

Statistical Societies or Associations; Non-Official or Semi-Official Statistical Agencies; System of Official Statistics; Principal Official Serial Statistical Publications.

An interesting and useful feature of the book is a biographical directory of the prominent statisticians (370 names) for all American nations except the United States. Appendix 1 is an excerpt from "The Economic Literature of Latin America," Harvard University Press. Appendix 2 is a report of the meeting of the statistical section of the Eighth American Scientific Congress, which was held in May, 1940.

This book is the first attempt to present a comprehensive account of what is going on statistically in North and South America. In view of the pressure of world events it is a timely document. It should at least serve to disseminate knowledge of the various statistical activities going on in the Western Hemisphere and to introduce important statisticians and statistical administrators in the hemisphere to each other.

S. S. WILKS

#### GLASS: THE MIRACLE MAKER

*Glass: The Miracle Maker.* By C. J. PHILLIPS, Corning Glass Works, Corning, N. Y. xii + 424 pp. 208 figures. 41 tables. New York: Pitman Publishing Corporation. 1941. \$4.50.

"GLASS: The Miracle Maker" occupies a unique position in the relatively small library of books that are related to this subject. It can be roughly classified in a position intermediate between the type of book designed for a reader of popular science material and that intended for the glass technologist. For the former individual, the author suggests that the more technical chapters on chemistry and mechanical and physical properties be omitted if so desired. However, exclusive of these chapters, certain of the nomenclature employed in the remaining portions may cause the lay reader of science subjects some difficulty. Even with the inclusion of the aforementioned technical material the book can scarcely be considered sufficient in scope for use as a text by the student of glass technology.

The author in the foreword states: "This book is intended primarily, but not exclusively, for the architect, the civil, mechanical, electrical or chemical engineer, the industrial designer, or other industrial execu-

tive—in short, for those who may see in glass a unique and versatile material, interesting in its own right, and full of unexplored possibilities for creating products and improving production methods."

For these individuals the book has been wisely divided into two sections. Part One, devoted to History and Technology, includes the following topics: The History and Present Status of Glass; The Chemistry of Glass dealing with its constitution, composition and chemical durability; Mechanical and Other Physical Properties of Glass, including elasticity, hardness, strength, thermal endurance, density, coefficient of expansion, heat conductivity, viscosity and electrical and optical properties; Materials Handling, covering methods of unloading, storage, weighing, mixing and charging the raw materials that constitute a glass batch; Fuels, Refractories, Furnaces and the Melting Process; The Principles of Glassworking, including glass blowing, the production of mold ware, tubes and rods, casting and lamp-working; Glassworking Machinery; Finishing, Annealing, Decoration and Inspection.

In Part Two the author devotes over 160 pages to Applications and discusses the multitude of uses found for glass in architecture and building construction, in the home, in electrical transmission and communication, in illumination, in manufacture and in science and research. The last chapter considers the utilization of fiber glass. It is this latter portion of the book that is unique in its excellent portrayal of the rôle played by glass in modern civilization.

One of the outstanding features in "Glass: The Miracle Maker" is to be found in the some 150 excellent photographic illustrations. Particularly outstanding are those depicting "offhand" glass blowing and the Steuben art glass collection. Each chapter is ended with a list of references for further studying the subjects. These features go toward fulfilling the hope of the author that his book will meet the needs of engineers and industrial designers. The glass technologist himself may find in it a source of not too highly technical, yet interesting and perhaps profitable information.

The format is particularly attractive and a book mark of fiber glass is appropriately enclosed.

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## REPORTS

### RESEARCHES AT MELLON INSTITUTE 1941-42

OUTSTANDING at Mellon Institute during the fiscal year ended February 28, 1942, has been the growth

of the industrial research staff to 205 fellows (from 187) and 150 fellowship assistants (from 114). The services of these scientists and engineers have been required on the 95 industrial fellowships in operation.