

its functions as set out under the act, modified only to the extent that an evolving economy changes the emphasis of its program. Succeeding commissioners followed very closely the pattern of conduct and operations set by Wright.

In the 1890's, in the course of providing the Aldrich Committee with the economic information requested for proposed tariff reform, Wright developed the Wholesale Price Index. When Congress in 1894, responding to the unemployment crisis brought on by the recession of 1893, asked the commissioner to "investigate and make report upon the effect of the use of machinery upon labor," it laid the groundwork for the Bureau's comprehensive, authoritative studies of productivity and productivity statistics.

During Royal Meeker's term as commissioner (1913-1920), Wesley Clair Mitchell was commissioned to study the Wholesale Price Index. The resulting report, "The Making and Using of Index Numbers," originally published as Bulletin 173 of the Bureau and reprinted several times (as Bulletins 284 and 656), has for nearly half a century been considered the classic work in index numbers.

Perhaps the outstanding development during Meeker's term of office was the creation of the Cost of Living Index. The outbreak of World War I created a heavy demand for war production and munitions. Consumer demand in industrial centers sent prices soaring. In order to determine what constituted an adequate wage for industrial workers in these cities, the Bureau of Labor Statistics, in cooperation with the Shipbuilding Wage Adjustment Board, investigated the cost of living in the more important industrial and shipbuilding cities and published indexes which have evolved into the current Consumer Price Index, undoubtedly the best-known and most widely used statistic published by the United States government. In a similar fashion, as the need arose, the BLS established productivity indexes, used today as guideposts in wage negotiations; employment and payroll statistics; and unemployment statistics, these last as an outgrowth of the Great Depression. With our entry into World War II and the imposition of wage controls by the War Labor Board and price controls by the Office of Price Administration, the role of the BLS in measuring price and wage levels assumed new importance.

The integrity of the Bureau of Labor Statistics has never been seriously questioned. Every Congressional investigation of the Bureau has resulted in heightened respect for it and its products.

Clague's description of the Bureau and its functioning is concise but thorough. Anyone who is interested in any aspect of labor statistics or in the operation of a truly objective government research organization would do well to read Clague's study.

JOHN M. FIRESTONE  
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City College, New York*

## Penicillin et al.

**Antibiotics.** DAVID GOTTLIEB and PAUL D. SHAW, Eds. Vol. 1, Mechanism of Action (xii + 785 pp., illus. \$39). Vol. 2, Biosynthesis (xii + 466 pp., illus. \$24). Springer-Verlag, New York, 1967.

"The idea for publishing these books on the mechanism of action and the biosynthesis of antibiotics was born of frustration in our attempts to keep abreast of the literature," the editors write. With the help of over 100 collaborators they have succeeded in collecting much of the existing information on more than 100 antibiotics and in presenting the information in a form acceptable for use by the novice as well as the expert. The coverage of most antibiotics is relatively complete, and most are evaluated by writers who have carried out some of the research summarized. The volumes are quite complete up until 1966-67.

The editors chose to include "any and all antibiotics about which information had been published. It was obvious . . . that such a compilation, integration, and analysis of information could never be complete unless scientific investigations ceased at the moment the last manuscript was submitted. . . . An addendum was therefore included at the end of the volume and left open for the addition of new information until the last pages of the regular articles had been printed." "The clinical and industrial aspects of antibiotics have not been emphasized" except in the case of penicillin, for which a chapter on behavior in vivo has been included. Although most of the contributors are staff members of laboratories located in the United States, there are also contributors from Japan, Italy, the U.S.S.R., Spain, Canada, Switzerland,

and England. Even with some modifications by the editors the contributions tend to be individualistic.

For about 90 percent of the antibiotics the treatment of most topics is more complete than any hitherto published. Some sections include information that has not been published before. Each section has a separate reference list, and the citations happily include the full titles of the literally hundreds of papers on several of the antibiotics.

The volumes suffer from the fact that they have been published at an awkward time in the history of certain antibiotics. This is especially true with respect to some antibiotics for which the importance of the mechanisms of action and the structure-activity relationships as far as clinical utility is concerned is just beginning to be assessed. Since much is yet to be discovered concerning the biogenesis of most of the antibiotics, we expect significant progress in the near future with respect to many of the subjects dealt with in volume 2, and the volume may soon be quite dated. On the other hand, some of the reviews, such as those in volume 1 that summarize work on antibiotics as inhibitors in vital processes in bacterial cells, should continue to be of use.

We can only hope that the editors are already hard at work preparing a second edition so that we will have available within the next four years similar volumes which include the many advances in research that have been reported since these two volumes went to the printer.

D. PERLMAN  
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University of Wisconsin, Madison*

## Books Received

**Addition Polymers: Formation and Characterization.** Derek A. Smith, Ed. Plenum, New York; Butterworth, London, 1968. viii + 492 pp., illus. \$22.

**Agricultural Origins and Dispersals.** The Domestication of Animals and Foodstuffs. Carl O. Sauer. MIT Press, Cambridge, ed. 2, 1969. xvi + 184 pp. + 4 plates. Cloth, \$7.50; paper, \$2.95.

**The Albuquerque Navajos.** William H. Hodge. University of Arizona Press, Tucson, 1969. viii + 76 pp., illus. Paper, \$4. Anthropological Papers of the University of Arizona, No. 11.

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(Continued on page 991)

## BOOKS RECEIVED

(Continued from page 943)

the Western Caribbean—the Bonacca Expedition, edited by Alexander R. McBirney; Other Papers on Florida and British Honduras, by Manuel N. Bass and Donald E. Cebulski. American Association of Petroleum Geologists, Tulsa, Okla., 1969. vi + 358 pp., illus. + 2 maps. \$21.

**Biological Membranes.** Robert M. Dowben, Ed. Little, Brown, Boston, 1969. xiv + 306 pp., illus. \$13.50.

**Biologie de l'Amérique Australe.** Vol. 4. Documents biogéographiques et écologiques. Delamare Deboutteville and Eduardo Rapoport, Eds. Editions du Centre National de la Recherche Scientifique, Paris, 1968. 482 pp., illus. + 10 plates. 120 F.

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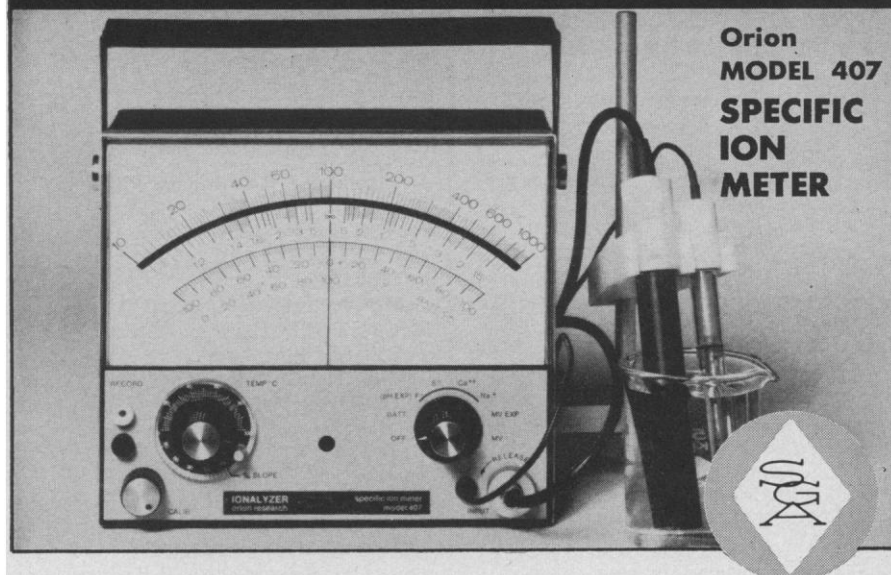
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**Foundations of Modern Physics.** Paul A. Tipler. Worth, New York, 1969. xiv + 530 pp., illus. \$11.50.

**Fundamentals of Mycology.** J. H. Bur-

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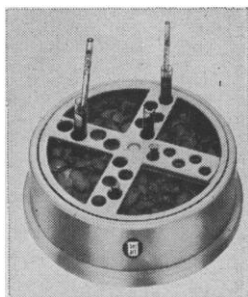
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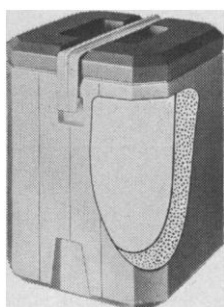
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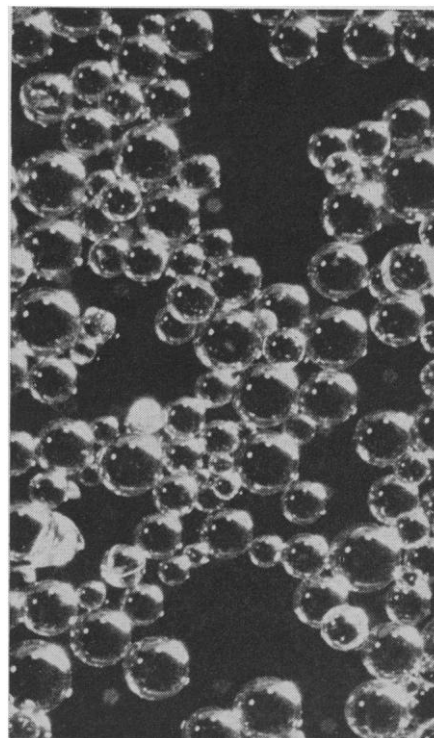
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**Textbook of Histology.** William F. Windle. McGraw-Hill, New York, ed. 4, 1969. xvi + 560 pp., illus. \$13.50.

**Textbook of Physiology and Biochemistry.** George H. Bell, J. Norman Davidson, and Harold Scarborough. Williams and Wilkins, Baltimore, ed. 7, 1968. viii + 1268 pp., illus. + plates. \$16.

**Topics in Nonlinear Physics.** Proceedings of the Physics Session, International School of Nonlinear Mathematics and Physics (NATO Advanced Study Institute), Munich, 1966. Norman J. Zabusky, Ed. Springer-Verlag, New York, 1968. xxxii + 728 pp., illus. \$13.50.

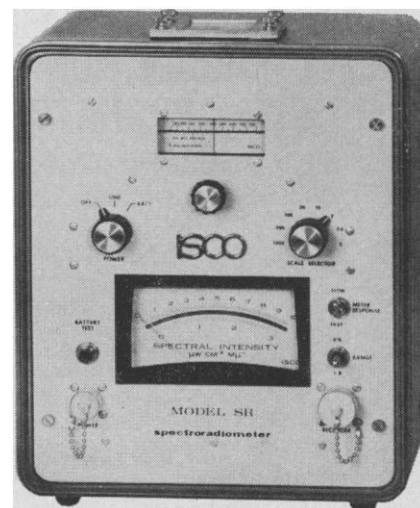
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**Transmission Lines for Digital and Communication Networks.** An Introduction to Transmission Lines, High-frequency and High-speed Pulse Characteristics and Applications. Richard E. Matick. McGraw-Hill, New York, 1969. xxiv + 360 pp., illus. \$14.50.

**Wissenschaftliche Abhandlungen.** Ludwig Boltzmann. Fritz Hasenöhrl, Ed. Vol. 1 (x + 652 pp., illus.); vol. 2 (vi + 596 pp., illus.); vol. 3 (viii + 706 pp., illus.). \$39.50. Reprint of the 1909 edition.

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