

student's armoury. Such, for example, are the two chapters on the classification of compounds.

The treatment throughout is simple and lucid, and there is nothing that is likely to puzzle or mystify a reader. The contents will give him a good, useful store of information relating to the theoretical side of chemistry, though it will be meagre on the topics which have come to the front during the last twenty years, and to which, in a mere revision, it has scarcely been possible to do justice. In some cases the faults pass beyond those of omission, as in the confusion between dissociation and hydrolysis on p. 172, the account of "palladium hydride" on p. 171 and the definition of cryohydrates on p. 255. A. S.

Marvels of the Universe. A Popular Work on the Marvels of the Heavens, the Earth, Plant Life, Animal Life, the Mighty Deep. By various authors. In about twenty-four fortnightly parts. Part i., pp. 48. Part ii., pp. 48. (London: Hutchinson and Co., n.d.) Price 7d. net each part.

Of the attractiveness of this serial publication it would be difficult to write too highly. Each part contains four full-page illustrations in colour, remarkable alike for their beauty and accuracy, and a profusion of excellent pictures in black and white, most of which are from photographs.

The contributors are well-qualified authorities on the subjects they have undertaken, and what they have written is appropriate to the work. The selection of topics has been guided entirely by what is likely to arrest the attention of the non-scientific general reader, with the result that instead of an orderly introduction to science, we have a series of short, bright views of some of the wonders of nature, arranged in no logical sequence, but partaking of the character of a scientific scrap-book, using the term to express disjointedness rather than depreciation.

Unrelated as the articles are, they may serve a very useful purpose and succeed in attracting readers to the more serious study of some science in which they will be led themselves to observe and record what is happening in the world around them, as well as to take an interest in the explorations of others.

LETTERS TO THE EDITOR.

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The Scientific Misappropriation of Scientific Terms.

WHILE fully sympathising with Prof. Gregory in his condemnation of the scientific misappropriation of popular terms, and, indeed, objecting to the scientific *appropriation* of such terms where it would be better to employ a universally intelligible technical language, still, it seems to me that even more deserving of condemnation is the misappropriation by one group of scientific workers of the scientific terms used by another group. This procedure is the more objectionable when the two groups of workers are in adjoining fields. It does not greatly hurt anyone that an astronomer should mean by an "asteroid" something quite different from that which a zoologist means; but it does matter when one biologist uses a term in a different sense from another biologist.

Of late years some of us have felt driven to protest against Prof. H. de Vries's use of the term "mutation" in a sense differing in an apparently trivial, yet philosophically important, way from the use of the term by its original inventor—the palæontologist Waagen. Now we find the followers of Prof. de Vries, notably Prof. Johanssen, robbing the systematic biologists of their term "genotype." First proposed by Prof. C. Schuchert in

1897, this term has come into very general use to denote the type-species of a genus. There has been in the past so much confusion between the different senses of the word "type," and this confusion has given rise to so much regrettable confusion of thought, that this latest malappropriation should only need pointing out to be at once stopped. Unfortunately, this simple action has not had the desired effect, and therefore I am impelled to make a protest in your widely read pages. F. A. BATHER.

Wimbledon, November 2.

The Electro-vegetometer.

EXPERIMENTS with electricity as a stimulant to plant growth were made with alleged success 165 years ago, when Mr. Maimbray, of Edinburgh, electrified two myrtles throughout October, 1746, for several hours a day, with the consequence that next summer they blossomed sooner than their neighbours (Priestley's "History of Electricity," part viii., sec. 4).

Shortly after this the Abbé Nollet made similar experiments with electrified seeds in pots, and claimed equally successful results. M. Acharde, of Berlin, and other independent observers confirmed the experiments; and the beneficial effect of electrification on plant life was almost an accepted discovery when a Dr. Ingenhousz, after exhaustive experiments, completely refuted all the conclusions hitherto arrived at, and proved that the only effect of electrification was to hinder plant life!

Dr. Carmoy and the Abbé Ormoy later resumed the investigation, and testified to favourable results.

Next the Abbé Berthelon reconciled these divergent conclusions by announcing that electricity in a moderate application was beneficial, but could be applied in excess with harmful results; and he advocated as the safest method the utilisation of atmospheric electricity, which he said rarely rose to a strength injurious to the most delicate plant. He published a suggestion, recently credited by Sir William Ramsay as a new and ingenious theory of Sir Oliver Lodge's, that the pointed leaves of plants acted as conductors of atmospheric electricity, and were an important factor in the prolific vegetation of forests.

The Abbé Berthelon, who utilised both natural and artificial electrification, devised what he called the "electro-vegetometer," which consisted of an insulated series of sharp iron points projecting vertically upwards at a mast-head and connected by chains with similar iron points pointing downwards just over the plants to be experimented on. He states that "the happiest effects were perceived, viz. different plants, herbs, and fruits in greater forwardness than usual, more multiplied, and of better quality."

Until lately all these alleged successes were supposed to have been imaginary; and the question is, Will the recent experiments prove that there was more in the earlier ones than has been supposed, or will the present trials turn out to be, with their predecessors, further examples of myths of science, like the Blondlot rays and Mrs. Somerville's supposed discovery of a magnetising power in solar light? CHARLES E. BENHAM.

Colchester, November 5.

November Meteor-showers.

THE early part of November does not present anything very noteworthy as regards meteoric phenomena, which may be said to begin about November 9, the following being the principal meteor-showers of the month:—

Epoch November 9, 6h. (G.M.T.), first order of magnitude. Principal maximum, November 11, 0h. 30m.; secondary maxima, November 9, 11h. 50m., and November 10, 10h. 40m.

Epoch November 10, 15h. 30m., twenty-second order of magnitude. Principal maximum, November 11, 11h. 30m.; secondary maxima, November 11, 19h. 20m., and November 12, 7h. 40m.

Epoch November 13, 16h., thirtieth order of magnitude. Principal maximum, November 14, 22h. 50m.; secondary maxima, November 15, 9h. 30m., and November 16, 13h. 15m. and 17h. 30m.

Epoch November 16, 10h., thirteenth order of magnitude. Principal maximum, November 15, 21h. 10m.; secondary maximum, November 15, 7h. 15m.