

If the discussions on animal spirits, which Mayow identified with his nitro-aërial particles, are less suggestive to-day, they are none the less interesting as a record of contemporary chemical and physiological progress. As a specimen of these early views the following quotation is of interest: "If the stomach be quite empty of food, its internal membranes are, as is probable, pinched by the nitro-aërial particles, and hunger seems to arise from this."

It is a pleasure to have a thoroughly readable English translation of these classic papers by Mayow. They can be recommended as entertaining specimens of scientific imagination and critical acumen, as well as striking illustrations of an appreciation of the experimental method long before the modern period of discovery in chemistry.

LAFAYETTE B. MENDEL.

**Descriptive Biochemie mit besonderer Berücksichtigung der chemischen Arbeitsmethoden.**

By DR. SIGMUND FRÄNKEL. Dozent f. med. Chemie an der Wiener Universität, Wiesbaden: J. F. Bergmann. 1907. pp. 639. Price, 17 Marks.

This book contains a description of the substances occurring in the animal body together with the methods for their isolation, their synthesis, and their quantitative determination and also their degradation products. Special chapters are devoted to the ferments and to the chemistry of the organs, secretions and excretions. The book is intended to serve as an aid to workers in physiological chemistry. In the preparation of the book, the literature up to the end of the year 1907 was consulted and numerous citations are made.

The facts of physiological chemistry are given in the book in the most compact sort of way but not to the detriment of the subject. Some exception, however, may be taken to the very free use made of abbreviations of names of common things which will require the reader to learn quite a number of abbreviations devised by Fränkel himself. In some parts of the book there appears evidence of haste in the preparation of the manuscript as shown by inaccuracies of statement and incorrect formulas. The book contains a vast amount of valuable information brought up to practically the latest date, and is a rich mine to physiological chemists.

JOHN MARSHALL.

**Studies in Plant and Organic Chemistry and Literary Papers.** By HELEN ABBOTT MICHAEL (Helen C. DeS. Abbott), with Biographical Sketch. Cambridge, Mass.: The Riverside Press. One vol., pp. 423. 1907. Price, \$2.50 net.

Although the subject of this appreciation had a "genius" for music she deserted it to study Helmholtz's work on optics. From physics her "interest ran to zoology and the dissecting of animals." Next she enters a medical college and passes "the first year's examination in chemistry, anatomy and physiology with a record of one hundred in