

the male organs or testes; in 1843 Martin Barry, an Edinburgh medical student, saw the union of sperm and ovum in the rabbit; in 1865 Schweigger-Seidel and La Valette St. George showed that the spermatozoon has a nucleus like other cells. Thus gradually was the simple fact demonstrated that *the spermatozoon is a cell*. Subsequent research has been concerned with studying the structure of the sperm, its mode of origin, and its behaviour in fertilization.

In his forty-ninth exercitation, on "the efficient cause of the chicken", Harvey thus quaintly expresses what Fertilization. has always been, and still is, a baffling problem:—"Although it be a known thing subscribed by all, that the foetus assumes its original and birth from the male and female, and consequently that the egge is produced by the cock and henne, and the chicken out of the egge, yet neither the schools of physicians nor Aristotle's discerning brain have disclosed the manner how the cock and its seed doth mint and coin the chicken out of the egge".

Baffling as the problem remains, it must be granted that great progress has been made in the later years of the Victorian era; many hundreds of researches directly bearing on fertilization have been published since 1875; the visible phenomena have been described in detail in a multitude of cases; and we have become much more definite as to what we wish to know.

On the old views as to the nature of fertilization we need not dwell; they were mere opinions without adequate basis of facts. Some said the ovum was all-important, and that the sperm merely supplied the awakening touch; others said that the sperm was all-important, and that the ovum merely supplied the necessary nutriment; and even when both elements were recognized as essential, vague ideas prevailed as to the nature of fertilization. De Graaf believed in an "aura seminalis" or seminal breath which passed from the male fluid to the ovum, and until 1854 Bischoff clung to the theory (which he then abandoned) that a mere touch of sperm and ovum was sufficient to ensure development.