

lecture on potato leaf-roll. A short discussion was held upon some apple and tomato diseases.

The arrangements for this conference were in the hands of a committee under the chairmanship of Dr. M. F. Barrus, of Cornell University. The other members of the committee were: Messrs. H. H. Whetzel, of Cornell University; P. A. Murphy of Canada; E. J. Wortley, of Bermuda; W. A. Orton, of the Bureau of Plant Industry, and C. R. Orton, of the Pennsylvania State College.

MR. CARNEGIE'S WILL

THE will of the late Andrew Carnegie was filed on August 28. A statement issued by Elihu Root, Jr., says:

Mr. Carnegie's gifts to charity during his lifetime totalled somewhat in excess of \$350,000,000. The value of his estate is estimated at between \$25,000,000 and \$30,000,000. He really did divest himself of his great fortune for the benefit of mankind, as he long ago said that he would.

The will leaves the real estate and all the works of art and household goods to Mrs. Carnegie. Financial provision for Mrs. Carnegie and for Mrs. Carnegie's daughter, Mrs. Miller, was made during Mr. Carnegie's lifetime rather than by will.

The fourth article of the will contains a series of legacies, the most substantial of which are to charitable institutions. The fifth article of the will contains a series of annuities to relatives and friends. The Carnegie Corporation of New York is the residuary legatee, and Home Trust Company of New Jersey is the executor and trustee under the will.

The public bequests include: To the Cooper Union, \$60,000; to the University of Pittsburgh, \$200,000; to Hampton Institute, \$300,000, and to Stevens Institute, \$100,000.

The annuities include \$10,000 to Dr. Henry S. Pritchett, president of the Carnegie Foundation for the Advancement of Teaching and \$5,000 to Dr. Robert S. Woodward, president of the Carnegie Institution of Washington, and Dr. W. J. Holland, director of the Carnegie Museum at Pittsburgh.

SCIENTIFIC NOTES AND NEWS

MAJOR LAWRENCE MARTIN, General Staff, U. S. Army, who is chief, Geographical Section, Military Intelligence, U. S. Army, left Paris on August 17 for Turkish Armenia, Russian Transcaucasia and Persia, as geographer to General Harbord's Mission to Armenia.

WITH the approval of President Wilson, Dr. Charles H. Herty has sailed for France to obtain for dye consumers of this country a six months' supply of such dyes as are now needed but have not yet been manufactured here. The dyes include the so-called "vat colors," which are used chiefly by the manufacturers of wash goods. It is expected they will be shipped to this country within sixty days.

MAJOR F. E. BREITHUT, formerly of the Chemical Warfare Service Division of the United States Army, also assistant professor of chemistry at the College of the City of New York, has resigned to accept a position with The Foundation Oven Corporation.

MR. FREDERICK L. HOFFMAN, vice-president and statistician of the Prudential Insurance Company, has gone to England to make an intensive investigation into the effects of war on insurance, including the methods and results of national health insurance in Great Britain.

DR. ROLLIN T. CHAMBERLIN and Mr. Ben Herzberg are spending the summer in Alaska and northwestern Canada. The working season down to the early part of August was spent in special lines of investigation on particular phases of the mechanics of glacier movement in western Alaska and the remainder of the season down to the middle of September will be given to field work on the evidences of diastrophism in the northern Rockies.

PROFESSOR W. B. HERMS, associate professor of parasitology in the University of California, and a party of assistants, have completed a malaria-mosquito survey of California during the past summer and the former has resumed his university work. The survey was

begun early in 1916 and carried through the summer of 1917, but, owing to Professor Herms's absence while serving with the United States Army, the work was held in abeyance until the opening of this year. The greater part of the summer's work was carried on in the San Joaquin Valley, however, several weeks were spent in the mountainous countries of Alpine, Mono and Inyo and in portions of San Bernardino. The highest elevation reached was approximately ten thousand feet and the highest elevation at which Anopheline mosquitoes (*Anopheles quadrimaculatus*) were encountered at any time during the survey was 5,482 feet. A total of 18,088 miles were covered in the survey, all by automobile. A report of the survey in the northern third of the state has already been published (U. S. Public Health Report, July 18, 1919) and other reports will be issued in due time. The survey was conducted under the joint auspices of the California State Board of Health and the University of California.

DR. STUART WELLER, professor of paleontologic geology at the University of Chicago, succeeds the late Samuel Wendell Williston as director of the Walker Museum.

DURING summer quarter at the Yerkes Observatory of the University of Chicago, Paul Beifold, professor of astronomy and director of Swasey Observatory, Denison University, acted as voluntary assistant; Francis P. Leavenworth, professor of astronomy and director of the observatory at the University of Minnesota, as visiting professor, and Clifford C. Crump, professor of astronomy and director of the Perkins Observatory, at Ohio Wesleyan University, as volunteer research assistant.

MR. JULIAN S. HUXLEY, a scholar of Balliol College, Oxford, from 1905 to 1909, and from 1913 to 1916 associate professor of biology in the Rice Institute, Houston, Texas, has been elected a fellow of New College.

UNIVERSITY AND EDUCATIONAL NEWS

THE board of trustees of the University of Tennessee is planning to erect a building for

the medical department of the university at Memphis, to cost \$100,000.

At the University of Arkansas Dr. John T. Buchholz, formerly of the West Texas Normal College, has been appointed head of the department of botany, and G. P. Stocker, formerly professor of civil engineering in the Agricultural and Mechanical College of Mississippi, head of the department of civil engineering.

B. L. RICHARDS, Ph.D. (Wisconsin), has been appointed associate professor of botany at the Utah Agricultural College and Experiment Station.

MR. W. H. TIMBIE, author of books on electrical engineering and applied electricity, has been appointed associate professor of electrical engineering in the Massachusetts Institute of Technology.

DR. ALPHONSE RAYMOND DOCHEZ, of the Rockefeller Institute for Medical Research, has been appointed associate professor of medicine at the Johns Hopkins University.

PROFESSOR ANDREW HUNTER has been appointed to the chair of biochemistry in the University of Toronto, vacant through the resignation of Professor Brailsford Robertson.

DR. S. CHAPMAN, chief assistant at Greenwich Observatory, has been appointed professor of mathematics in the University of Manchester.

DISCUSSION AND CORRESPONDENCE

DIRECT PHOTOGRAPHY OF COLONIES OF BACTERIA

IN view of the desirability at times of obtaining photographic record of Petri dishes which have been inoculated with bacteria and incubated, the following extremely simple and rapid method may prove useful.

The special value of this method from the pedagogical point of view is its simplicity, no camera, plates, or dark room being necessary. This makes it possible for all members of a class to preserve accurate and permanent records in comparing bacterial counts in samples of water or milk, to show form of growth on Petri dishes, to illustrate the