III. Derivatives of flavone (phenylpheno-γ-pyrone).—Chrysin, tectochrysin, apigenin, acacetin, luteolin, quercetin, rhamnetin, isorhamnetin, rhamnazin, fisetin and derivatives, morin, myricetin, kæmpferid, galangin, lotoflavine.

The volume concludes with an alphabetical table of the coloring matters and their derivatives, giving the name of the compound, its melting point, and the reference to the page of the text where the same may be found described in detail, thus constituting an excellent index.

The book presents an able review of a field which is frequently unjustly slighted in the larger text-books. It can be heartily commended to those interested in this branch of organic chemistry.

MARSTON TAYLOR BOGERT.

Pflanzenphysiologie. Ein Handbuch der Lehre vom Stoffwechsel und Kraftwechsel in der Pflanze. Von DR. W. PFEFFER. II. Kraftwechsel. Zweite vollig umgearbeitete Auflage. Leipzig, Wm. Engelmann. 1901. Pp. 353.

The first volume of this comprehensive work appeared in 1897 and was reviewed by the writer of this note in SCIENCE (7 : 318. 1898). The recent part deals with the general action of growth, and the influence of various factors upon it, the inherent causes of specific form, variation and heredity, rhythm and resistance.

The commendation given the first volume of this splendid work seems equally well deserved by the second. The citations of literature are quite inclusive up to 1900, and many of the more important papers appearing since that time are given, although not much time could have been given to a consideration of their contents.

It is to be said that the author has not had so much critical editorial work before him in the preparation of the present part as in the first volume, since the greater number of principles discussed are in the form in which they have been accepted for a decade. Much of the material rests exactly as it was left by Pfeffer's lengthy papers of a few years since upon transformations of energy, and in other sections the subject matter has remained almost undisturbed since the first edition of the book.

Some of the phases of the activity of the plant discussed do not appear to have been carried to the extent that might be reasonably expected from a work of this character. Thus in dealing with the influence of light upon plants, the author has not followed to a logical conclusion the discussions foreshadowed in the preface.

The influence of water content upon growth and form, correlation, reproduction and regeneration comes in for a well-conceived treatment, and the pages devoted to these topics are valuable additions to literature.

The first volume has already been translated by Dr. Ewart in a manner adding much to its scientific and practical value, and it is to be hoped that he will be as speedy and attentive in editing the present volume. An unusually large number of typographical errors will doubtless be reduced to a minimum in the process.

The fulness of discussions, exactness and pertinence of citations, together with the grasp of the subject and breadth of view of the author, make this book very easily the greatest work yet produced on plant physiology, and in the historical development of the subject it will prove to be as valuable as the notable volume of Sachs.

D. T. MACDOUGAL.

SCIENTIFIC JOURNALS AND ARTICLES.

THE October (closing) number of Volume 2 of the *Transactions of the American Mathematical Society* contains the following papers: 'Geometry of a Simultaneous System of Two Linear Homogeneous Differential Equations of the Second Order,' by E. J. Wilczynski; 'Theory of Linear Groups in an Arbitrary Field,' by L. E. Dickson; 'On Certain Aggregates of Determinant Minors,' by W. H. Metzler; 'Ueber die Anwendung der Cauchy'schen Multiplicationsregel auf bedingt convergente order divergente Reihen,' by A. Pringsheim; 'Ueber den Goursat'schen Beweis des Cauchy'schen Integralsatzes,' by A. Pringsheim; 'New Proof of a Theorem of Osgood's in the Calculus of Variations,' by O. Bolza; 'On Certain Pairs of Transcendental Functions whose Roots Separate each other,' by M. Bôcher; 'On the System of a Binary Cubic and a Quadratic and the