

which regulate the movements of inanimate matter, or, in other words, *giving rise to movements* which would not result from the action of those laws uninterfered with; and therefore implying, on the very same principle, the origination of force. The first and greatest question which Philosophy has to resolve in its attempts to make out a Kosmos,—to bring the whole of the phænomena exhibited in these three domains of existence under the contemplation of the mind as a congruous whole,—is,

ment of a rudimentary joint followed in slow succession after centuries of hereditary improvement, by the others, up to the perfect member. It starts at once into completeness. The change in the *working-plan* of the whole hand has been carried out at once, by a systematic engraftment of blood-vessels and nerves into effective connexions with the centres of nutritive, mechanical, and sensitive action in the frame, as if by some preconceived arrangement. [Since this was written I have been informed of two or three instances of superfluous *thumbs*. They were imperfectly formed, not movable, and so far might be considered rudimentary.]

In direct reference to this point I would call the reader's attention to a very striking passage in the Croonian Lecture for 1865, delivered before the Royal Society by Prof. Beale, where, after stating that "phænomena occur in the simplest form of living matter, which never have been, and which," he believes, "never can be explained upon any known physical or chemical laws"—he goes on to say,—

"Living matter is not a machine, nor does it act upon the principles of a machine, nor is force conditioned in it as it is in a machine, nor have the movements occurring in it been explained by physics, or the changes which take place in its composition by chemistry. The phænomena occurring in living matter are peculiar, differing from any other known phænomena; and therefore, until we can explain them, they may well be distinguished by the term *vital*. Not the slightest step has yet been made towards the production of matter possessing the properties which distinguish living matter from matter in every other known state."—*Proceedings of the Royal Society*, xiv. p. 282, No. 72.