Engineering valuation of public utilities and factories

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ENGINEERING VALUATION
OF
PUBLIC UTILITIES
AND FACTORIES

BY

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PREFACE

The demand for information regarding the valuation of public utilities has been growing at a rapid rate during the last few years. The reason for it is not far to seek. Many states have put their public utilities in charge of Commissions appointed or elected for the purpose, and these commissions in many cases demand valuations of the properties when permission is asked to make a change in the rates, or to add to the securities for any purpose. Many corporations are even now having careful appraisals made of their property and are as carefully keeping them up to date in anticipation of the day when the public, through the proper channels, will demand changes in rates which will necessitate such appraisals.

These conditions have brought on an urgent demand for information as to methods of valuation which, as yet, has not been available. The author has attempted to supply a part of this demand with a book almost rudimentary, in order to show how simple are the elements going to make up valuation.

The subject is too large to be treated here in more than an elementary manner, and the writer has condensed much of the theory, expanding only those elements which seem to be most needed by engineers.

After a short discussion of value, the purposes of its determination, and directions for determining it, a valuable court opinion by Judge Savage of Maine has been given in full as embodying the best instructions for valuation that the writer has yet encountered. Following this is a large number of forms developed for the purpose of making more perfect inventories, and for assembling and classifying the data in proper order. Many of these forms have been reproduced photographically, by permission, from copies of those which have been developed and used by the Joint Engineering Staff of the Wisconsin Railroad Commission and the Wisconsin Tax Commission, to the engineer of which, Professor W. D. Pence, the author wishes to express his thanks for placing these at his disposal. Others have been devised by the writer.
as the result of upwards of fifteen years' experience. After a short chapter devoted to the cost of appraising a property, the value of Good Will and "Going Concern Value" are defined and discussed, and the opinions of Commissions, Courts, and individuals given at some length.

Much space is devoted to depreciation, as it is felt that engineers are more in doubt on this point than on any other question connected with valuation. Especial attention is called to methods suggested for calculating depreciation and to the compound interest tables for use in calculating sinking funds, present values, etc. This chapter is followed by one in which amortization is discussed, another on the handling of depreciation funds and a short chapter on appreciation.

Franchises are given considerable space, and a study of the court decisions quoted will, it is hoped, go far toward elucidating this very troublesome subject. Capitalization and control of public utilities are given short discussions, the whole being completed by quotations in full of some of the more important decisions of the courts, and the syllabuses of many others of only slightly less value.

No excuse is offered for the large number of quotations from court decisions and from other papers, scattered throughout the book, for it is a part of the plan, where possible, to fortify each statement with a judicial ruling. It has been the author's intention to bring together in one volume the gist of all important rulings bearing upon the subject of valuations, so that the layman may have access thereto and learn where they apply. There is a large amount of literature hidden away among the papers of the technical societies that bears directly on the subject, and a considerable amount of writing on appraisals will be found among the reports of the various commissions having control of public utilities. Abstracts from both of these sources have been used liberally. The author desires to express his acknowledgment to Mr. T. Commerford Martin for many valuable suggestions.

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HORATIO A. FOSTER.
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