHARGIDIDÆ*, in accordance with its etymology. Th. Bell adopted it in 1828, (*Zool. Journ.* Vol. 3,) and so does Fitzinger in his last work, (*Syst. Rept.* 1843,) changing, however, the name to *DERMATOCHELYDÆ*; but since 1844 Gray unites it again with the *Chelonioidæ*. Canino considers it