quate for it such as had been presented through the generosity of Mr. Yapp. The first Astronomer Royal, Flamsteed, was appointed at a salary of £100 a year, out of which he had to provide his own instruments. The new instrument had a larger aperture and a greater light-collecting power than any other instrument the observatory possessed. It was about as large as could be used with advantage in the English climate.

The telescope had been presented in commemoration of the work of Sir Frank Dyson as Astronomer Royal in directing the work of the observatory for nearly twenty-five years. During the war came the development of the generalized theory of relativity. That could only be tested by astronomical observations, and, in particular, one of the most important tests could only be made at the time of the total eclipse of the sun.

Sir Frank Dyson knew that this was to happen in May, 1919, and that it would possibly be the most favorable opportunity for making that particular test. It was then about the darkest time in the whole of the war. But not daunted by that, he set to work immediately to prepare plans and organize expeditions, so that if the war ended in time those expeditions could be sent out. As a result they did go, one from that observatory and one from Cambridge, and brought back results which settled conclusively that the predictions of the generalized relativity theory were practical.

THE LEON MANDEL GUATEMALA EXPEDITION OF THE FIELD MUSEUM

KARL P. SCHMIDT, F. J. W. Schmidt and Daniel Clark, who returned in April from Guatemala, to the Field Columbian Museum, Chicago, report the success of several of the objects of the Leon Mandel Guatemala Expedition. Emmet R. Blake, ornithologist, remained in the field until June 1 in order to conclude studies on the distribution of Guatemalan birds.

According to the *Bulletin* of the Museum, the expedition obtained specimens and accessory material for exhibition groups of three of the most characteristic and interesting of Central American birds—the toucans, the giant oriole, and the quetzal. Two species of toucans, with their brilliant colors and grotesquely enlarged beaks, were found feeding in great flocks on fruit trees in the forest. The giant orioles drape whole trees with their woven hanging nests which are from three to six feet in length. Their colonies are a remarkable feature of the tropical landscape, and specimens of the nests as well as the birds were collected. Special permission was granted by President Jorge Ubico, of Guatemala, to collect the quetzel, which enjoys special protection as the national bird of Guatemala. This most brilliant of all the trogons was formerly so persecuted for its plumes that it has become one of the rarest of birds. Specimens were found in the cloud forest on the slopes of the Volcano Tajumulco in western Guatemala, and a small series was collected for the exhibit planned for the Proposed Hall of Foreign Birds.

The scientific results of the expedition in the accumulation of representative collections from this rich territory are as valuable as the materials obtained for the exhibition halls. The collection of reptiles and amphibians will enable Assistant Curator Karl P. Schmidt to conclude his project for a comprehensive list of the Central American forms undertaken under the joint auspices of Field Museum and the John Simon Guggenheim Foundation.

Specialization on certain groups of small mammals and the employment of a wide variety of methods of collecting produced interesting results, especially with bats and certain rodents. The collections of these mammals obtained by Mr. F. J. W. Schmidt include some of the rarest of Central American species as well as several forms hitherto unknown.

Previous expeditions to Guatemala under the auspices of the Field Museum worked in limited areas. The larger personnel of the present expedition has made possible more comprehensive work in this territory.

THE ESTABLISHMENT OF A WILD-LIFE DEMONSTRATION AREA

PREPARING to set landowners an example in wild-life restoration, the U. S. Department of Agriculture has decided to devote 800 acres on its Beltsville (Md.) Experiment Station to the development of wild-life resources and the demonstration of management practises. The Bureau of Biological Survey will be in charge.

Typical of areas on many farms, the tract comprises cultivated sections, abandoned crop lands, timber and marshes. A small stream with several branches runs through the area. Already there are foxes, opossums and raccoons; squirrels, rabbits and other rodents on the tract. More than fifty species of birds nest there.

In treating this tract as a demonstration area the Biological Survey plans to construct two simple dams that will impound water for wild fowl and also for muskrats and beavers. Wild-life food plants found on the area will be encouraged, others have been planted, and studies will be made of other means for the restoration, increase and conservation of the wild life of the region.

The department in its program of demonstrating wild-life management is first appraising conditions on the area. Soil-cover (including cover for game) and soil surveys have been made, and a topographic survey is nearing completion. Results of these surveys are being recorded on maps.

The bureau is taking a census of the wild life on the tract. Soon after the demonstration area was established, Arthur H. Howell, of the survey, counted the