Growth by intussusception and assimilation has long been recognised as the characteristic property of all living matter, of every living cell. Mechanical causes suffice to explain the further process of division as a necessary consequence of continued growth, the formation of new cells out of existing ones, the process of reproduction. Only in the lower organisms, however, does reproduction exist simply as multiplication by division. In all higher organisms at least, reproduction by division seems connected with the phenomenon of death of a portion of the dividing organisms: a differentiation seems to set in between the new cells, some gradually losing their power of self-multiplication by division, and thus being doomed sooner or later to arrive at the end of their organic existence; while others retain this power or regain it by uniting with others—the process of fusion of male and female elements—and seem thus to be specially endowed with the work of reproduction—*i.e.*, the preservation of the continuity of life. The great morphologist Richard Owen, about the middle of the century, in a tract on Parthenogenesis, remarked that "not all the progeny of the primary impregnated germ-cell are required for the formation of the body in all animals: certain of the derivative germ-cells may remain unchanged and become included in

embryological development, assisted or disturbed by experiments carried on in microscopic dimensions, I recommend, besides the larger works of Hertwig and Roux, already referred to, the highly suggestive writings of Hans Driesch, notably his 'Analytische Theorie der organischen Entwickelung' (1894), and 'Die Biologie als selbständige Grundwissenschaft' (1893). As a very helpful introduction to the original views of this writer, English readers will welcome the concluding chapter of Prof. E. B. Wilson's book, 'The Cell in Development and Inheritance' (1896).