

The first 322 pages, with the exception of a chapter on pumping, deal with the design, construction, maintenance, and operation of sewers. This lengthy discussion of construction methods may make the book more worth while for practicing engineers but adds a great deal of material which may be considered extraneous in an undergraduate course in a modern college of engineering, where greater emphasis is placed upon the scientific principles underlying the practice of engineering. However, the wise teacher will find more than sufficient instructional matter in this book for a good undergraduate course in the collection, treatment, and disposal of sewage and industrial wastes.

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**Food Microbiology.** William Carroll Frazier. McGraw-Hill, New York, 1958. ix + 472 pp. Illus. \$9.

This up-to-date volume is designed, as the author indicates, to be used as a college textbook in the field of food microbiology. For this purpose, the book has merit. It is also a volume that many older workers in the field of food preservation and technology may find valuable as brush-up reading. It is a good digest of microbiology in fields related to the food industries.

Part 1 succinctly describes the microorganisms that are important in food microbiology. The photographs and illustrations dealing with molds, yeasts, and bacteria are of particular interest. In the latter chapters of this section microbiological contamination of food from handling, processing, and natural sources is covered.

Part 2 deals with the preservation of foods. While this text does not go quite far enough into some of the procedures mentioned, it meets the need for which it was designed and covers the field on most types of foods.

Part 3 deals adequately with spoilage of foods. It is readable, yet technical enough to fulfill its purpose. Again, the different foods are treated in separate chapters.

Foods and enzymes produced by microorganisms are described in Part 4 of the text. Culture production and specific food fermentations are also part of this section.

In Part 5 the author rather thoroughly discusses food poisonings and infections. A chapter on the investigation of food-poisoning outbreaks is included.

The sixth section of the book deals briefly with bacteriological aspects of plant sanitation, methods used in micro-

biological laboratories, and enforcement and control agencies.

The basic principles of food microbiology are adequately digested in this text. It certainly will not replace Tanner's *Microbiology of Foods* as a reference volume, but it should be a welcome modern addition to many classrooms and libraries.

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**Fellowships in the Arts and Sciences, 1959-60.** Virginia Bosch Potter. Fellowships in the Arts and Sciences, 79 Biochemistry Building, University of Wisconsin, Madison, ed. 2, 1959. viii + 195 pp. \$3.75.

This directory, a project of the Association of American Colleges with the cooperation of the Association of Graduate Schools in the Association of American Universities, was made possible through the aid of grants from the following groups: the Danforth Foundation, the Ford Foundation, the National Institutes of Health, the National Science Foundation, and the Rockefeller Foundation.

The directory offers descriptions of fellowships from private foundations, government agencies, professional societies, industry, and other sources outside the universities themselves. Fellowships are listed under the following headings: "Predoctoral"; "Postdoctoral"; "Senior, faculty and special awards"; "Study abroad"; "Summer study"; and "Loans." Subheadings under each of the sections include the following divisions: general, humanities, natural sciences, social sciences, brief listings, and a cross-reference list.

For each major fellowship program listed the following information is given: address of the group administering the awards; purpose; fields included; qualifications of the candidate; period of the award; stipend; other allowances; conditions; type of application; method of review; time schedule; and approximate number of awards.

## New Books

**Astronomy.** A textbook for university and college students. Robert H. Baker. Van Nostrand, Princeton, N.J., ed. 7, 1959. 555 pp. \$6.95.

**Basic Geology for Science and Engineering.** E. C. Dapples. Wiley, New York; Chapman & Hall, London, 1959. 616 pp. \$9.50.

**Cahiers de synthèse organique.** Méthodes et tableaux d'application. vol. 5, *Dégradations*. Léon Velluz, Masson, Paris, 1959. 394 pp.

**Dairy Cattle, Judging and Selection.** William W. Yapp. Wiley, New York; Chapman & Hall, London, 1959. 334 pp. \$5.95.

**Dynamics of Flight.** Stability and control. Bernard Etkin. Wiley, New York; Chapman & Hall, London, 1959. 533 pp. \$15.

**The Evolution of Living Things.** H. Graham Cannon. Thomas, Springfield, Ill., 1958. 190 pp. \$3.50.

**Fishes of the Great Lakes Region.** Bull. No. 26. Carl L. Hubbs and Karl F. Langler. Cranbrook Inst. of Science, Bloomfield Hills, Mich., rev. ed., 1958. 224 pp. \$5.

**A Guide to Nuclear Energy.** R. F. K. Belchem. Philosophical Library, New York, 1958. 84 pp. \$3.75.

**Liquid Helium.** K. R. Atkins. Cambridge Univ. Press, New York, 1959. 322 pp. \$11.

**Minnesota's Changing Geography.** John R. Borchert. Univ. of Minnesota Press, Minneapolis, 1959. 197 pp. \$4.25.

**Nomograms for Chemical Engineers.** O. P. Kharbanda. Academic Press, New York, 1958. 258 pp. \$15.

**Nutrition of the Legumes.** Proceedings of the University of Nottingham's fifth Easter school in agricultural science, 1958. E. G. Hallsworth, Ed. Academic Press, New York; Butterworths, London, 1958. 369 pp. \$10.50.

**Optical Properties of Semi-Conductors.** T. S. Moss. Academic Press, New York; Butterworths, London, 1959. 289 pp. \$9.

**Physiological Adaptation.** A symposium held during the meeting of the Society of General Physiologists at the Marine Biological Laboratory, Woods Hole, Mass., 5-6 September 1957. C. Ladd Prosser, Ed. American Physiological Soc., Washington, D.C., 1958. 185 pp. \$4.

**Radioactivity Measuring Instruments.** A guide to their construction and use. M. C. Nokes. Philosophical Library, New York, 1958. 83 pp. \$4.75.

**The Simplicity of Science.** Stanley D. Beck. Doubleday, Garden City, N.Y., 1959. 212 pp. \$3.75.

**Taschenbuch der Botanik.** vol. I, *Morphologie, Anatomie, Fortpflanzung, Entwicklungsgeschichte, Physiologie*; 291 pp.; \$3.05. vol. 2, *Sytematik*; 195 pp.; \$3.60. Walter Mevius. Thieme, Stuttgart, Germany, 1958 (order from Intercontinental Medical Book, New York 16).

**The Transvaal Ape-Man-Bearing Cave Deposits.** Memoir No. 11. C. K. Brain. Transvaal Museum, Pretoria, South Africa, 1958. 131 pp.

**Tree Fruit Production.** James S. Shoemaker and Benjamin J. E. Teskey. Wiley, New York; Chapman & Hall, London, 1959. 463 pp. \$6.95.

**Type Specimens of Marine Mollusca Described by P. P. Carpenter from the West Coast (San Diego to British Columbia).** Memoir 76. Katherine Van Winkle Palmer. Geological Soc. of America, New York 27, 1958. 384 pp.

**Umbelliferae of Japan.** Minosuke Hiroe and Lincoln Constance. Univ. of California Press, Berkeley, 1958. 144 pp. \$2.75.

**Virginity, Pre-Nuptial Rites and Rituals.** Ottokar Nemecek. Philosophical Library, New York, 1958. 137 pp. \$4.75.