it being his aim that the present edition should be strictly a work of Dr. Thomson, and not one representing the editor's opinions on the subject of therapeutics. The character of the work, likewise, which does not profess to enter into much therapeutical detail, prohibits the introduction of all controversial discussions on the action of medicines. . . . In Part III., which contains all the official preparations of the London, Edinburgh, and Dublin Colleges, the greatest alterations have been made, rendered necessary by the appearance of the new Pharmacopœias. As the value of a dispensatory, both to the medical practitioner and also to the dispenser, depends upon its accuracy, the editor has spared no pains to render this part of the work correct, so that it may be appealed to with confidence; and though aware of the great difficulty existing, on account of the discrepancies in names, composition, &c., of various preparations in the three Pharmacopœias, he trusts he will not be found to have fallen far short in effecting his object."

We have every confidence that the present edition of this Dispensatory will be found well worthy of the reception which has been accorded by the profession to so many of its predecessors; and that Dr. Thomson's useful labours in this and other fields will continue fruitful, so long as they shall be as ably followed up as they have already been.

ART. III.—*A Popular History of the British Ferns and Allied Plants, comprising the Club-mosses, Pepperworts, and Horsetails.* By THOMAS MOORE, F.L.S., Curator of the Botanic Garden of the Society of Apothecaries. With Twenty Coloured Plates.—London. Square 16mo, pp. 354.

THERE is no group of plants more pleasing than that of Ferns, as regards the elegance of their forms and the gracefulness of their port; and as our British species are neither very numerous nor very inaccessible, and are for the most part very easily cultivated, and do not lose their interest when dried for the herbarium, they present a very attractive object of study for those who seek a healthful occupation which brings them into contact with Nature, and who do not set store either by gaudy flowers or by varied foliage. For the physiologist, again, they have many points of peculiar interest; among others, that it has been from the study of their development, that the sexuality of the higher Cryptogamia, which is now coming to be generally admitted among botanists, was first put upon a tolerably certain basis.—The little work before us is rather addressed, however, to those who collect and cultivate Ferns for their amusement, than to scientific botanists; being one of the series of illustrated popular works on various branches of natural history, which do so much credit to Mr. Reeve's press, and of which we have noticed most of the members as they have successively appeared. The author has endeavoured to familiarize his readers with the plants of which he treats, without entering upon abstruse discussions about specific identity and diversity, or other dubious and debateable matters, on which different enquirers have been led to diverse opinions, and which are only interesting to the advanced student; and for this purpose his work is extremely well adapted, his illustrations being appropriate and well drawn, and his descriptions clear. We might suggest, however, that a few figures of the fructification, more highly magnified than any which the plates contain, would have been useful in explaining the description of its parts which are given in the chapter on the "Structure of Ferns;" and

would have also been, in a merely ornamental point of view, no inappropriate addition to the excellent series which the volume includes, since there are few among our microscopic "objects," that are more beautiful than the *sori* of some of our commonest ferns.

ART. IV.—*A Handbook of Organic Chemistry; being a new and greatly enlarged edition of the 'Outlines of Organic Chemistry,' for the use of Students.* By WILLIAM GREGORY, M.D., F.R.S.E., Professor of Chemistry in the University of Edinburgh.—London, 1852. 12mo, pp. 532.

THE new title under which Professor Gregory's 'Outlines' now appears, is fully justified by the altered character of the work, to which, as now enlarged, its former designation would have been inappropriate. This enlargement is not due so much to the accumulation of minute details, as to the embodiment of general principles, in the development of which the researches of the last few years have been peculiarly fruitful. The most important of these researches, however, receive their full share of notice; particular stress being laid on those which are suggestive of further progress.

"For example, the brilliant discovery (predicted in 1839 by Liebig) of the new volatile bases homologous with ammonia, by Wurtz, and so admirably followed out by Hofmann in the latter part of his splendid series of papers on the artificial bases; Hofmann's own most recent discovery of the singular class of ammonium bases; the researches of a host of chemists on that striking series of volatile acids beginning with formic acid, and ending, for the present, with melissic acid, and on the oils and fats generally; the continued discovery of new compounds belonging to the methylic, ethylic, and amylic series; the researches of Frankland and Kolbe on the radicals of the ethylic group, and those of Frankland on the compounds of those radicals with metals; those of P. Rénard on compounds of phosphorus with the same radicals; the light shed on the doctrine of substitution by these investigations, and by those of the French school, by Laurent, Gerhardt, Cahours, and others; the admirable monograph on the bile by Strecker; the introduction of hyponitrous acid as a means of oxidizing organic compounds by Pirea and Strecker; the minute study of the products of decomposition of the albuminous compounds, by Bopp, Guckelberger, and others; the many additions to our knowledge of physiological chemistry by Liebig and many other chemists; and the rapid development of the doctrine of homologous series, as a practical guide in research." (p. viii.)

The section on the nutrition of plants and animals, also, has been entirely rewritten on a larger scale; and now constitutes probably the best outline of the subject which has yet been given. Here, as in other chemical treatises, however, we meet with statements based upon the mere chemical relations of the components of the body, which are by no means correct physiologically; and we feel satisfied that, as Professor Lehmann has most successfully shown, the true import of the chemical changes which take place in the living system can only be made out by the study of its economy,—Chemical action being to be here viewed as in subordination to Vital, rather than Vital as a mere product of Chemical.