into the book may be appalled at the new terms and forms of expression which are copiously scattered through its pages, yet we cannot see that these could have been dispensed with, save by a most undesirable circumlocution; and those who will take the trouble to begin at the beginning, instead of at once turning to the conclusion, will have no difficulty, we feel assured, in comprehending the author's meaning. The descriptions, we should add, are illustrated by fifty woodcuts, illustrating the peculiarities of M. Du Bois-Reymond's apparatus, and of his methods of employing it; so that we are not only able to judge the better of the value of his results, but such as have the means of doing so can also test them for themselves, without those errors which so frequently arise from variations in the mode of experimenting.

ART. VII.—*Class-Book of Botany; being an Introduction to the Study of the Vegetable Kingdom*. By J. H. BALFOUR, M.D., F.R.S.E., F.L.S., Professor of Botany in the University of Edinburgh. With upwards of 1000 Illustrations.—London, 1852. 8vo, pp. 357.

THE object of this treatise is "to initiate the student into the study of the structure and forms of the various parts of plants;" and it is limited to Histology and Organography, or "a description of the tissues of which plants are composed, and of the various organs concerned in the processes of nutrition and reproduction." It is, no doubt, a vast improvement upon all the treatises which are constructed according to the old model, and is especially commendable for the beauty and copiousness of its illustrations; but still we cannot help wishing that Professor Balfour had thrown that model entirely aside, and had presented us with a treatise more worthy of the position he holds, in which the whole of the beautiful series presented by the Vegetable kingdom should be treated as a connected whole; instead of devoting nearly his entire attention to the Phanerogamic plants, and pushing aside the Cryptogamia as a sort of troublesome appendage, about which it is necessary to say something.

The recent researches of Hoffmeister have fully confirmed the views which we expressed on a former occasion* with regard to the sexuality of the Cryptogamia, and have established this point almost beyond a doubt; whilst they have at the same time demonstrated such a continuity in the essential nature of the reproductive organs, between the Coniferæ and the higher Cryptogamia, that the line of distinction between the two groups must henceforth be regarded as quite an arbitrary one. We purpose giving some account of these researches in our next number.

ART. VIII.—*The Vegetation of Europe; its Conditions and Causes*. By ARTHUR HENFREY, F.L.S., &c.—London, 1852. Fcap. 8vo, pp. 387. With a Map.

THIS compact little volume is the first of a series which Mr. Van Voorst purposes to issue, under the title of 'Outlines of the Natural History of Europe;' and it contains a general *resumé* of the labours which have been most

* Vol. iv. p. 341.

industriously carried on for some time past, by a large number of observers, into the geographical distribution of plants, and the circumstances which modify it,—some of these circumstances being the physical conditions afforded by climatic influences, and others the various modes of transport which bring about the migration of plants, and facilitate their radiation from original or from acquired habitats. These general and special influences are considered in two introductory chapters, which will amply repay an attentive perusal; and the vegetation of Europe is then described, as it presents itself in the ten principal provinces into which this quarter of the globe is marked out by the physical conditions of each part, rather than by actual boundaries.

The treatise, though small in compass, presents a large amount of well-selected information, conveyed in a very pleasing style; and Mr. Henfrey's well-known eminence as a philosophical botanist and a painstaking writer, is a guarantee of the accuracy of his digest.

ART. IX.—*Lectures on Histology, delivered at the Royal College of Surgeons in England, in the Session 1850-51.* By JOHN QUEKETT, Assistant Conservator of the Museum. Illustrated by 159 Woodcuts. London, 1852. 8vo. pp. 215.

THIS volume consists of a reprint, with some additions, of the lectures which have already appeared in the 'Medical Times,' and which many of our readers have doubtless perused with pleasure and profit. The first nine lectures are devoted to the histology of Vegetables, which Mr. Quekett has done wisely to introduce into his course; since not only does the study of the minute structure and growth of plants throw great light upon that of animals, but in much that relates to manipulation and to the right interpretation of the phenomena examined, the young microscopist will find it the best possible introduction. This subject is very copiously treated; and all the points which are of special interest to the human physiologist and pathologist are very fully dwelt on. The histology of Animals is only commenced in this volume; the subjects included in the nine remaining lectures of the course, being the simple fibrous tissues, the various forms of cartilage, and fat.

It is almost superfluous to state, that these lectures are of the highest value, for the clear and concise expression which they give to Mr. Quekett's opinions on the various subjects of which they treat; and that those opinions, based as they are upon a knowledge of the whole subject to which scarcely any other microscopist can lay claim, are of first-rate authority. The numerous illustrations are for the most part very characteristic, although not possessing the high finish with which we have been of late rendered familiar. And it only remains for us to express the hope, that Mr. Quekett will not follow certain bad examples we could name, in delaying the completion of his work, until those who may have purchased this first part have been driven to other sources of information on the subjects which remain to be treated.

We cannot refrain from expressing the pleasure we have derived from the recent appointment of Mr. Quekett as Professor of Histology to the