place since the publication of Darwin's works, by the industry of friend and foe, with the object of proving or of disproving and modifying Darwin's theories. Whole chapters, such as those referring to the fertilisation of plants through insects, to the part which colour plays in the world of flowers or in the plumage of birds and in the wings of butterflies and moths, have been added to our handbooks of natural history;[1]

37. Fertilisation of plants and "Mimicry."

[1] Two remarkable instances may be mentioned. It was known to Christ. Conrad Sprengel that many flowers are "dichogamous"—*i.e.*, that though the organs for self-fertilisation exist in the same flower, nevertheless, because of a want of timekeeping or for other reasons, pollination is done by crossing, wherein the visits of insects are instrumental through elaborate existing arrangements. "Variously coloured spots serve as honey-guides and pathfinders to the exploring insects, hairs protect the nectar from rain and yet offer no obstacle to desirable visitors, other arrangements secure that the insects are dusted with pollen" (J. A. Thomson, 'The Science of Life,' p. 192). Sprengel published his observations in a remarkable book (1793) with the title 'The Secret of Nature discovered in the Structure and Fertilisation of Flowers.' Such was the enthusiasm of this true naturalist, that he, "after being ejected from the rectorate of Spandau for neglecting his flock in favour of flowers, settled down to a frugal life in Berlin, and gave lessons in languages and botany. The commonest plant became new by what he had to say about it; a hair, a spot, gave him opportunity for questions, ideas, investigations" (ibid., p. 191). Sachs ('Gesch.,' p. 449) considers Sprengel's little work to contain "the first attempt to explain the genesis of organic forms out of definite relations to their environment." For sixty years this bionomical classic was forgotten. Darwin in 1841 heard of it through Robert Brown, who, according to Dr Gray ('Nature,' 1874, p. 80), "in common with the rest of the world, looked on Sprengel's ideas as fantastic." The book impressed Darwin, who in 1837 had written in his notebook: "Do not plants which have male and female organs together, yet receive influence from other plants?" as being "full of truth." (See 'Life of Darwin,' vol. i. p. 90; vol. iii. p. 257.) The other important research which has been much stimulated by the two great propounders of Darwinism, is the study of the meaning of colours in plants and animals and the allied subject of "Mimicry." "It is the wonderful individuality of the colours of animals and plants that attracts our attention — the fact that the colours are localised in definite patterns, sometimes in accordance with structural characters, sometimes altogether independent of them, while often differing in the most striking and fantastic manner in allied species. We are thus compelled to look upon colour not merely as a physical but also as a biological characteristic, which has been differentiated and specialised by