

able, and departments of crops, soils, animal husbandry, horticulture, floriculture, entomology, botany, forestry, bacteriology and biology have been put in operation. In 1908 an agricultural college was organized in connection with the station, but this was disbanded in 1915.

Subsequently an agricultural college and experiment station was established at the capital of each province along much the same lines as at Peking, and many other stations in addition. There are now reported to be 130 stations in the 22 provinces, of which 31 are in Chihli, 25 in Szechwan, 15 in Hu-Long-Kiang, 7 in Hupeh, and 7 in Kwangtung.

Among these are two cotton experiment stations, one at Cheng Ting Hsien, Chihli, and one at Nan Tung Chou, Kiangsu, with a third under consideration at Tung Haing Chou, Hupeh. Experiments are being conducted at these stations in seed selection, seed distribution, plant harvesting, soils and manures, treatment of pests and cotton weaving. A corps of students is also being trained at these stations. H. H. Jobson is in charge of the organization of the cotton work, with H. K. Fung as associate.

Stock-raising experiment stations have been established at Kalgan and Shih Men Shan, Anhui. These are expected to study the improvement of breeds of domestic animals, promote the breeding and sale of stock and stock raising enterprises, and the cultivation of forage crops.

Considerable attention is also being devoted to forestry in China. A department of forestry was organized in January, 1916, with a forestry commissioner in each province. Forestry experiment stations and training schools have been established at Ch'ang Ch'in Hsien, Shantung, and in the Temple of Heaven at Peking.

The university at Nanking has maintained a college of agriculture and a school of forestry for several years. This is an American-supported institution, and in 1915 had enrolled about 70 students in agriculture. A colonization association has been organized under its auspices, with provision for the reser-

vation of about 35 acres in each colony for a model farm. A tract already purchased on Purple Mountain, just outside Nanking, is to be used as an experiment station in connection with the different colonies.

An agricultural experiment station was opened at Nanhsuchou, Anhwei, in 1915, as a part of the American Presbyterian mission station. Agricultural work was taken up at this institution partly as a practical way to teach Christianity, partly to make friends and partly to improve economic conditions. The station is located on the railway between Nanking and Tientsin, and attempts to serve an area of about 6,000 square miles and from 1,500,000 to 2,000,000 people. The farming methods in use are those of from one to two thousand years ago. Special prominence is being given in the experimental work to seed selection, better tillage methods, more and better fertilization, drainage and animal husbandry. The work is to be largely of a demonstration nature during the present pioneer stage, and will also include an agricultural school, a school farm and short winter courses for farmers. J. Losing Buck has been in charge of the agricultural work at the station from the outset.

THE BRITISH METEOROLOGICAL COMMITTEE

THE eleventh annual report of the British Meteorological Committee for the year ended March 31, 1916, states, according to an abstract in the London *Times*, that during the year the staff of all departments of the office was fully occupied in supplying information in reply to inquiries from the various departments of the Admiralty and the War Office. "The results of meteorological inquiries initiated in what appeared to be the remote interest of the theory of the circulation of the atmosphere have turned out to have important practical bearings, and collections of statistics compiled in the ordinary course of meteorological duty have now come in most usefully to meet urgent requirements." "A separate unit of the Royal Engineers has," says the report, "been created for meteorological service in the field. The service with the Expeditionary Force in France is under the command of

Major Gold, one of the superintendents of division in the office, and that with the force in the Eastern Mediterranean under Captain E. M. Wedderburn, honorable secretary of the Scottish Meteorological Society. With him is Lieutenant E. Kidson, a graduate of Canterbury College, New Zealand, who has distinguished himself as magnetician in the service of the Carnegie Institution of Washington, and came to this country to offer his services. In the organization of these meteorological services, the committee has received great assistance from one of its members, Major H. G. Lyons, R.E., formerly director-general of the Egyptian Survey Department, whose services were lent by the War Office in view of the importance of an adequate knowledge of the weather to the proper conduct of naval and military operations in the Mediterranean, to which attention was called by the Admiralty. Major Lyons has taken charge of that department of the work of the Office from May 17, 1915, and more recently he has been appointed to represent the War Office on the committee. The special thanks of the Admiralty for the services of the meteorological officer in the Mediterranean have been received through the War Office. In view of the importance of coordinating the experience of flying officers with the work of the office and observatories in order to obtain more effective knowledge of the structure of the atmosphere for the use of the air services, the committee represented to the director of military aeronautics the desirability of appointing a professor of meteorology to the Royal Flying Corps (with the rank of major during the war). The director of military aeronautics concurred, and the Army Council approved the appointment of Lieutenant G. I. Taylor, R.F.C., to that office. Major Taylor was Schuster reader in meteorology from February 20, 1912. His services were lent to the Board of Trade for meteorological work on the steamship *Scotia*, chartered for the investigation of ice in 1913.

THE WISCONSIN PHARMACEUTICAL EXPERIMENT STATION

At the request of the State Pharmaceutical Association, the Wisconsin Pharmaceutical

Experiment Station was established by special legislative enactment four years ago. Its meager budget of \$2,500 nevertheless yielded modest results since practically the entire sum was expended in productive work. This was made possible because of the close cooperation of the station with the department of pharmacy of the university.

As a war measure, the present legislature has doubled the income of the station. The pharmaceutical garden has been increased from three to ten acres, with ground that admits of an increase to thirty acres as soon as the means of the station permit. This increase in garden area was made largely at the request of the Office of Drug-Plant and Poisonous-Plant Investigations, which keeps an expert on the grounds, in order that acre experiments of greater economic significance might be carried out.

The station also enjoys a research fellowship of \$500 for the investigation of thymol and related problems, established for the academic year 1917-18 by Fritzsche Bros., of New York. Another \$500 previously offered as fellowship by the Kremers-Urban Co., pharmaceutical manufacturers of Milwaukee, was utilized toward an endowment fund for pharmaceutical research, a movement, which, like the station movement five years ago, was started by the pharmaceutical alumni of the university.

In addition, the income from \$10,328, bequeathed by the wills of the late Mr. and Mrs. Albert Hollister, is available for graduate study and research in the form of the Hollister fellowship in pharmacy.

SCIENTIFIC NOTES AND NEWS

PRESIDENT R. A. PEARSON, of the Iowa State College, is acting as assistant to the secretary of agriculture to cooperate with the state boards for food production and conservation.

DR. FRANK M. CHAPMAN, curator of ornithology in the American Museum of Natural History, is now in Washington, where he is director of the Red Cross Bureau of Publications. He is the editor of the newly established *Red Cross Bulletin*, which is designed