director of the Radiation Laboratory of the National Research Committee. Dr. I. I. Rabi, of the department of physics, officiated as chairman.

DR. WILLIAM H. ADOLPH, acting professor of biochemistry and nutrition at Cornell University, addressed on October 17 the University of Cincinnati Section of the Society of the Sigma Xi. He spoke on "Chemistry in China."

Dr. Alfred Blalock, professor of surgery and director of surgery at the Johns Hopkins University and surgeon-in-chief, the Johns Hopkins Hospital, will deliver the second Harvey Society Lecture of the current series at the New York Academy of Medicine on November 15. The title of the lecture will be "Physiopathology and Surgical Treatment of Congenital Cardiovascular Defects."

A SERIES of three lectures will be given by Dr. Torbjörn Oskar Caspersson, director of the department for cell research of the Medical Nobel Institute, Stockholm, under the Edward K. Dunham Lectureship for the promotion of the medical sciences at the Harvard Medical School, on November 13, 14 and 16. The title of the series is "Cytochemical Studies of Nucleic Acid and Protein Metabolism."

The first meeting of the Society for the Study of Blood was held at the New York Academy of Medicine on the evening of November 8. The scientific program included papers by Dr. John T. Edsall, associate professor of biological chemistry, and by Dr. Louis K. Diamond, assistant professor of pediatrics, both of the Harvard Medical School; by Dr. Randolph West, associate professor of medicine, and by Dr. Erwin Chargaff, assistant professor of biochemistry, both of the College of Physicians and Surgeons, Columbia University.

THE American Fern Society has received as a bequest from Miss Amey Lillibridge, of Providence, R. I., the sum of \$1,000 in addition to her library and herbarium of ferns.

THE fifty-second annual meeting and twenty-seventh colloquium of the American Mathematical Society will be held at the Museum of Science and Industry, Chicago, on Friday and Saturday, November 23 and 24, in conjunction with meetings of the Mathematical Association of America. The sessions

of the society will begin on Friday at 9:30 and will continue through Saturday afternoon. The sessions of the association will be held on Saturday evening and Sunday morning. The colloquium will consist of four lectures on "Length and Area" by Professor Tibor Radó, of the Ohio State University, on Friday at 9:30 A.M. and 2 P.M. and on Saturday at 10 A.M. and 2 P.M. The nineteenth Josiah Willard Gibbs Lecture will be delivered by Professor J. C. Slater, of the Massachusetts Institute of Technology, on Friday evening at 7:30 P.M. The title of this address is "Physics and the Wave Equation." The annual business meeting and election of officers will be held on Saturday morning at 9:30 A.M. At 11 A.M., by invitation of the Committee to Select Hour Speakers for Western Sectional Meetings, Professor S. M. Ulam, of the University of Southern California, will deliver an address entitled "On the Stability of Solutions of Functional Equations."

THE centenary of the Imperial College of Science and Technology was celebrated in London in October. The college was constituted by Royal Charter in 1907; it is a federation of the Royal College of Science, the Royal School of Mines and the City and Guilds College. They are related to earlier institutions, the earliest of all being the Royal College of Chemistry, which was founded in 1845.

The British Medical Journal reports that the Government of India established on September 1 a Department of Agriculture, a Department of Health and a Department of Education, in place of the existing single Department of Education, Health and Lands. Sir Sardar Jogendra Singh, minister in charge of the conjoint department in the Viceroy's Executive Council, will for the time being take charge of all three departments.

ERRATUM: In the review by Professor Noble P. Sherwood of Dr. Landsteiner's book entitled "Specificity of Serological Reactions" which appeared in SCIENCE, 102: 360-361, 1945, the word "neutralize," from before the word "strychnine" in the last sentence of the first paragraph discussing Chapter 5, was accidentally omitted. The sentence should read, "In connection with this, the author discusses the attempts and failures to produce antibodies to neutralize strychnine and the success achieved in producing antibodies to thyroxine."

## SPECIAL ARTICLES

## A CHEMICAL-MECHANICAL THEORY OF MUSCULAR CONTRACTION<sup>1</sup>

THE obvious problem of muscular contraction is <sup>1</sup> The Bureau of Medicine and Surgery of the Navy

to determine the mechanism by which the energy developed as adenosine triphosphate in carbohydrate

does not necessarily endorse views or opinions expressed in this paper.