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PROGRESS AND PROSPECTS IN CHEMOTHERAPY¹

In the mind of every physiologist visiting Toronto to-day one recent advance in our science will certainly be uppermost. We rejoice with our colleagues here in a great achievement which has opened new vistas of knowledge to exploration, has brought relief to unmeasured misery, and has turned the eyes of a world, too often careless of such things, in proper gratitude and well-founded hope to this university and its medical school. Insulin, and its still marvelous and mysterious action, have held a prominent place in the interest of many of us, myself included, during the past year or two. In one of our meetings, however, we shall have the opportunity of considering the observations and opinions of many who are now working on its properties and their significance, and among them will be some who were associated with its discovery. I have thought it appropriate, therefore, to ask your attention to-day to some recent developments in a widely different field of investigation. The subject which I have chosen presents points of general physiological and biochemical interest, apart from its immediately practical importance for the treatment of disease. It has, further, in one way, a special appropriateness to this year's meeting of the British Association. For our knowledge of an important group of diseases, caused by the parasitic trypanosomes. which have provided the experimental material for a very large proportion of chemotherapeutic investigations, we are in the largest measure indebted to the pioneer work of the distinguished president of the association, Sir David Bruce.

THE THEORETICAL ORIGIN OF CHEMOTHERAPY

Chemotherapy may be defined as the specific treatment of infections by artificial remedies. The object of those who study it is to find new remedies which will cure or arrest diseases due to infections, not by alleviating the symptoms or invigorating the patient, but by directly and specifically suppressing the infection. Chemotherapy, in this wide sense, is not entirely of recent growth. When the natives of Peru discovered the value in fevers of the cinchona bark, which the Jesuits brought to Europe in the 17th century, they had found a specific remedy for malaria, which is still the best available. Similarly the natives of Brazil had found in ipecacuanha, which reached

¹ From the address of the president of the Section of Physiology of the British Association for the Advancement of Science, Toronto, August, 1924.

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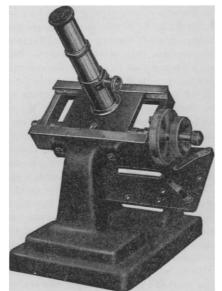
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EDITED BY J. McKEEN CATTELL

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July 26, 1924

Some of the Fundamentals of Character Education: Edwin D. Starbuck.

The Platoon School: John G. Rossman.

The School of Education and the University: FLORIAN CAJORI.

Educational Events:

Child Welfare in Sweden; Intellectual Changes in the Near East; President Coolidge on College Graduates; Reorganization of Tufts College Curriculum; Harvard-Boston University Extension Service; Program of the Institute of Politics at Williams College; Survey of New York City Schools.

Educational Notes and News.

Special Correspondence:

University Vacation Courses at Edinburgh: RAY-MOND WALTERS.

Discussion:

Professional Opportunities in Journalism: THOMAS E. STEWARD.

Quotations: Aiding Students of Music.

The High School as judged by its Students: CAL-VIN O. DAVIS.

Resolutions adopted by the National Education Association at the Washington Meeting.

Educational Research and Statistics:

An Individual Educational Guidance Card for College Students: Herbert A. Toops.

AUGUST 2, 1924

The Relation of Education to Public Welfare: E. C. Brooks.

The Single Salary Schedule in Practice: James F. Hosic.

Public School Publicity: CLYDE MILLER.

Educational Events:

The Report of the British Board of Education; Public School Finance in Illinois; A Milliondollar Endowment for Fisk University; Projects of the American Council on Education; The Harmon Foundation; An International Exchange for the Promotion of Agricultural Science and Education.

Educational Notes and News.

Special Correspondence:

Summer Meetings at Cambridge and Oxford: RAYMOND WALTERS.

Discussion:

Social Needs in Vocational Education: J. E. LINSDALE.

Quotations: Summer Schools for Teaching; The New York School Survey.

Reports: School Ventilation.

Educational Research and Statistics:

Psychological Tests and the Selection of Antioch, Students: ISKANDER HOURWICH.

AUGUST 9, 1924

The Nature and Conditions of Academic Freedom in Universities: Ernest Barker.

The Problem of Negro Schools: G. Victor Cools. Educational Events:

Scholarships for Mahomedan Students; Indian Schools; The Educational Finance Inquiry; Teachers and Citizenship; Arithmetic in the Schools; Educational Work of the Department of Agriculture; A National Campaign for Rural Education; President Eliot on the City of Cambridge.

Educational Notes and News.

Special Correspondence:

Conferences in Holland on History and International Law: RAYMOND WALTERS. Educational Statistics from Who's Who in America: WENDELL S. BROOKS.

Discussion:

Fostering the Research Spirit: GUY E. RHOADES.

Quotations:
What the Undergraduate Wants.

The Department of Education and Relief.

Educational Research and Statistics:

College Scholarship and Size of High School: LESTER H. THORNBERG.

AUGUST 16, 1924

Two Educational Conferences of the British Empire: RAYMOND WALTERS.

A College Vocational Guidance Program: IVA L. PETERS.

Educational Events:

The British Nursery School Conference; The Eleventh National Recreation Congress; Malnutrition of Children in the United States; A Survey of Theological Schools; The New York City School Budget; The Carnegie Public Libraries; The Public Library of the District of Columbia.

Educational Notes and News.

Special Correspondence:

Phi Beta Kappa and Scientific Research: STEPHEN S. VISHER.

Discussion:

A New Educational Function: E. George Payne.

The "Boxer Indemnity" and Education.

Reports:

The Eyesight of School Children.

Educational Research and Statistics:

The Stability of Interest in School Studies: PERCY E. DAVIDSON. Elementary School Teacher Supply and Demand for 1924-25: JOHN`R. McCrory.

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