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**Flotation.** *A. M. Gaudin.* McGraw-Hill Book Company, Inc., New York. Second edition, 1957. ix+573 pp. \$12.50.

The second edition of this book incorporates the most recent contributions to the art of flotation. A detailed scientific analysis of the separation of dissimilar solid particles by selective water-repellancy of their surfaces is made. The principles of surface chemistry and their application to problems of mineral beneficiation are given an extensive treatment. Fluid mechanics is applied to the movement of fine solid particles and gas bubbles through liquids. The industrial applications of the flotation process are covered in considerable detail. The author has succeeded in presenting an excellent scientific and engineering analysis of the flotation process. Unsolved problems, controversial issues, and current and planned research are covered. The treatment is too advanced for the average undergraduate engineer; however, it is recommended as a text for graduate students specializing in Mining Engineering, Mineral Dressing, or Metallurgical Engineering. It should be a reference book for all scientists and engineers concerned with mineral beneficiation.

GEORGE R. ST. PIERRE

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**Geologic Field Methods.** *Julian W. Low.* Harper & Brothers, Publishers, New York. 1957. xv + 489 pp., 214 figs., 11 tables. Professional edition \$6.00; Text edition \$4.50.

All who know of Mr. Low's excellent manual, *Plane Table Mapping*, will welcome this companion volume, in the preparation of which both the author and the publisher have exercised the same careful attention to content and details of presentation that made the earlier book so famous. Mr. Low has followed a sound philosophy in determining the organization and content of this book. It is not a manual or compendium of geology, but is a manual of effective and reliable field methods. It is designed to help either student or practicing geologists to gather data that will constitute a sound basis for laboratory work and analysis and interpretation in the office. In its details it is encyclopedic. Major topics included, by chapters, are 1) Introduction to surface geological investigations; 2) Organization of field work; 3) Living and working out of doors; 4) Field mapping; 5) Topography and areal geology; 6) Structural field work; 7) Stratigraphic field work; 8) Mineral exploration; 9) Subsurface methods; and 10) Geologic illustrations. Chapter 4 is apparently condensed from parts of Chapters 2 and 3 of the earlier work. However, the two works are clearly complementary and neither is in any sense a substitute for the other.

The professional edition is printed on slightly better paper and has a water-resistant cover; nevertheless, the text edition is of virtually the same quality.

MALCOLM P. WEISS

**Reason and Chance in Scientific Discovery.** *R. Taton* (Translated by A. J. Pomerans) Philosophical Library, Inc., New York, 1957. 171 pp. \$10.00.

This is a most refreshing series of philosophical essays and anecdotes on discoveries accomplished by some famous scientists. Excepting page 163, the term "research" is conspicuously rare, and thus is consistent with the truism: The people who say the most about "research" are the ones who know the least about it.

The author's popularity will not be very great among persons who believe that "push-button research" can be "augmented, expedited and integrated" through "team (group effort)" and "brainstorming (idea) sessions" by "pressurizing" individuals who are not competent in the first place. The book contains recurrent evidence of individual ingenuity, coupled with the inference that all men are not endowed with inherent ability and no amount of schooling can give it to them.

The book is divided into three parts: (1) the different domains of discovery, (2) the factors involved in discovery, and (3) the various aspects of discovery. The 32 plates add to an attractive format, but the price, unfortunately, may reduce its circulation.

DUNCAN MCCONNELL

**Atomic Energy in Agriculture.** *William E. Dick.* Philosophical Library, Inc., New York. 1957. xi + 150 pp. \$6.00.

The voluminous literature on atomic energy often immeshes the ordinary individual who is interested in current scientific progress in a maze of technical details. It is gratifying to encounter a book such as this where the basic research in a particular area has been abstracted and is presented to the reader along with only such pertinent data as are necessary for clarity. Mostly it is a synopsis of the reports at the 1955 Geneva Conference on peaceful uses of atomic energy. There is no note of finality, but rather an attempt to show the various and peculiar ways in which atomic energy is emerging as a useful tool in agriculture with all its ramifications. The brief historical aspects of the various problems merely serve to illuminate the significance of the recent advances. The chapters that deal with radiation effects on genetics, pest control and food preservation are intriguing in the light of predicted, future agricultural economics. Problems exposed in these areas and in forestry, merit examination by the agricultural researcher because many require final solution. Two chapters on tracer work in photosynthesis and mineral movements in the plant complete this reference work.

CLARENCE E. TAFT

#### BOOKS RECEIVED BY BOOK REVIEW EDITOR FOR NOTICE OR REVIEW

##### *Date Rec'd.*

- 7/ 8/56 GEOLOGY AND OURSELVES. F. H. Edmunds. Philosophical Library, N. Y. 1956. 256 pp. \$10.00.
- 1/ 2/57 THE LEIBNIZ-CLARKE CORRESPONDENCE. H. G. Alexander, Editor. Philosophical Library, N. Y. 1956. lvi+200 pp. \$4.75.
- 1/18 57 FUNDAMENTALS OF HORTICULTURE. J. B. Edmond, A. M. Musser, and F. S. Andrews. McGraw-Hill Book Co., Inc., N. Y. 2nd Edition. xiii+456 pp. \$6.75.
- 1/30/57 MODERN INTRODUCTORY PHYSICS. Ira M. Freeman. McGraw-Hill Book Co., Inc., N. Y. 2nd Edition. vii+497 pp. \$6.00.
- 2/14/57 HEAT AND THERMODYNAMICS. Mark W. Zemansky. McGraw-Hill Book Co., Inc., N. Y. 4th Edition. xi+484 pp. \$7.50.
- 3/ 4/57 FLOTATION. A. M. Gaudin. McGraw-Hill Book Co., Inc., N. Y. 2nd Edition. x+573 pp. \$12.50.
- 3/ 8/57 THE ROAD TO INNER FREEDOM: THE ETHICS. Baruch Spinoza. The Elwes Translation, Changed, Revised and Edited by Dagobert D. Runes. Philosophical Library, N. Y. 215 pp. \$3.00.
- 3/11/57 PHILOSOPHY OF SCIENCE. Philipp Frank. Prentice-Hall, Inc., Englewood Cliffs, N. J. xxii+394 pp. \$7.65.
- 8/18/57 FOUNDATIONS OF RADIO. M. G. Scroggie. Philosophical Library, N. Y. 349 pp. \$10.00.
- 3/11/57 BUILDING AN ENGINEERING CAREER. Clement C. Williams and Erich Erich A. Farber. McGraw-Hill Book Co., N. Y.
- 3/26/57 A NATURALIST IN PALESTINE. Victor Howells. Philosophical Library, N. Y. 180 pp. \$6.00.
- 4/26/57 A SHORT DICTIONARY OF MATHEMATICS. C. H. McDowell. Philosophical Library, N. Y. xiii+63 pp. \$2.75.
- 4/30/57 INTRODUCTION TO CHEMISTRY. Joseph C. Muhler, Charles S. Rohrer, and Ernest E. Campaine. Prentice-Hall, Inc., Englewood Cliffs, N. Y. viii+452 pp. \$6.75.