by sponsors experienced in one or two branches of science, and, while much remains to be done to systematise our knowledge of smell, the present classification is very suggestive. Much space is devoted to a discussion of the origin and development of scent, its function in the plant and elsewhere, and to our appreciation of it. The author's theory of human reaction to scents will be more acceptable than the crude and somewhat malodorous treatment usually accorded by the psychologist to the subject.

Garden lovers in the study, especially those planning a garden, will be greatly indebted to Dr. Hampton for the wealth of information on the history of scented plants and the arrangement of a scented garden. *Rosa gallica* (the Rose of Provins) is mentioned, but no connected history of this early variety is given. Printers' errors appear to be absent. The repeated spelling "benzine" and the use of "benzoloid" are unfortunate; "stereoptene" should be "stearoptene," and a much fuller index would be valuable. The statement that citral is the scent substance of citronella requires qualification.

The book has a pleasant literary style, and possesses personality. On account of the many interests associated with floral perfume, "Flower Scent" is certain to make a wide appeal, and needs only to be read to be enjoyed. HUGH NICOL.

Macrophotographie et microphotographie. Par F. Monpillard. (Encyclopédie scientifique: Bibliothèque de photographie.) Pp. xxxi+671. (Paris: Gaston Doin et Cie, 1925.) 25 francs.

THE two branches of the subject are not sharply distinguished, but, speaking generally, macrophotography concerns objects that are large enough to be seen, with at least some detail, by the naked eye, and need only a low magnification, if any, so that they are conveniently photographed by a lens of short focal length attached directly to the camera. Examples given by the author are a group of mounted butterflies and physiological dissections and preparations. Microphotography is the photography of smaller objects with higher magnifications, such that the use of a microscope stand is very desirable if not necessary. Many details are common to both methods of work, so that there is a distinct advantage in treating them together, especially as macrophotography is too often neglected in present-day text-books as belonging neither to ordinary photography nor (as we prefer to call it) photomicrography.

The author includes the use of polarised light, microspectrography, metallography, instantaneous microphotography and microcinematography, photography by means of ultra-violet light, stereoscopic work, microradiography, and stereoradiography. So many subjects obviously cannot be treated at great length in the space available, but the salient points of modern methods are given, and also a good deal of historical matter. It would be advantageous if the illustrations were of better quality and rather more numerous, and we may add that Mr. W. Thorp's method of making grating replicas was not by pressing with an hydraulic press thin celluloid upon an original Rowland grating, as is stated, but by pouring a solution of celluloid upon the original, and then stripping and mounting the resulting film. The volume should certainly be welcomed by scientific workers.

The Daubeny Laboratory Register, 1916–1923: with Notes on Scientific Researches carried out by Members of Magdalen College, Oxford. By R. T. Gunther. Vol. 3. Pp. vii+297-532. (Oxford: The Laboratory, Magdalen College, 1924.) 10*s.* 6*d.*

TWENTY years ago, Mr. Gunther published the first volume on the origin and history of Daubeny's principal benefactions to Magdalen College, Oxford, and in 1915 this was followed by a second volume. He now adds a third volume on work in the Daubeny laboratory from 1916 to 1923, and expresses regret that it is no longer possible to use Daubeny's building for scientific research or the housing of his collection. Changed conditions in the University seem to have been regarded as justifying the closing of the laboratory in 1923.

Mr. Gunther refers to his own researches in the volcanic region of Naples, which were directly stimulated by Daubeny's work and the collections he left to the College. He also gives some account of the recent discovery of Pleistocene mammalian remains in the College grounds, and publishes photographs of some fossil crocodilian vertebræ from the Kimmeridge Clay of Shotover, which appear to be unique in showing stains of the adjacent blood-vessels.

In addition to the record, the volume includes notes on some of the early naturalists associated with Magdalen College, and on others who have undertaken scientific research there. It also incorporates much matter of historical interest to the College, which Mr. Gunther has recovered from the archives while pursuing his researches on early science at Oxford.

The Dynamo: its Theory, Design, and Manufacture. By C. C. Hawkins. Sixth edition, revised throughout and largely rewritten. Vol. 3: *Alternators.* Pp. xviii+572. (London: Sir Isaac Pitman and Sons, Ltd., 1925.) 30*s.* net.

IN this volume the author discusses the design and working of the generators which produce alternating current. So many books and papers have recently been published on the subject that he finds it necessary only to give a rapid résumé of some modern developments. He confines himself to the more practical side of his subject, and the dynamo designer can at once compare his own formulæ with those given by the author. In 1909 Sir Thomas Lyle gave his theory of the alternating current generator to the Physical Society of London. Judging by results, however, it has proved a little too difficult for the practical designer and it is not mentioned by the author. To the student, however, it would prove interesting and instructive. The chapters on the turbo-alternator and the parallel running of alternators have been carefully written and should prove helpful to the engineer. The author, when discussing armature reaction, adopts and strongly advocates the two-reaction method of A. Blondel. This phenomenon is barely mentioned in the older books. For a full discussion of it a theory similar to Lyle's would have to be devised. We can recommend this volume to dynamo designers.