Short Notices of Recent Books.

The Variation of Animals and Plants under Domestication. By Charles Darwin, M.A., F.R.S. 2 vols. London: Murray. 1868.

The latest sensation in the world of publications is Mr. Darwin's splendid work—the first instalment of a series—on the

influence of Artificial Selection as an argument in favor of his theory of the "origin of species." We say splendid, because, whether our sympathies be with or against the advocates of evolution, we cannot but admire the patient perseverance of a philosopher who has accumulated so vast an array of facts as those in the volumes before us, and who has displayed so much calmness in laying down his opinions, and so much forbearance in replying to the bitter personalities in which his opponents have indulged. The two portions of the present work, though they are both branches of the evolution argument, are, nevertheless, somewhat distinct. In the first volume the author takes up the subject of domestic breeding, and shows that, in the case of cattle, dogs, cats, fowls, rabbits, pigeons, vegetables, fruits, and flowers, the principle of "artificial selection" has been employed to produce a great number of different groups of beings from individual species. He then points out the remarkable osteological and other structual features which separate these breeds from each other, and calls attention to the fact that, were the mode of origin of these breeds unknown, no naturalist would hesitate to class them as distinct species or even genera. There are strong points in his favor. In reply to the objection of his adversaries, that these breeds are fertile *inter se*, thus differing from true species, he says, though not in these words:—"I grant it; it is certainly an argument which I ought to get over, and which I hope to overthrow completely one of these days. Meanwhile, I would contend that domestication tends to diminish the sterility of wild animals, as shown by the fact that, though two original species are sterile *inter se*, their domestic descendants are quite fertile with each other." He adds also that there are certain peculiarities of the reproductive organs which may account for the sterility of natural, as distinguished from artificial, species. The subject of connecting links is another difficulty which has been already partly met by Professor Huxley, and which will be considered by Mr. Darwin in a future treatise. The second volume treats of, and endeavours to expose, the mysterious laws which control the tendency of animals to vary. In this Mr. Darwin seeks to support an hypothesis which he terms *pangenesis*, and which is very like the panspermy of old Bonnet, according to which the ovum or germ contains *molecules* which represent every portion of the body, and from which, accordingly, the various mechanisms which constitute the organism are subsequently developed. As we have already said, whatever way the reader's mind inclines, he will find Mr. Darwin's new work a veritable store-house of wonderful facts and biology; and whether he forms any conclusion as to the truth of the evolution doctrine or not, he, at all events, cannot fail to be benefited by examining the immense accumulation of truths which Mr. Darwin has here arranged together.