And then in the evening we assembled around his study table, either in the Allegheny Observatory, or in his own home, and went over the treasures of the day.

First of all, we were made to draw with scrupulous care the various objects, in order that we might see what was really there. Then there was a great hunting through the library for articles and descriptions. Professor Very superintended this research and illumined what we found with the light of his almost omniscient knowledge. It has never been my privilege to know a man more learned than he in so many different departments of science.

The writer is sure that throughout this broad land, there are thousands who have come under the gracious, kindly influence of Professor Very, and who will endorse these words of tribute to a great teacher.

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SCIENTIFIC EVENTS

EXPEDITION TO COMBAT SLEEPING SICKNESS IN FRENCH AFRICA

THE organization of a government expedition to fight sleeping sickness in French equatorial Africa is reported by the New York *Herald*. Thirty-three French physicians and scientific men, under the auspices of the Pasteur Institute, will devote five years to combatting the disease and attempting to rid the colonies of the fatal tsetse fly.

Accompanying the decree authorizing the expedition was a letter from Leon Perrier, minister of colonies, to President Doumergue, stating that the present conditions in Africa made necessary special efforts to stamp out sleeping sickness above all other diseases.

The minister said sanitary conditions had become worse, due to the concentration of native labor in connection with railroad building. He suggested that, owing to the hazardous nature of the task and the length of service necessary, special awards be offered to those who volunteer. This was provided in the decree issued by the president. M. Perrier said he had suggested the expedition after consultation with the Pasteur Institute and that the director of the institute's branch at Brazaville had named a technical adviser for the expedition. Enlistment in the expedition is open to both army and civilian scientific men.

The decree signed by President Doumergue fixes the size of the party at ten physicians, ten hygienists, one veterinarian and twelve hospital attendants, all Europeans, and 105 natives. While the salaries are not unusually high—28,000 francs a year for the physicians and 18,000 and 13,000 for the other classes—they are offered many immunities from taxation and allowances for their families.

In addition they will be given a bonus of 10,000 francs after two years' service, 30,000 after four years and 60,000 if they enlist for an additional two years' service. The last clause implies that the government intends to keep the expedition in operation longer than the original five years mentioned in the decree.

The volunteers must pass three months in study at the Pasteur Institute in Paris or at the branch at Brazaville. They must enlist for two years' continuous service, followed by a vacation of six months, and then for another two years without interruption.

CASTING OF A LARGE DISK OF OPTICAL GLASS BY THE U. S. BUREAU OF STANDARDS

THE *Technical Bulletin* of the U. S. Bureau of Standards gives an account of the casting of a large disk of optical glass for Ohio Wesleyan University. On January 21 the mold containing the disk of optical glass, cast on May 7, 1927, was opened and the glass found to be very good. It appears to be quite uniform throughout, and although it contains some seeds and striae, they will not affect its value as a telescope mirror.

The cover was removed in the presence of several distinguished scientists, including Dr. S. W. Stratton, president of Massachusetts Institute of Technology; W. R. Warner, of the firm of Warner and Swasey, telescope makers, and Dr. George K. Burgess, director of the Bureau of Standards.

The disk, which is about 70 inches in diameter, 11 inches thick and weighs 3,500 pounds, will be used as a great concave mirror for the new reflecting telescope of the Perkins Observatory at Ohio Wesleyan University, Delaware, Ohio.

The money with which to establish this observatory was left to the university by Professor Hiram Mills Perkins, of Ohio Wesleyan, who during 50 years of hard work through most rigid economy and sound investment had been able to amass a small fortune, nearly a quarter of a million dollars. It was his desire to establish an observatory of the first rank at the university and that the entire equipment be of American manufacture. The mounting of the telescope was constructed by the American telescope makers, Warner and Swasey, of Cleveland, Ohio, but difficulty was experienced in getting any bids on the mirror from American glass manufacturers. In particular, no one was willing to state, even approximately, when the disk could be completed. Finally, the director of the observatory, Dr. Clifford C. Crump, called upon the Department of Commerce for assistance. Although the Bureau of Standards has been

making optical glass since 1914, no task approaching the magnitude of the present one had ever been attempted.

After four unsuccessful attempts to obtain a disk of the size required a unique method was developed by the bureau's glass section. Cullet (broken glass of the same composition as the glass to be made) to the amount of 1,000 pounds and 4,600 pounds of sand and chemicals were melted in a single large pot in a gas-fired furnace.

The temperature of the glass when poured on May 7, 1927, was about 1,350° C. For one week the temperature was slowly lowered until it reached 600° C. The glass was held at this point for about four days to allow the temperature of the glass and furnace to become uniform throughout. At 600° C. this particular kind of glass (borosilicate crown) is quite rigid and yet sufficiently viscous to yield to cooling stresses without danger of cracking.

Beginning on May 18 the glass was allowed to cool slowly at an average rate of 2½° C. per day till 460° C. was reached. It was then annealed at this temperature for six weeks, during which time no variation greater than 1° C. was permitted. Final cooling was started on August 30, and room temperature was attained on January 16.

EXPERIMENT STATION OF THE GEORGIA STATE COLLEGE OF AGRICULTURE

THROUGH its president, Dr. Andrew M. Soule, the Georgia State College of Agriculture announces the establishment of an Experiment Station within the institution, this station to be supported *in toto* from the funds of the institution. For several years problems in farm management, fertilization of agronomical crops and fruit plants as well as ecological studies of the horticultural plants have been conducted. As soon after the first of January, 1928, as feasible, full-time research members of the staff will be appointed in the divisions of agricultural chemistry, agricultural engineering, animal husbandry, horticulture, poultry, marketing and home economics.

The experiment station will be in the hands of a committee of which President Andrew M. Soule is chairman. The responsibility for coordinating and general supervision of the experimental work will rest on the secretary of the research committee who has been designated for this position by the board of trustees.

The formation of the experiment station within the Georgia State College of Agriculture will be completed during the year of 1928. There will be ten full-time research members on its staff, and with these will be associated three Purnell workers already at the college in cooperation with the Georgia State Experiment Station.

It is with a great deal of pleasure that the announcement of this experiment station is made, for we feel that the agriculture of Georgia is certain to reap large benefits and profits from the work of these men who will be in a position to put their whole time on solving the problems of Georgia's farms and homes.

T. H. MCHATTON,
Secretary of Research

AWARD OF THE CHARLES REID BARNES LIFE MEMBERSHIP IN THE AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS

AT the recent Nashville meeting, the second award of the Charles Reid Barnes honorary life membership in the American Society of Plant Physiologists was made to Professor Francis E. Lloyd, MacDonald professor of botany in McGill University, Montreal. This form of honorary life membership was inaugurated at the Kansas City meeting, in 1925, in memory of Charles Reid Barnes, who died at Chicago on February 24, 1910, in the midst of an active life. All who worked with Barnes at the University of Wisconsin or at the University of Chicago remember him as an exceptionally inspiring teacher, a man of untiring industry and wonderful ability. Through his publications and especially through his editorial work on the staff of the *Botanical Gazette* from 1882 to the time of his death, as well as through the work of those who received their training in his laboratories, Barnes left a permanent and indelible imprint of his remarkably clear and precise thought upon the whole science of plant physiology.

A Charles Reid Barnes honorary life membership is awarded each year, at the annual meeting of the American Society of Plant Physiologists. The first award was made at the Philadelphia meeting last year, to Burton E. Livingston, professor of plant physiology of the Johns Hopkins University and permanent secretary of the American Association for the Advancement of Science.

Professor Lloyd, who now becomes the second Charles Reid Barnes life member of the American Society of Plant Physiologists, was born in Manchester, England. He attended Lafayette College and Princeton University, receiving the degrees of A.B. and A.M. at Princeton in 1891 and 1895, respectively. He was a student at Munich in 1898, and at Bonn in 1901. He was instructor in biology at Williams College, 1891–92; professor of biology and geology 1892–95, and of biology 1895–97, at Pacific University, Oregon; adjunct professor of biology in Teachers College, Columbia University, 1897–1906. In 1907 he