In general terms it covers a discussion of: (1) Such corporation and municipal activities as affect service and rates; (2) the trend of public opinion and court and commission decisions; and (3) the most important engineering and economic problems involved.

The work consists of 387 pages divided into sixteen chapters with appendices and index. Chapter 1 includes a definition of public utility and public rights. In Chapter 2 a distinction is made between product and service companies and between unit and flat rates. Chapters 3 and 4 are important in that they discuss various bases for rates, distinguishing between market value basis, investment basis and equivalent substitute basis.

Chapters 5 and 6, on valuation, are important and outstanding, for, after all, a rate can be fixed only after a valuation has been made. Chapters 7, 8 and 9 deal with the question of reasonable returns, including the much-discussed subject of depreciation and other indirectly related problems. These matters are dealt with at considerable length both in the abstract and in the concrete.

Chapters 10 to 16, inclusive, deal with the rates in connection with the following specific utilities: Railways, street and interurban railways, express transportation, water, gas, electricity and telephone.

Appendix "A" consists of tables giving probable approximate costs of brick buildings. Appendix "B," tables for sinking fund and present value computations. Appendix "C," life expectation tables for public utility properties. Appendix "D," typical citation abbreviations of law reports met with in utility decisions.

Although the nature of the studies presented demands essentially an engineering and economic analysis, an attempt has been made to keep the subject matter within the understanding of those not technically trained.

The author states that it is due to all those approaching the subject with an open mind to warn them that some of his opinions, while supported by the views of many eminent engineers, are not accepted by some others equally prominent. But the author is generous enough where such divergence exists to present both sides of the question, and the work will be found on the whole fair and temperate in tone. Complete agreement with all the author's views so fully set forth is not to be expected. To consulting engineers, public commissioners, company officials and to students of municipal affairs this volume seems destined to render a real service.

The Elements of Hydrology. By Adolph F. Meyer, C.E., Associate Professor of Hydraulic Engineering, University of Minnesota. Published by John Wiley & Sons, Inc., New York, and Chapman & Hall, Limited, London; Canadian selling agents, Renouf Publishing Co., Montreal. First edition, 1917. 487 pages (including index), 287 figures, 45 tables, 6 x 9 ins., cloth. Price, $4. (Reviewed by T. H. Hogg, A.M.Can.Soc.C.E., assistant hydraulic engineer, Ontario Hydro-Electric Power Commission, Toronto.)

This is the first treatise to treat the science of hydrology in a comprehensive manner. Many books have been published and innumerable articles dealing with specific phases of the subject, such as precipitation, run-off, evaporation, etc., but hitherto no one has attempted to correlate the available data and prepare a volume covering the principles of the subject.

Before reviewing the book it would be well to give the author's definition of the subject, "Hydrology is the science which treats of the phenomena of water in all its states; of the distribution and occurrence of water in the earth's atmosphere, on the earth's surface, and in the soil and rock strata, and of the relation of these phenomena to the life and activities of man."

Chapter 1 (introduction) is a preparatory chapter in which the limits and limitations of the subject of hydrology are treated.

Chapter 2, "The Atmosphere," discusses the temperature pressure and circulation of the atmosphere, describing the methods of measurement, winds, etc.

Chapter 3, "Water," describes the various states in which water occurs and their properties, taking up in turn, ice, steam and vapor, and discussing the physical laws governing change from one state to another.

Chapter 4, "Precipitation." This chapter takes up at some length its occurrence and distribution. A very good discussion of maximum precipitation on watersheds is included.

Chapter 5, "Evaporation from Water Surfaces." The author here tabulates the evaporation formulas in use and discusses very fully the data available from tests. The material is presented very clearly and the treatment is good.

Chapter 6, "Evaporation from Land Areas," covers the rate of evaporation as affected by temperature, relative humidity, vegetation, etc.

Chapter 7, "Transpiration, or the Process of Vaporization of Water from the Breathing Pores, or Stomata, of Leaf and Other Vegetable Surfaces." The effects of temperature, humidity, wind, light, etc., in transpiration are discussed and values to be used for transpiration losses are given.

Chapter 8. "Deep Seepage" is covered in a short discussion with references to Hazen's and Slichter's formulas.

Chapter 9, "Run-off," gives an extended treatment of this phase of the subject, treating it under the following headings: Surface flow, seepage flow, run-off from typical watersheds, floods due to rainfall and snowfall, and the effect of temperature and precipitation on winter and spring floods. Flood flow formulas are analyzed and data are given on some of the most severe floods. A short discussion is introduced on the low water flow of streams.

Chapter 10, "Stream Flow Data." In this chapter the methods of stream flow measurements are described, and a statement is given wherein stream flow data is published.

Chapter 11, "Supplementary Stream Flow Data." This chapter gives a synopsis of the author's method for computing run-off in considerable detail.

Chapter 12, "Modification of Stream Flow by Storage," treats the influence of storage on stream flow. Reference is made to reservoir sites, effectiveness of reservoir storage, storage for municipal purposes, irrigation, logging, navigation, flood prevention, and for power. The conflict of the various interests in conserving water for different purposes is discussed.

The above résumé gives some idea of the scope of the book. The volume is very well written and splendidly illustrated with good, live drawings and cannot be criticized from a typographical or literary standpoint. Since the science of hydrology is in its infancy, it follows that the available knowledge of the subject is essentially fragmentary and by no means exact. For this reason the subject is a difficult one to treat satisfactorily.