

Sanford in his peach tree would act as a stimulant to the tree as in other work upon the effects of fumigating greenhouse plants with hydrocyanic acid evidence has been obtained of stimulation, the results of which will be published later.

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THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE
SECTION B, PHYSICS

By combining their interests Section B of the American Association for the Advancement of Science and the American Physical Society always have exceedingly profitable joint meetings; meetings at which nearly all the progressive physicists of the States and of Canada become personally acquainted and from which they return to their respective laboratories taking with them the inspiration of new ideas and the cheer of many friendships.

The recent Philadelphia meeting, at which President Ernest Merritt of the American Physical Society and Vice-president Anthony Zeleny of the American Association for the Advancement of Science alternately presided, was typical of these delightful and helpful occasions.

The address of the retiring vice-president and chairman of Section B, Dr. A. D. Cole, was on "Recent Evidence for the Existence of the Nucleus Atom."

The structure of the atom has been and still is the goal of modern physical investigation. Possibly it may never be attained, but the failure to attain it should not be regretted so long as endeavors to this end continue to yield, as heretofore, such valuable incidental discoveries. Dr. Cole's address, published in full in the January 15 issue of SCIENCE, reviews a number of the more recent of these discoveries, and also gives references to many original papers. Both addresses and references will be of great assistance to every physicist who really

is interested, whether actively or passively, in that baffling yet enticing subject, the structure of the atom.

The usual symposium consisted, at this meeting, of addresses on "The Use of Dimensional Equations," by Dr. Edgar Buckingham and Dr. A. C. Lunn, followed by discussions by Dr. W. S. Franklin, Dr. A. G. Webster, and others.

Dr. Buckingham's address, following somewhat his paper in the October, 1914, issue of the *Physical Review*, emphasized the practical use of dimensional equations in the logical or mathematical discussion of physical problems.

Dr. Lunn considered the mathematical and metaphysical aspects of the subject, and so interestingly that it is to be hoped that he too will publish in full his contributions to this subject.

The discussion and remarks that followed the principal papers indicated a recognition of the importance of the subject, but also a frank admission that its daily use in the laboratory and the classroom is, perhaps, rather limited.

The sectional committee nominated, and the general committee later elected, Professor Frederick Slate vice-president and chairman of Section B. Professor Slate, however, was unable to serve and a new election therefore was necessary. This was completed at the April meeting of the Council, resulting in the selection of Dr. E. P. Lewis, of the University of California.

At present the officers of Section B are as follows:

Vice-president and Chairman of the Section, E. Percival Lewis, University of California, Berkeley, Cal.

Secretary, William J. Humphreys, Weather Bureau, Washington, D. C.

Member of Council, Gordon F. Hull, Dartmouth College, Hanover, N. H.

Sectional Committee, Vice-president, Philadelphia, Anthony Zeleny; Vice-president, San Francisco and Columbus, E. Percival Lewis;

Secretary, William J. Humphreys, Weather Secretary, Alfred D. Cole; Anthony Zeleny, 1 year; T. C. Mendenhall, 2 years; Dayton C. Miller, 3 years; George W. Stewart, 4 years;

Robert R. Tatnall, 5 years. Ex-officio: Ernest Merritt, President, American Physical Society; Alfred D. Cole, Secretary, American Physical Society.

Member of General Committee, R. A. Millikan, Chicago.

W. J. HUMPHREYS,
Secretary, Section B

NEW ORLEANS MEETING—AMERICAN CHEMICAL SOCIETY

TITLES AND ABSTRACTS OF PAPERS

OPENING address by A. D. Little, "The Industrial Resources and Opportunities of the South."
CHARLES S. ASH: *Contributions of the Chemist to the Wine Industry.*

J. B. F. HERRESHOFF: *Contributions of the Chemist to the Copper Industry.*

E. T. BEDFORD: *Contributions of the Chemist to the Corn Products Industry.*

JAMES LEWIS RAKE: *Contributions of the Chemist to the Asphalt Industry.*

DAVID WESSON: *Contributions of the Chemist to the Cotton-seed Oil Industry.*

G. S. BROWN: *Contributions of the Chemist to the Cement Industry.*

W. D. HORNE: *Contributions of the Chemist to the Sugar Industry.*

SIDNEY MASON: *Contributions of the Chemist to the Incandescent Gas Mantle Industry.*

FRANKLIN W. HOBBS: *Contributions of the Chemist to the Textile Industry.*

H. WALKER WALLACE: *Contributions of the Chemist to the Fertilizer Industry.*

F. R. HAZARD: *Contributions of the Chemist to the Soda Industry.*

WILLIAM H. TEAS: *Contributions of the Chemist to the Leather Industry.*

JOHN A. WESENER and GEORGE L. TELLER: *Contributions of the Chemist to the Flour Industry.*

GASTON D. THEVENOT: *Contributions of the Chemist to the Brewing Industry.*

R. I. BENTLEY: *Contributions of the Chemist to the Preserved Foods Industry.*

WM. P. MASON: *Contributions of the Chemist to the Potable Water Industry.*

R. C. SCHUPPHAUS: *Contributions of the Chemist to the Celluloid and Nitrocellulose Industry.*

A. A. HOUGHTON: *Contributions of the Chemist to the Glass Industry.*

F. L. MOORE: *Contributions of the Chemist to the Pulp and Paper Industry.*

Public address to the people of New Orleans, by

Bernhard C. Hesse, "The Chemists' Contribution to the Industrial Development of the United States—A Record of Achievement."

The above papers have been printed in full in the April issue of the *Journal of Industrial and Engineering Chemistry*.

DIVISION OF AGRICULTURE AND FOOD CHEMISTRY
Floyd W. Robinson, chairman

Glen F. Mason, secretary

E. H. S. BAILEY and W. S. LONG: *On the Composition of the Seeds of Martynia Louisiana (Unicorn or Devil's Claws).*

This plant, which grows wild through the central west and especially in the dry climate of western Kansas, Colorado and New Mexico, has been investigated with reference to utilizing the oil contained in the seed. It has been found that this seed contains over sixty per cent. of a bland oil, 24.21 per cent. of protein and 4.55 per cent. of starch. An examination of the oil shows that it compares favorably with some edible oils, especially cotton-seed oil. The authors suggest that since the plant is so well adapted to a dry climate, experiments should be made to determine whether it may not be profitably cultivated as an oil-bearing plant.

EDWARD GUDEMAN: *Action of Milk on Colloids.*

W. D. BIGELOW and F. F. FITZGERALD: *The Relation of the Refraction, Specific Gravity and Solids in Tomatoes and Tomato Pulp.*

As a result of the examination of a considerable number of fresh and canned tomatoes, and of pulps made up under known conditions, tables have been constructed to facilitate analytical work. The generalizations given below are within the limits of analytical error. The filtrate referred to is obtained by throwing a sample of tomato pulp, or crushed tomato product, on a folded filter. Raw tomatoes should be cooked previously in a reflux condenser. The solids are determined by drying in vacuo at 70° and under atmospheric pressure at the temperature of boiling water.

Solids of pulp in vacuo = solids of pulp at atmospheric pressure $\times 1.085$,

Solids of pulp in vacuo = solids of filtrate in vacuo $\times 1.125$,

Solids of filtrate in vacuo = solids of filtrate at atmospheric pressure $\times 1.12$.

From the specific gravity of the filtered liquid at 20° C., the per cent. of solids of the pulp (not of the filtrate) may be ascertained from the Windish wine table.¹ The figure 0.05 should be de-

¹ Table V., Bull. 107, Bureau of Chem.