

dency to return to vegetable colouring-matters, and that large quantities of maqui berries are being imported into Europe from Chili for the purpose of colouring wines. In the three years ending 1887 the exports of this substance were respectively 26,592, 136,026, and 431,392 kilos, by far the largest proportion finding its way to France.

The little book before us has no pretensions to be regarded as a complete treatise on the analysis of wines. Its aim is to furnish the analyst with a number of carefully tested methods for the detection of sophistications and adulterations, and for the rapid determination of those constituents on which the character of wine mainly depends. Dr. Magnier de la Source is well known in France as an authority on the subject, and the *Bulletin* of the French Chemical Society contains papers by him relating to the analysis of wine. His methods are, for the most part, similar to those adopted by the Association of German and Austrian analysts, although they are not described with that minute attention to detail which has been found desirable by the German-speaking chemists. As may be seen on turning over the pages of Fresenius's *Zeitschrift für analytische Chemie*, the "musts" and wines of Germany are periodically examined and reported upon with all the method and regularity adopted in the case of the London water-supply; and it has happened in the past that the modes of determining such constituents as the vegetable acids, glycerin, and "extractive matters" have been discussed and wrangled over in a manner which recalls the famous fights over "organic carbon," "albuminoid ammonia," and "previous sewage contamination" of years ago. The only fault that we have to find with this book is that its author hardly does justice to his German brethren; although, it is but fair to add, some reference to their work is to be found in the excellent bibliography at the end of the volume. T. E. T.

#### MODERN THERAPEUTICS.

*An Introduction to Modern Therapeutics.* By T. Lauder Brunton, M.D., &c. (London: Macmillan and Co., 1892.)

THIS work is a reprint of the Croonian Lectures delivered before the Royal College of Physicians, London, in 1889. Whatever Dr. Brunton writes is sure to be interesting, and the present lectures have lost none of their lucidity or freshness though three years have elapsed since they were before the medical profession. It is hardly necessary to say that the subject is one with which Dr. Lauder Brunton is eminently fitted to deal, and the non-medical reader will be convinced when he has read the volume that medicine and therapeutics are far from being the inexact sciences they were not many years ago. The elementary nature of some of the early pages will be understood when it is remembered that the audience before which the lectures were originally given consisted in a large measure of men who had learnt chemistry before the days of Crookes, Lockyer, and Mendeleeff. It was necessary that the author should lead them through a brief survey of the chief facts and theories relating to atoms and molecules until the more difficult subject of the composition, constitution, and methods of union of organic radicles is reached. This is done in an

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admirably clear summary, assisted by those apt illustrations drawn from every-day life for which Dr. Brunton is so well-known. Our new drugs are now made by the chemist; so great has been the advance of organic chemistry, that the pharmacologist has hard work to keep pace with all the new combinations that issue from the laboratory. But the two classes of investigators, the chemists and the experimental therapeutists, have at least gone hand in hand so far, that it is now possible to judge the action of a drug by its composition. This, however, as Dr. Brunton points out, is not a rule without exception. There are many drugs which behave in unexpected ways; they no doubt, in the future, will be brought into harmony with laws of nature yet to be discovered. At present it is not possible to prophesy the physiological action of a chemical compound with [that mathematical accuracy which enables astronomers to foretell eclipses; pharmacology is yet, and perhaps always will be, an experimental science.

The lectures stand practically in the same condition as that in which they were delivered. A volume of equal size to that under consideration would have been necessary to include all the new work that has appeared in the last few years. The tuberculin of Koch; the importance of poisonous proteids, and the diminishing popularity of the ptomaines; the action of the intestinal epithelium (*vice* the liver) as the gatekeeper protecting the body from the entrance of albumose; the application of phagocytosis to the problems of disease, together with the views of the antiphagocytists—these are a few of the big questions that have come to the fore in the last three years, and it is only active pathologists who would be able to realize how much longer these lectures would have been if full reference had been made to all of them. The main facts, and the principal conclusions adduced by Dr. Brunton, will, however, still remain; and all those who read the lectures in the medical journals before will welcome their appearance in a more permanent form now, and to those who missed them in 1889 we can confidently recommend the book as one which will not only be interesting but also useful. W. D. H.

#### OUR BOOK SHELF.

*Elementary Hydrostatics.* By W. H. Besant, Sc.D., F.R.S. "Cambridge Mathematical Series." (Cambridge: Deighton, Bell, and Co., 1892.)

THE success this work has achieved will be gathered from the fact that this is the fifteenth edition, so that any further criticism on our part would be quite unnecessary. The brief snatches of historical matter, together with the lucid and simple explanations, all tend to stir up in the student an amount of interest which in the reading of many other works on this subject lies dormant. By a careful study of the illustrations, especially those relating to pumps, presses, &c., the beginner may gather much knowledge about the principles on which they are based. In this edition the text has undergone a careful revision, several alterations and additions having been made. A uniform system of units has been maintained throughout, and the chapters on the motions of fluids and on sound, which in previous editions were inserted among those on the equilibrium of fluids, have here been separated. The examples and problems at the termination of each chapter are as numerous as ever, a new edition of