various stages of its progress, as geology teaches us. That they were, like our own animal and vegetable contemporaries, profoundly adapted to the condition in which they were placed, we have ample reason to believe; but when we inquire whence they came into this our world, geology is silent. The mystery of creation is not within the range of her legitimate territory; she says nothing, but she points upwards.

## Sect. 6.—The Hypothesis of the regular Creation and Extinction of Species.

1. Creation of Species.—We have already seen, how untenable, as a physiological doctrine, is the principle of the transmutability and progressive tendency of species; and therefore, when we come to apply to theoretical geology the principles of the present chapter, this portion of the subject will easily be disposed of. I hardly know whether I can state that there is any other principle which has been applied to the solution of the geological problem, and which, therefore, as a general truth, ought to be considered here. Mr. Lyell, indeed, has spoken12 of an hypothesis that "the successive creation of species may constitute a regular part of the economy of nature:" but he has nowhere, I think, so described this process as to make it appear in what department of science we are to place the hypothesis. Are these new species created by the production, at long intervals, of an offspring different in species from the parents? Or are the species so created produced without parents? Are they gradually evolved from some embryo substance? or do they suddenly start from the ground, as in the creation of the poet?

Limbed and full-grown: out of the ground up rose
As from his lair, the wild beast where he wons
In forest wild, in thicket, brake, or den; . . .
The grassy clods now calved; now half appeared
The tawny lion, pawing to get free
His hinder parts; then springs as broke from bounds,
And rampant shakes his brinded mane; &c. &c.

Paradise Lost, B. vii.

Some selection of one of these forms of the hypothesis, rather than the others, with evidence for the selection, is requisite to entitle us to

<sup>&</sup>lt;sup>12</sup> B. 111. c. xi. p. 234.