

Upon this, Geoffroy, an apothecary at Paris, scrutinized afresh the sexual organs; he examined the various forms of the pollen, already observed by Grew and Malpighi; he pointed out the excretory canal, which descends through the style, and the *micropyle*, or minute orifice in the coats of the ovule, which is opposite to the extremity of this canal; though he committed some mistakes with regard to the nature of the pollen. Soon afterwards, Sebastian Vaillant, the pupil of Tournefort, but the corrector of his error on this subject, explained in his public lectures the phenomenon of the fecundation of plants, described the explosion of the anthers, and showed that the *florets* of composite flowers, though formed on the type of an *androgynous* flower, are sometimes male, sometimes female, and sometimes neuter.

But though the sexes of plants had thus been noticed, the subject drew far more attention when Linnæus made the sexual parts the basis of his classification. Camerarius and Burkard had already entertained such a thought, but it was Linnæus who carried into effect, and thus made the notion of the sexes of vegetables almost as familiar to us as that of the sexes of animals.

*Sect. 3.—The Consequent Speculations.—Hypotheses of Generation.*

THE views of the processes of generation, and of their analogies throughout the whole of the organic world, which were thus established and diffused, form an important and substantial part of our physiological knowledge. That a number of curious but doubtful hypotheses should be put forward, for the purpose of giving further significance and connexion to these discoveries, was to be expected. We must content ourselves with speaking of these very briefly. We have such hypotheses in the earliest antiquity of Greece; for as we have already said, the speculations of cosmogony were the source of the Greek philosophy; and the laws of generation appeared to offer the best promise of knowledge respecting the mystery of creation. Hippocrates explained the production of a new animal by the *mixture of seed* of the parents; and the offspring was male or female as the seminal principle of the father or of the mother was the more powerful. According to Aristotle, the mother supplied the *matter*, and the father the *form*. Harvey's doctrine was, that the ovary of the female is fertilized by a *seminal contagion* produced by the seed of the male. But an opinion which obtained far more general reception was, that