quently put forward and popularly accepted. It is useful then to note that in the course of the second half of the century we were more and more growing out of the cyclical and realising the meaning of the genetic[1] view of things natural. We have been taught in astronomy to inquire into the origin of our solar or any similar system and the conditions of its duration, to ask concerning the central heat of the sun whence it came and how long it will last—a question unknown to Laplace,—to consider the effects of tidal friction, to learn that all the movements in nature are irreversible as distinguished from completely reversible ones, which only exist in abstraction; and, finally, we are met with the doctrine of the immortality of the germ-plasma, an idea, the meaning and significance of which I shall have to explain later on. All these novel theories and views combine to impress upon us the general significance of the terms "genesis, evolution, development," the fact that everything in and around us, in spite of the seeming recurrence of smaller movements and phenomena, and of the periodicity of the minuter and elementary changes, is slowly, continuously, and inevitably tending in a definite direction, which is certainly not that of a cyclical recurrence.

8. Supplanted by genetic view.

9. Geology.

Leaving aside for a moment these more general views, which have been clarified in the course of our century, it is interesting to note how they gradually emerged in

[1] Perhaps it would be more correct to say that we were learning to consider the changes within the larger cycles, confining ourselves to the study of one branch only of the periodic or cyclical movement of things around us, that branch which we are pleased to call the ascending or progressive branch.