

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 DIAG- NOSIS 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

keep pathologists, physicians and surgeons, living far from the great centers, in touch with the experiments and discoveries of the surgical pathological laboratory of the Johns Hopkins University, where the records of thousands of cancer cases are filed. The primary object of the course is to increase the accuracy of early diagnoses of cases which may or may not be cancer and thereby improve the chances of the patient's recovery and avoid unnecessary amputations. It is also designed to develop improved methods for post-graduate instruction in special diagnosis of special diseases. Sections of tumors from the collection at the Johns Hopkins University will be mailed to students with case histories of the disease. The student will return them with his diagnosis, which will then be corrected in the light of the laboratory's further experience, and returned with explanations to the student, who will thus have an opportunity to study cases which would otherwise be denied him by his geographical location. As at present planned, the course would be open only to professional men and women who have attended clinics at the university.

Dr. Bloodgood, who will conduct the course, will have the assistance of the surgical pathological laboratory's staff, including Drs. George A. Stewart, L. Clarence Cohn, Charles F. Geschickter, Max Kahn, Murray M. Copeland, E. S. Anderson and R. L. Oliver; Messrs. G. T. Thompson, R. F. C. Kegel and R. C. Major, special students of the Garvan Research Fund; Dr. L. Bonelli, resident surgeon, St. Agnes' Hospital; Dr. J. R. Moore, special graduate student in the laboratory and chief orthopedic surgeon, Shriners' Hospital, Philadelphia.

INTERNATIONAL HIGHWAY ENGINEERS' TOURS

THREE hundred invitations have been issued to official and other delegates to the Sixth International Road Congress to participate in the highway inspection tours sponsored by the Highway Education Board, following the sessions of the congress from October 6 to 11. These invitations have gone to prominent highway engineers and administrative officials of more than sixty countries.

The Highway Education Board, with headquarters at 1723 N Street, Washington, is sponsoring the tours. The chairman of the board is Mr. Thomas H. MacDonald, chief of the U. S. Bureau of Public Roads, and on the board are the following members: Dean F. L. Bishop, Society for the Promotion of Engineering Education; Wilbur J. Carr, Assistant Secretary of State; Roy D. Chapin, National Automobile Chamber of Commerce; J. Walter Drake, former Assistant Sec-

retary of Commerce; Pyke Johnson, National Automobile Chamber of Commerce; Fred I. Kent, American Bankers' Association; H. H. Rice, National Automobile Chamber of Commerce; L. S. Rowe, Director General, Pan American Union; W. O. Rutherford, Rubber Manufacturers Association, Inc.; F. A. Seiberling, Rubber Manufacturers Association, Inc.

The tours have been arranged to afford the delegates participating an opportunity to acquire first-hand information on the construction, maintenance and use of all types of modern highways in the United States. In so far as time permits agricultural and industrial activity along the routes of the tours will be studied, with particular reference to the relationship to highway transportation. The delegates invited to participate will be divided into groups of the same size for each tour.

The first tour will be devoted to a study of high-type, heavy traffic roads in densely populated industrial areas, including metropolitan area developments. The second will include a thorough study of all types of roads, principally in agricultural areas and in temperate and semi-tropical zones. Special attention will be given to the utilization of low-cost roads in the semi-tropical part of the country. The third will be devoted to all types of roads under varying topographical and climatic conditions, with particular reference to winter conditions of frost and snow and low-cost roads in northern latitudes.

Among the national groups cooperating with the board are the American Association of State Highway Officials, the American Automobile Association, the American Petroleum Institute, the American Road Builders' Association, the U. S. Chamber of Commerce, Motor and Equipment Association, the Rubber Association of America and the National Automobile Chamber of Commerce.

State highway departments are laying out and marking tour routes, staging special construction and maintenance exhibits and otherwise cooperating fully to make the tour a thorough survey of American highways and highway transport. Chambers of commerce and other local groups will entertain the delegates *en tour*, and railroad and bus lines are cooperating with arrangements for the transportation of delegates.

The Departments of State, Agriculture and Commerce and the Pan American Union are cooperating with the Highway Education Board. It is anticipated that many of the experts of the commodity divisions of the Department of Commerce, as well as officials of the Departments of State and Agriculture and several American consuls and commercial attachés at important points throughout the world who are visiting the United States will accompany the party.