

SCIENCE

VOL. 80

FRIDAY, AUGUST 3, 1934

No. 2066

Research and Adjustment March Together: HENRY A. WALLACE 105

Work of the American Museum of Natural History: FREDERICK TRUBEE DAVISON 106

Obituary:

Nathaniel Lord Britton: DR. HENRY H. RUSBY.
Recent Deaths 108

Scientific Events:

The Radcliffe Observatory; The New York Post-Graduate Medical School; Dedication of the Mountain Lake Biological Station; Honorary Degrees at the University of Wisconsin 111

Scientific Notes and News 114

Discussion:

How Some Birds Satisfy Thirst: H. A. ALLARD.
Selenite not a Certain Indicator of Wind Effect: WALTER B. LANG. *On a Whale Skeleton in the Collections of the California Academy of Sciences:* M. E. DAVIDSON. *A New Mammoth Record for Illinois:* FRANK C. BAKER 116

The Fifteenth Annual Meeting of the American Geophysical Union: DR. JNO. A. FLEMING 119

Scientific Apparatus and Laboratory Methods:

A Simple Agitator for Submerged Respirometers: DR. H. SPECHT. *A Stain for Difficult Plant Material:* PALMER STOCKWELL. *Micro Mounts, Reverse and Converse:* PROFESSOR ARTHUR PAUL JACOT 121

Special Articles:

Spontaneous Encephalomyelitis of Mice—A New Virus Disease: MAX THEILER. *Respiratory Types and Photoperiodism:* PROFESSOR R. H. ROBERTS and JAMES E. KRAUS. *Linear and Dendritic Sink-hole Patterns in Southeastern New Mexico:* DR. FRANK A. MELTON 122

Science News 8

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKEEN CATTELL and published every Friday by

THE SCIENCE PRESS

New York City: Grand Central Terminal

Lancaster, Pa.

Garrison, N. Y.

Annual Subscription, \$6.00

Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

RESEARCH AND ADJUSTMENT MARCH TOGETHER

By HENRY A. WALLACE

SECRETARY OF AGRICULTURE

THERE is supposed to be a conflict between agricultural science and the need to adjust agricultural production. Agricultural science enables farmers to increase crop yields per acre and increase the output of meat and milk per unit of feed consumed. As the users of agricultural improvements increase in number, output increases until prices fall. How can all this be reconciled with the need to make supply and demand balance?

This is an old puzzle, but often solved. Again and again people bring it forward as if the solution were unknown. With an air of drawing attention to an unperceived anomaly, a newspaper writer recently declared himself amazed that the technical branches of the U. S. Department of Agriculture should oper-

ate at full blast to perfect crop and livestock production, while the Adjustment Administration labored simultaneously to cut down the production of cotton, wheat, corn, hogs, tobacco and other products. Here, he said, we have futility on a scale worthy of a Greek tragedy.

What would happen were farmers to abandon science or even to use it with greatly decreased efficiency? They would have to continue plowing, sowing and reaping. But they would use poor machinery, poor technique and poor seed. They would allow pests and diseases to ravage their crops and would harvest inefficiently what remained. By so doing, they would certainly reduce the output. But they would do so at a cost ruinous to themselves. They

New McGraw-Hill Books

Colloid Chemistry

By ARTHUR W. THOMAS, Professor of Chemistry, Columbia University. *International Chemical Series*. Ready in August

A clear, logical, and thoroughly up-to-date treatment which attempts, as far as possible, to account for colloid interactions on a simple crystalloid basis. The text embraces the bio-colloids as well as inorganic dispersions. Everyday techniques are carefully reviewed; chapters on soaps and carbohydrate colloids are included; and proteins and emulsions are fully covered.

Identification of the Commercial Timbers of the United States

By HARRY P. BROWN, Professor of Wood Technology, and ALEXIS J. PANSHIN, Research Assistant, New York State College of Forestry, Syracuse University. *American Forestry Series*. 217 pages, 6×9, illustrated, \$3.00

Presents information which will enable the student to identify the commercial timbers of the United States by (1) characters visible to the naked eye and with the hand lens, and by (2) minute characters. The text contains separate illustrated keys based on gross and minute features, as well as descriptions of the woods by species.

The Physical Basis of Things

By JOHN A. ELDRIDGE, Professor of Physics, University of Iowa. *International Series in Physics*. Ready in August

A picture of the physical world as seen by the modern physicist. The book explains, with emphasis on concrete illustration, the meaning of the ideas which, evolving from the older kinetic theory, have culminated in the new atomic theory of today.

Prospecting for Gold and Silver

By EROS M. SAVAGE, Mining Engineer. 307 pages, 4½×7, flexible, illustrated. \$2.50

All phases of prospecting are covered in this simple, practical new book. Concise explanations are given of mining facts, field methods, and the procedures required in locating, staking, and operating a mine. Elements of mineralogy and petrology, surveying, camping, mining law, etc., are also dealt with. The treatment is particularly suitable for elementary courses.

The Breeding and Improvement of Farm Animals. *New second edition*

By VICTOR ARTHUR RICE, Professor of Animal Husbandry in the Massachusetts State College. *McGraw-Hill Publications in the Agricultural and Botanical Sciences*. 516 pages, 6×9, illustrated. \$4.00

Brings out clearly the application of genetics and reproductive physiology to practical animal breeding. The revision includes new material covering advances in endocrine control of sex manifestations, artificial induction of mutations, cytological demonstration of crossing over, etc.

Send for copies on approval

McGRAW - HILL BOOK COMPANY, INC.

330 West 42nd Street, New York

Aldwych House, London, W.C.2.