hundred and fifty dollars to Dr. Warren C. Hunter, of the department of pathology, University of Oregon, for further study of the problem of local cellular immunity in renal epithelium.

DEAN C. F. BAKER, of the College of Agriculture at Los Banos, Philippine Islands, who died about three months ago, has left to the National Museum his collection of insects and some manuscripts, as well as a card index of Indo-Malayan entomology up to date, including about 100,000 references. The collection comprises more than 1,450 schmitt boxes of mounted specimens, as well as a large amount of unmounted material.

ON September 24 fire destroyed the old Oak Hill club house situated on the site of the new men's college of the University of Rochester. The building had been abandoned preparatory to demolition, but the basement was being used for the storage of geological exhibition cases and specimens from the old geological museum on Prince Street. Three exhibition cases that had been placed on the first floor of the club house were burned. Four more exhibition cases and two hundred boxes of geological specimens in the basement were not harmed by the fire. The lowest layer of boxes were half submerged in water, however, and their contents were necessarily dried and repacked. The water did not injure the specimens or obliterate the labels. The cost of repacking the specimens and the loss of the three exhibition cases were covered by insurance. The material menaced by the fire was no part of Ward's Natural Science Establishment, which institution has become incorporated into the University of Rochester.

WE learn from the *Journal* of the American Medical Association that Dr. John Whitridge Williams, professor of obstetrics, the Johns Hopkins University School of Medicine, Baltimore, has announced that a birth control clinic, supported by prominent physicians and others, will be opened this fall or winter on Broadway near the Johns Hopkins Hospital. It will differ from birth control clinics in most places in that propaganda will not be dispensed, and persons will not be accepted unless sent to the clinic by a physician. It will be purely an association of medical men and will be operated by them. Dr. Bessie L. Moses will be in charge. Dr. Moses is a graduate of the Johns Hopkins and an extern at the Johns Hopkins Hospital and was formerly connected with the Woman's Hospital in Philadelphia. Among those interested besides Dr. Williams are Dr. William H. Howell, director, the Johns Hopkins School of Hygiene and Public Health; Dr. Adolf Meyer, professor of psychiatry, and Dr. Raymond Pearl, director of the institute for biological research.

THE Soviet Academy of Sciences has reported that it has discovered the resting place of a large meteorite, estimated to weigh nearly half a million tons, which fell in a remote district of Yenesei Province, Siberia, in the summer of 1908. The site of the fall occupies over a mile in diameter in almost inaccessible terrain in a marshy forest. The meteorite fell in pieces, so that the ground is pitted with deep funnels from 50 to 100 feet in diameter. The forest for over fifteen miles around the place was completely leveled and the fallen tree trunks scorched. The fall, nineteen years ago, was registered on the seismographs at Irkutsk, 900 miles away, and in the towns of Kirensk and Ilimsk, about 250 miles distant.

UNIVERSITY AND EDUCATIONAL NOTES

MISS GWENTHALYN JONES, of Chicago, has made a gift of $200,000 for the endowment of a professorship in mathematical physics at Princeton University. The chair will be named after her uncle, Thomas D. Jones, of the Princeton class of 1876.

THE University of Chicago will receive $750,000 for the establishment of a free school of mechanic arts by the will of the late Edward T. Jeffery, banker and railroad executive.

VANDERBILT HALL, the new dormitory of the Harvard Medical School which has just been completed, will be dedicated on October 14, when George E. Vincent, president of the Rockefeller Foundation, will deliver the principal address.

DR. WM. RANDOLPH TAYLOR has been promoted to a full professorship of botany at the University of Pennsylvania. He recently returned from a fourth trip devoted to a study of Alpine lakes in the high mountains of British Columbia, completing a group of observations on Alpine algae peculiar to such situations, which have not previously been studied in America.

JOSEPH B. REYNOLDS, associate professor of mathematics and astronomy at Lehigh University, has been promoted to be professor of mathematics and theoretical mechanics. Dr. Reynolds spent the academic year just past, on leave, studying at Princeton University.

IN the department of physics at New York University the following promotions and additions have been made: Dr. H. H. Sheldon, from associate to professor of physics; Dr. W. A. Schneider, from instructor to assistant professor; Roger Estey, from graduate assistant to instructor; Edward O. Salant will work as a National Research Fellow in the department of

physics, Washington Square College; Dr. Francis A. Jenkins, formerly of Harvard University, has become an assistant professor of physics at University College on the Heights.

NEW appointments at Cornell University include those of Robert E. Loving, of the University of Richmond, acting professor of physics; W. W. Nicholas, formerly National Research Fellow, acting assistant professor in physics, and John R. Johnson, of the University of Illinois, assistant professor of organic chemistry.

AT the medical school of Western Reserve University, Dr. Howard H. Beard has been promoted to an assistant professorship of biochemistry and Edward Muntwyler has been appointed demonstrator of biochemistry.

DR. HARVEY A. ZINSZER, acting professor of physics at Mississippi State College for Women, has been elected professor of physics and acting professor of mathematics at Hanover College, Hanover, Indiana.

DR. CHARLES SPARLING EVANS, Ph.D., Princeton, has been appointed associate in geology at Bryn Mawr College.

M. A. STEWART, formerly instructor in biology at the University of Rochester, known to entomologists for his work on Siphonaptera, has been appointed instructor in biology at the Rice Institute.

DR. HOBART A. REIMANN, who recently finished his research work as a fellow in medicine of the National Research Council at the University of Prague, has been appointed assistant professor of medicine at Peking Union Medical College, Peking, China.

DISCUSSION AND CORRESPONDENCE

THE EFFECT OF X-RAY ON TRYOSINASE

THE organic pigment melanin is considered to be the result of the interaction of tyrosine and tyrosinase. When mushrooms or potatoes are ground up with water the water contains a considerable quantity of the enzyme. This can be demonstrated by adding a few drops of the water extract to a dilute solution of tyrosine. This colorless mixture during the first few hours passes through various deepening shades of wine to become black after twenty-four hours. When either potatoes or mushrooms are X-rayed before their extraction with water, this extract invariably shows a decided increase in its powers of melanin production. This increase is in direct proportion to the strength of the X-ray dose. As far as the work has been carried exposures of 30, 60, 90 and 120 minutes at 30 KV., 22 ma., 26 cm. target distance result in increasing depths of color when added to a tyrosine solution that form steps sufficiently sharp to be obvious even in a photograph. Exposures over 2 hours and up to 4 hours produced no further perceptible change. From the results obtained with mice it seems probable that a very severe exposure of this enzyme would cause either a decrease or even a complete inhibition of its activity.

ROBERT T. HANCE

ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH AND UNIVERSITY OF PITTSBURGH

DEFINING SOIL COLLOIDS

ONE of the most popular and widely studied and discussed problems at the present time in the domain of soils is soil colloids. And yet there are probably no two people interested in the subject who agree completely as to a definition of soil colloids. The concepts and definitions of soil colloids seem to vary enormously. Some people call soil colloids only soil particles of the very smallest size which have an upper limit of not more than .000005 millimeter, while other people call colloids soil particles whose upper limit is .005 millimeter and even .008 millimeter. It behooves us, therefore, to have a correct and standard definition of soil colloids.

Now the vital question is, what standard are we going to adopt upon which to base a standard and correct definition of soil colloids?

There are two apparent standards that present themselves—one is the size of the particles and the other the activity or energy manifestations of the particles.

In choosing one of these two standards, it is absolutely necessary to choose one that has or presents a natural transition or demarcation point which divides the soil material quite distinctly into colloidal and non-colloidal.

The activity or energy manifestations of the soil particles seems to meet the essential requirement of possessing a natural transition point which will divide soil material into colloids and non-colloids. For instance, such energy manifestation or phenomena as adsorption of water vapor, base exchange, heat of wetting, etc., are possessed only by the soil colloidal material and not at all or very little by the non-soil colloidal material.

A thorough examination of all the energy phenomena manifested by the soil particles that of the heat of wetting in water appears to be the most logical to adopt as a standard criterion for defining colloids.

The liquid to use in the heat of wetting measurement and hence, in the definition of the soil colloids is water. By using water all objections that might