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 gasfired furnace.

The temperature of the glass when poured on May 7, 1927, was about  $1,350^{\circ}$  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  $2\frac{1}{2}^{\circ}$  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