SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, AUGUST 5, 1904.

CONTENTS:

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

THE STATE UNIVERSITY AND RESEARCH.*

IT is the privilege of the private school, the denominational institution and the independent university to select the phases of education to which they shall devote themselves; but the appropriate sphere of a state system of education is predetermined by the inherent relations which the state sustains. The function of all state institutions is the welfare of the commonwealth. By first intention, the state is not concerned with the individual, but with the aggregate body of its citizens. The state must necessarily deal with individuals, but rather as integers of the aggregate body than *as* individuals. State education, therefore, in the strictest construction, and in the highest ideal, is the education of the aggregate body that forms the commonwealth. Education from the view-point of other institutions may deal primarily with the individual, and only secondarily with the aggregate. State education deals primarily with the aggregate, and only incidentally with the individual as a constituent of the aggregate. Obviously I am defining the ideal rather than the actual fact of practice; rather of the goal to be at length attained than any present achievement.

In its earliest stages, formal education seems to have been altogether individual. Gradually it grew to be the privilege of select classes, and at length, but only at a late day and among the foremost peoples, it has come to be a possibility for all.

* One of the two convocation addresses given on the occasion of the semicentennial jubilee of the University of Wisconsin.

make the tables valuable for short courses or for field work. A. J. Moses.

SCIENTIFIC JOURNALS AND ARTICLES.

The July number (volume 5, number 3) of the *Transactions* of the American Mathematical Society contains the following papers:

E. B. Van Vleck: 'The convergence of algebraic continued fractions whose coefficients have limiting values.'

W. Findlay: 'The Sylow subgroups of the symmetric group.'

E. W. Brown: 'On the smaller perturbations of the lunar arguments.'

E. V. Huntington: 'Sets of independent postulates for the algebra of logic.'

H. F. Blichfeldt: 'On the order of linear homogeneous groups (second paper).'

J. B. Shaw: 'Algebras defined by finite groups.'

O. Veblen: 'A system of axioms for geometry.'

The contents of the *American Journal of Science* for July are as follows:

B. B. Boltwood: 'Ratio of Radium to Uranium in some Minerals.'

F. M. McClenahan: 'Constitution of Hydrous Thallic Chloride.'

E. H. Sellards: 'Study of the Structure of Paleozoic Cockroaches, with Descriptions of New Forms from the Coal Measures.'

W. A. Parks: 'Remarkable Parasite from the Devonian Rocks of the Hudson Bay Slope.'

C. R. Eastman: 'Asterolepid Appendages.'

A. B. Plowman: 'Electrotropism of Roots.'

O. C. Lester: 'Oxygen Absorption Bands of the Solar Spectrum.'

The Journal of Nervous and Mental Diseases of July, 1904, contains two articles dealing with Multiple Sclerosis, one by Drs. W. G. Spiller and C. D. Camp of Philadelphia containing a report of two cases and some general observations on the nature of the condition, and the other by Dr. Smith Ely Jelliffe, of New York, on the occurrence and etiology of multiple sclerosis, as observed since the opening of the Neurological Department in the Vanderbilt Clinic of New York City. The interesting fact is brought out that this disease is less frequent than in foreign countries. There is also a discussion of Uremic Hemiplegia, by Dr. T. H. Weisenburg, of Philadelphia, in which he gives reports of several cases, and the results of various experiments. The Periscope contains extended abstracts from *The American Journal of Insanity, Revue de Psychiatrie and Nouvelle Iconographie de la Salpêtrière,* as well as miscellany and reviews of the latest psychiatrical and neurological books, published in this country and abroad.

SOCIETIES AND ACADEMIES.

THE AMERICAN CHEMICAL SOCIETY.

NEW YORK SECTION.

At the last meeting of the season, held June 10, at the Chemists' Club, 108 West 55th Street, the section elected as officers for the ensuing year:

Chairman—Wm. Jay Schieffelin.

Vice-Chairman—F. D. Dodge.

Secretary-Treasurer—F. H. Pough.

Additional Members of Executive Committee—E. H. Miller, M. T. Bogert, Wm. McMurtrie and T. J. Parker.

The following papers were read:

Alloys (Illustrated): William Campbell.

This paper gave the results obtained in a continuation of the work reported at the January meeting. The work will appear in full in an early number of the *Journal of the American Chemical Society.*

The Optical Rotation of Some Cyclic Compounds: F. D. Dodge.

Dr. Dodge called attention to the fact that many of the constituents of the volatile oils contain ring-nuclei of three, four, five or six atoms, with varying degrees of saturation. These compounds are most frequently asymmetric; which is shown by the optical activity.

The questions as to how far the observed rotation phenomena are in harmony with the formulæ which have been proposed, and as to whether the van't Hoff hypothesis is universally applicable, were discussed. It is shown that in single ring nuclei, racemism is generally theoretically possible, and often observed. In the cases of some double nuclei (as the camphor group) racemism appears to be impossible owing to the peculiar molecular structure. The exceptional optical properties of *menthone* were discussed, and a possible explanation found in a peculiar isomerism