# SCIENTIFIC EVENTS

## THE WHIPSNADE ZOOLOGICAL GARDEN

SIR PETER CHALMERS MITCHELL, secretary of the Zoological Society, London, in an address to members of the Luton Rotary Club, said, according to the London *Times*, that he hoped the new Zoological Garden at Whipsnade would be open next spring. Sir Peter stated that

The London zoo was becoming too small because of the increasing number of visitors, and because if they were going to keep animals in captivity they should give them the maximum amount of freedom and open air. In London they tried to keep a large number requiring heat and indoor accommodation, and thus they had to provide a large number of buildings of that kind, so that they came to the conclusion that they ought to have an extension of the grounds, which was impossible in London.

Whipsnade was, in his mind, an intermediate stage, a link in a much bigger scheme. Personally, he believed it was the duty of the present generation all over the world to preserve the existing animals of the world so far as it was possible. There were three ways of doing that. They had the intensive way, like the zoo in London. The next thing was what they hoped Whipsnade was going to become—a place where the animals would be able to be shown far more in their natural conditions. The third stage was that there ought to be in every part of the Empire great open-air reserves where animals would be allowed to remain absolutely in their natural freedom.

His image of the future of these national parks and reserves in Africa, India and so on was not that the animals should be enclosed, but that, if necessary, the visitors should be enclosed, that there should be covered ways going through these reserves where people could see the animals absolutely free and in their natural conditions.

It had been said that Whipsnade was merely to be a sort of sanitary station, to which they were to send sick animals from London. It was to be nothing of the kind. What they did think was that at Whipsnade they would be able to give animals much more space and freedom, and that there would be a larger number of animals breeding down there, and that they would keep in London only selected animals in the pink of condition. There would be a constant exchange between the zoo at Whipsnade and the zoo in London. The new zoo would be as free to the public as to the fellows of the society, and would be open on Sundays on payment, just as on week days, and for that reason they were laying it out on the scale which would hold crowds. The maximum comfortable capacity at the London zoo was 20,000, but from the way the Whipsnade zoo was laid out it should be able comfortably to hold 100,000, and to provide for that they were having five restaurants, scattered in different parts of the park. Round about each of these places would be land that could be used for picnics.

In relation to the animals, they were trying to arrange them in a series of large paddocks, with places for the public along the front of the paddocks, which would be completely surrounded in time by trees. There would be open paddocks with a background of trees, behind which they were going to make huts, cages and dens for the animals. These would be entirely concealed from the public by trees. It would be possible, with electric power from Luton, to provide them with heaters, which could be switched on from some central point when the weather made it necessary. He could not tell them exactly all the animals they were going to begin with at Whipsnade. They had already a certain number of bears, some cranes, and several kinds of deer, which had been breeding very well. They hoped in the course of this winter to make provision for elephants, camels, lions, tigers and wolves, with a great many kinds of antelope and deer. They had already a small herd of bison, and were going to have a herd of white marked cattle, given by the Duke of Bedford. There would also be many different kinds of birds. By next Whitsuntide the zoo would not be anything like completely ready, but they hoped there would be enough to interest the public.

## THE NATIONAL ARBORETUM

A TRACT has been selected near the Anacostia River above Benning Bridge on Mount Hamilton for a national arboretum, which will be an educational and recreational center near the capital. The Congress has authorized an appropriation of $300,000 to develop the project.

The arboretum, according to a report in the Baltimore *Sun*, will cover about 800 acres. Half of the needed area is already owned by the government in a stretch of marsh lands along the Anacostia River. Adjoining this are about 400 acres of wooded highland known as the Mount Hamilton and Hickory Hill tracts. The two pieces of land afford an admirable diversity of physiography and soils needed for many types of plants.

The chief purpose of the national arboretum will be to promote scientific research and diffusion of knowledge of plants, as well as to establish a garden for the permanent preservation of the authentic living specimens of the thousands of plants which the Department of Agriculture has introduced from foreign countries.

It will be a plant museum, wherein the cultivated plants and their wild relatives, growing together in the same climate, may be studied as source material for the breeding of the more valuable species. It will afford botanists an opportunity to carry on research which will be of great assistance to the U. S. Department of Agriculture in developing the strongest types of plants of superior qualities. Plants and trees that

resist certain diseases will be studied with the object of replacing the types which are easily infected with destructive blights. Search has been made in the Orient in the hope of finding trees sufficiently resistant and of the necessary size to take the place of the chestnut. At a saving of time and effort and at much less expense it is proposed to breed a disease-resisting chestnut from the material that exists in this country or which may be easily obtained. There is a similar need for the development of other types of pest-resistant trees and plants.

The vicinity of Washington is said to offer one of the best regions in the country for growing plants and trees that belong to both warm and cold climates.

## THE FIRST TRANSCONTINENTAL FRUIT TRANSPORTATION LABORATORY

THE Chicago Great Western Railroad brought into Chicago on September 23 the first transcontinental fruit transportation laboratory. The laboratory, which consists of a fifty-two car train of citrus fruits, destined for Chicago, New York and other eastern points, left Colton, California, at 9:30 A. M. on September 16, reaching Chicago in 146 hours. The Great Western Railway received it from the Union Pacific at Council Bluffs on the following Monday.

Riding with the train in a special car were four ventilation and temperature experts of the U. S. Department of Agriculture, C. W. Mann, W. C. Cooper, R. J. Asbury and J. G. Gray, and four representatives of the Pacific Fruit Express Company. *En route* they made continual tests and recorded the efficiency of refrigeration and ventilation equipment. Accurate control of these factors is of primary importance in the long-distance shipping of all perishables, and it is anticipated that the series of tests on this trip will yield results important to shippers of food products.

At Council Bluffs, R. B. Croll, superintendent of transportation for the Great Western Railway, and division superintendents, S. V. Rowland and C. J. Kavanagh, conducted the party over their respective divisions. Including a re-icing stop at Oelwein, Iowa, this part of the journey took approximately 24 hours.

A part of the trainload went to the Chicago market for Middle West consumers and the rest was delivered by the Great Western to the Erie for transportation to the East.

The 146-hour schedule on which the laboratory train moved from California to Chicago is the regular schedule for perishable freight. Its time is exceeded only by the fast silk trains which carry oriental silks from Pacific ports to the East. But, whereas silk moves in four to twelve car trains, using express and passenger equipment, perishables move in forty to fifty car trains, using regular freight equipment, and numerous stops must be made for re-icing cars.

Colton, California, which serves the southern part of the state, is one of the three principal concentration points from which western citrus fruits move into the eastern markets. The Great Western, according to Oscar Townsend, vice-president in charge of traffic, handles a large volume of this and other perishable freight on fast schedules, and it has a record of over a year's standing of 100 per cent. on time arrivals of trains of perishables.

## COURSE IN THE RADIOLOGICAL DIAGNOSIS OF CANCER

MORE than 300 X-ray experts from all parts of the United States and Canada assembled at Baltimore on September 10 for a three-day post-graduate course designed to improve radiological diagnosis of cancer and to make known the latest discoveries. The meetings were arranged under the auspices of the Chemical Foundation, of which Mr. Francis P. Garvan, of New York, is president, and the Bloodgood Cancer Research Fund, whose director, Dr. Joseph Colt Bloodgood, presided. The courses were held morning, afternoon and evening daily in the Belvedere Hotel.

All sessions were confined to diagnosis and treatment of tumors and bone diseases and approximately ninety cases were studied. Dr. Joseph S. Ames, president of the Johns Hopkins University, and Dr. John M. T. Finney, professor of clinical surgery at the School of Medicine, were both speakers on post-graduate teaching in medicine. Dr. William S. Baer, professor of orthopedics at the Johns Hopkins University, spoke on the diagnosis and treatment of osteomyelitis and described his method of treatment with live maggots. Other speakers included Dr. William B. Coley, of Memorial Hospital, New York, and Dr. Harvey Smith, chief surgeon, Harrisburg, Pennsylvania, Hospital. Dr. John Shelton Horsley, of Richmond, Virginia, discussed recurrent giant cell tumors. The new Radiological Research Institute's program of activities was described by Dr. Edwin Ernst, president of the Radiological Society of North America. Dr. Hugh H. Young, professor of urology, the Johns Hopkins University, discussed the relations between bone diseases and cancer of the prostate; Dr. Henry Jaffe, orthopedic surgeon at the Hospital for Ruptured and Crippled Children, New York, spoke on experimental osteitis fibrosa in hyperparathyroid animals. Dr. Frederic J. Cotton, chief orthopedic surgeon, Boston City Hospital, discussed the relation of fractures and injuries to bone tumors.

Foundations were laid for the establishment of a correspondence course in cancer diagnosis, planned to