electrical conductivity, apparatus and methods are described in chapters iii and iv. The rest of the volume is devoted to various applications of conductometric titration.

Since the author maintains that "the conductivity of solutions can often supply useful information which cannot always be easily obtained by other means", it may be anticipated that this clear and well-produced exposition of the subject will have an extensive circulation. If it be maintained that the methods advocated are suitable only for "pure research", it may be recalled that exactly the same remarks were probably made about *p*H determinations some twenty years ago. The determination of hydrogen ion concentration is, however, at least as frequently carried out to-day in industrial as in academic laboratories, and Dr. Britton's book should do much to bring about a similar extension of use for conductometric analysis. A. L. B.

(1) *Introductory Colloid Chemistry.* Pp. xiv+198. 15*s.* 6*d.* net. (2) *Laboratory Manual of Colloid Chemistry.* Third edition, rewritten and reset. Pp. xvii+229. 20*s.* net. By Prof. Harry N. Holmes. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1934.)

THE author's introductory text fulfils its claim to be a "short, clear, yet moderately comprehensive statement of the fundamentals of colloid chemistry". In fairly brief compass he has discussed the preparation and fundamental properties of various colloid systems, coagulation, froths and films, emulsions, gels and jellies, soaps, proteins, soils and clays, adsorption and catalysis. The value of the work is enhanced by a series of well-selected references.

The companion laboratory volume has now reached its third edition—a fact which testifies sufficiently well to its usefulness.

Laboratory manual and textbook are developed on closely parallel lines, and the manual is also enriched by a large number of references to the original literature.

The author has preserved his enthusiasms, and his presentation of his subject shows an admirable combination of freshness and conciseness. A. F.

Engineering

Elements of Water Supply Engineering. By Prof. E. L. Waterman. Pp. xv+302. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1934.) 21*s.* 6*d.* net.

THIS work is stated by its author, who is professor of sanitary engineering in the State University of Iowa, to be a textbook for students beginning their study of water supply engineering; he disclaims that it is in any sense a treatise or a handbook. He has based it on lectures which he himself delivers and it is designed to suit the particular need of his students. Viewed from this angle, the book fills a definite purpose in regard to which the author is naturally sole arbiter, and so, although the science of hydraulics is an essential element of water supply engineering, the theoretical side of the subject, with its fundamental laws, is excluded from consideration, as being adequately treated elsewhere, and, in the case of the author's students, being taken in a concurrent course.

Subject to these limitations, the volume forms a very useful introductory survey of American practice in water supply. In addition to the purely technical features (reservoirs, pipes, channels, intakes, pumps and pumping plant), the communal, sanitary, chemical and financial aspects of the matter are dealt with. As the purview of the work is confined to the North American continent, it contains certain things which present some degree of strangeness and novelty to English engineers. For example, the *per capita* consumption of water in the leading cities of the United States is startling when compared with the standards of Great Britain. One wonders what it can be used for and whether there is not excessive waste. Whatever be the explanation, it is certainly instructive to have the practice of other nationalities displayed for comparison and study, and English engineering students will find the book very helpful in this respect, as in others of a more general character. B. C.

The Blue Book 1935: the Directory and Handbook of the Electrical and Allied Industries. 53rd edition. Pp. xxviii+1436. (London: Benn Brothers, Ltd., 1935.) 25*s.* net.

THE fifty-third annual edition (1935) of the electrical trades directory and handbook will prove of value to everyone who wants to have the latest information about the activities of the electrical engineering profession and industry. In this edition more societies, associations and technical schools and colleges are included. Many physical constants connected with industry are given, and we were interested in an instructive page on telephone transmission units. The difference between the American standard line of cable and the English standard line is clearly explained and the decibel and neper are defined. Useful particulars are given about the Bureau of the International Communication Union. The grid scheme of the Central Electricity Board was completed last year, and grid tariffs for the whole of Great Britain, except south Scotland and north-east England, are in operation. In the manufacturing industry a fairly general and sustained improvement occurred during 1934. The output of electricity by supply undertakings increased 14 per cent compared with the previous year. The use of broadcasting and telephony has also greatly increased.

Wireless for the Man-in-the-Moon: Perhaps a Fairy Tale, Perhaps a Textbook, Perhaps Neither. By Coulombus and Decibel. Pp. 128. (London: George Newnes, Ltd., 1934.) 2*s.* 6*d.* net.

JOHN PERRY was wont to say that Euclid was fit reading only for the very learned. This work of 'Coulombus' and 'Decibel' falls, not necessarily for the same reasons, into the same category. If the man-in-the-moon is very learned he will take no