

rather to be referred to the quartz-keratophyres than to the quartz-porphyrries (p. 418).

We are glad to see that olivine is no longer regarded by the author as an essential constituent of basalt. This rock-name is thus made to gain considerably in significance, since it now embraces all (neo-)volcanic rocks of *basic* composition which essentially contain plagioclase and augite, whether they occur as lava-sheet or dyke. The *acid* plagioclase-augite rocks, on the other hand, whether with or without olivine, are referred to the andesites.

In connection with the basalts, it may be of interest to point out how considerable an alteration in the minor subdivisions of a rock-group has been produced by modern microscopic research. The old familiar grouping of the basalts, according to their granular texture, as dolerite, anamesite, and basalt, has been superseded. The modern petrographer distinguishes, with Prof. Rosenbusch, between the following structural varieties, which may coexist with any granular dimension: (1) "hypidiomorphic granular," (2) "intersertal," (3) "holocrystalline-porphyrritic," (4) "hypocrystalline-porphyrritic," and (5) "vitrophyric."

Welcome additions to the book are an appendix to the invaluable literature-index of Vol. I., bringing it up to the present date; and a useful index of localities, compiled by Dr. H. B. Patton. The book is well got up, well printed, and remarkably free from typographical errors.

F. H. HATCH.

A TREATISE ON CHEMISTRY.

A Treatise on Chemistry. By Sir H. E. Roscoe, F.R.S., and C. Schorlemmer, F.R.S. Vol. III. The Chemistry of the Hydrocarbons and their Derivatives; or, Organic Chemistry. Part IV. (London: Macmillan and Co., 1888.)

THE present instalment of this well-known work deals with those benzenoid compounds containing respectively seven and eight atoms of carbon.

The excellent features referred to in our notices of the previous parts are preserved in this new section. The historical portions are especially valuable. Most text-books of organic chemistry restrict themselves to giving an account of the existing state of the science; but in the present work the description of every important compound, or group of compounds, is prefaced by an historical review of the various investigations which have led up, step by step, to the views now held. To students of organic chemistry, who, in ninety-nine cases out of a hundred, never see the older memoirs (and, if they did, would probably only be bewildered by the obsolete nomenclature and formulæ), these historical introductions are a great boon. As instances of this interesting mode of treatment, we may cite the historical introductions to the subjects of *toluene*, of the *nitrotoluenes*, and of *creosote*—with the account, in the latter case, of the confusion between creosote and phenol, and of the way in which this confusion was eventually cleared up. In this connection we may call the attention of our spelling-reformers among English chemists to the passage (p. 33) quoted from Reichenbach's original memoir in which he first coins the word "creosote." The etymological

knowledge of the average English chemist (when it exists at all) is little—and dangerous. He has learned that there is such a word as *κρέας*, and rashly opining that he is at liberty to derive an English word from a Greek nominative, he changes Reichenbach's spelling to "creasote"—a corrupt form which, as "creasotum," has passed into the *Pharmacopœia*, embalmed in the choicest apothecaries' Latin. One regrets that the zeal of the reformer was not tempered by the knowledge that Reichenbach derives the word from the contracted genitive, *κρέως*.¹

The descriptive portion of the work is full and accurate. The only case that we have noticed in which the information is not up to date is in the account of the *benzaldehydines* (pp. 141 and 142), which are represented as ordinary condensation-compounds of ortho-diamines with benzaldehyde; whereas Hinsberg showed, about a year and a half ago, that they are in reality benzylated anhydro-bases. The name "Nevile" is also throughout erroneously given as "Neville."

OUR BOOK SHELF.

A Text-book of Organic Materia Medica. By Robert Bentley, M.R.C.S., F.L.S. Cr. 8vo. pp. 415. (London: Longmans, Green, and Co., 1887.)

It is a difficult matter to produce a text-book of materia medica which shall answer the requirements of the student in these days. No subject is less clearly defined either by teachers or by the authorities at Examining Boards. Prof. Bentley indicates this difficulty in his introduction, where he first defines "materia medica" and the allied words "pharmacology" and "therapeutics," and then confesses that our first English authority in this department of science, Dr. Lauder Brunton, has used some of the terms in a different sense. There is one advantage, however, in this difference of view—namely, a variety in the treatment of the subject; and we have to thank Prof. Bentley for having produced a work which departs in many directions from the somewhat stereotyped arrangement of English works on materia medica.

As might have been expected from the accomplished Professor of Botany in King's College, the work is mainly devoted to a careful description of the characters of medicinal plants and their products. The arrangement of the plants is founded, so far as the Phanerogamia are concerned, upon that adopted by Bentham and Hooker in their "Genera Plantarum." The descriptions are given very fully, so as to enable the student to recognize the drugs with facility and certainty, and thus at the same time readily to detect any adulteration. The author is right when he expresses his belief that in the latter respect the book will be especially valuable to the pharmacist. To the medical student and to the medical practitioner adulteration is no longer a subject of direct interest. The day has gone by when crude drugs came into the dispensary of the doctor, who now buys all the preparations ready made; and the Examining Bodies, aware of this, have relieved medical students of the laborious subject of drug adulteration, and now require of them the recognition of but a few of the most important specimens. No doubt the book will find its largest circle of readers amongst young men preparing for the examinations of the Pharmaceutical Society.

In our opinion it would have been better to give the strength as well as the dose of the more important preparations, such as those of opium.

The sections on the chemical composition of drugs have

¹ "Of course the reformer may write "creasote" if he chooses; but "creasote" is inadmissible.