the empire caused by fungoid diseases of plants.

A Canadian estimate places the loss in the year 1917, in the prairie region of Canada alone, at 100,000,000 bushels, worth from £25,000,000 to £50,000,000. For the same year, the loss in the five chief cereals of the United States due to this fungus was placed at 400,000,000 bushels. The annual loss on Indian wheat is estimated in millions of rupees.

A proposal was adopted for the establishment of a central organization to encourage and coordinate work throughout the Empire on fungi in relation to agriculture. The Colonial Office has brought the necessary negotations to a successful issue, and has now formed a mycological bureau supported by contributions from the various self-governing Dominions, India, Egypt, the Sudan, and the nonself-governing Colonies and Protectorates. The precedent of the Imperial Bureau of Entomology has been followed, and the new institution is to be managed by a committee of experts under the chairmanship of Lord Harcourt. The headquarters of the bureau are to be at Kew, and it is to work in close association with the Royal Botanic Gardens, where there are already a magnificent library, laboratories, and a department for fungi in the museum.

## CERAMIC INVESTIGATIONS BY THE UNITED STATES BUREAU OF MINES

A NEW ceramic laboratory, in which investigative work regarding the clays of the Northwest will be conducted, is to be installed at the Northwest Experiment Station of the United States Bureau of Mines on the campus of the University of Washington at Seattle.

The laboratory work in connection with a general study of the clays of Washington has been completed, and a bulletin on the subject of Washington clays is now in course of preparation.

At the Northwest Experiment Station an attempt is being made to remove iron and silicon from kaolin to produce either sillimanite or the oxide of aluminum. Clay was

melted in an arcing furnace in presence of carbon; some silicon and iron were volatilized and some reduced to metal. The products contained less iron oxide and silica and more alumina than previously, but not in sufficient amounts to be sillimanite. The refractoriness of these products is to be determined by the ordinary tests.

A cooperative agreement has been effected between the United States Bureau of Mines and the Central of Georgia Railway for an investigation by the Ceramic Experiment Station, Columbus, Ohio, of the white clay and bauxites through central Georgia along the railroad right-of-way. R. B. Gilmore, formerly ceramic chemist with the Vesuvius Crucible Co., Swissvale, Pa., and H. M. Kraner, formerly ceramic assistant of the Bureau of Mines, have been assigned to this work. Preliminary tests on the effects of low calcination temperatures on the colloidal content of Georgia white clays have been made. By calcining Georgia clay to from 500° to 600° C. the adsorptive properties were reduced to those of the English china clay, without materially reducing its plasticity.

A microscopic examination of the mineral constituent of kaolins is being conducted at the Ceramic Experiment Station at Columbus.

## THE BIOLOGY CLUB OF THE OHIO STATE UNIVERSITY

DURING the academic year of 1920-21, the Biology Club of the Ohio State University held monthly meetings from October to May, inclusive. The club, organized in 1891, is one of the oldest organizations of the university. It is composed of members of the science faculties, graduate students, and those interested in scientific research. Opportunity has been given the past year for discussions of scientific experimentation and investigation by members of the faculties, and reports of research by graduate students. The following papers were presented:

Oct. 11. Reports on a survey of Ohio fishes.

1. "Distribution of Ohio fishes," Professor R. C. Osburn.

2. "Food of the large mouth bass," E. L. Wickliff.

3. "Algal food of the gizzard shad," L. H.

Tiffany. Nov. 2. "The Hessian fly in Ohio," Professor T. H. Parks.