$10,000 is being raised, the interest to be used to bring an outstanding lecturer on ophthalmology or allied topics to Chicago every second year to deliver the Wilder Memorial lecture. Friends of the late Dr. Wilder who wish to contribute should send their checks to the Northern Trust Bank of Chicago.

SCIENTIFIC EVENTS

THE NATIONAL PHYSICAL LABORATORY

THE annual inspection of the National Physical Laboratory at Teddington to review the work done and the advances made at the laboratory in the past year was held on July 1. The London *Times* reports that the visitors were received by Sir William Bragg, president of the Royal Society and chairman of the general board of the laboratory; Lord Rayleigh, chairman of the executive committee, and Sir Frank Smith, secretary of the Department of Scientific and Industrial Research and director of the laboratory.

The metallurgy department exhibited fragments of copper and bronze articles from Ur of the Chaldees and Homeric Troy. The department has been asked to help in determining, by microchemical analysis and microscopical examination of minute samples, the source of origin of the metal used in these objects.

In the engineering department x-rays have been employed to discover how metal begins to break. This research has shown for the first time that though the fracture of an engineering component may have been produced by any one of a great number of methods of straining, the physical state of the crystalline structures that result is in every instance the same. This applies equally to a connecting-rod in which "fatigue" has been the cause of the breakage and to a chain which has snapped suddenly when much overloaded. The same department of engineering showed a model, 10 feet square, representing to exact scale all the buildings between the Thames Embankment and Aldwych, and extending west and east along the Strand. It is intended to place this model in the largest wind tunnel and there study the effects of high wind pressures on a building placed approximately where the Gaiety Theater stands. The results of this research will throw light on the screening effect of surrounding buildings and on what happens when they are removed or altered.

The new photometry laboratory in the electricity department was open to visitors for the first time. It includes a room 145 feet long for the measurement of different types of projectors, such as motor-car headlights, signal lights and searchlights. The high-voltage laboratory, equipped with a generator of surge voltages up to 2,000,000 volts—miniature flashes of lightning—has now been provided by the Central Electricity Board with an overhead grid transmission line 3,000 feet long, erected in the laboratory grounds; and the visitors saw in action the equipment whereby the characteristics of an electrical discharge lasting only a millionth of a second can be completely analyzed. It is thus possible to study the passage of "surges" traveling along the transmission line at 186,000 miles a second, with the object of minimizing the serious consequences which may ensue when an overhead transmission line is struck by lightning.

The aerodynamics department showed a film which has been made for the Air Ministry to elucidate air flow. The air flowing past aeroplane models can be actually seen, being made visible by the production in the air current of tiny electric sparks. The sparks heat spots of air, a shadowgraph of which is produced by suitable illumination and can be photographed by a cinema camera. With a high-speed camera taking 2,300 photographs a second it is possible to analyze changes in the motion which are far too rapid to be seen clearly by the eye.

TOURS OF THE THIRD WORLD POWER CONFERENCE

PLANS for nine separate tours for visiting foreign engineers, scientists and industrialists, in company with a group of Americans, have been completed as a supplement to the World Power Conference meeting in Washington from September 7 to 12.

The tours will be held both before and after the conference. More than 700 distinguished foreigners, representatives of 48 nations, are expected to meet with some 2,500 Americans, for the sessions, which will be devoted to a consideration of "The National Power Economy." Those participating will inspect hydropower plants, research laboratories, electrical manufacturing plants, business offices of urban utilities, metropolitan railroad terminals, big dams and small dams, high-speed railroad trains in operation and under construction. Visits will be made to the plants of the utilities of New York, the General Electric and Westinghouse factories, Pittsburgh's steel mills, Niagara Falls, Detroit's automobile factories, the great dams of the west, Coulee, Bonneville and Boulder, the San Francisco Bridges, Tennessee Valley, etc.

In Washington, the discussions will be devoted primarily to the economic problems involved in the conservation of power resources and the production and distribution of power. The tours will round out the conference on the technical side. They have be planned under the sponsorship of the enginee societies and the trade associations of industries cerned with power.

Four of the tours will be given before, and will be repeated after the conference. Tour V, which goes to the West Coast, will be given afterwards only. Two special trips are planned in addition, one going to Canada and one to visit the developments on the Susquehanna River.

As the tours move from city to city, data will be collected and at the end of each tour a carefully planned round-table discussion will be held in which leading experts of this country and others will participate. American and foreign methods and theories will be compared.

Tours have been arranged that bear on five general subjects: Tour I, Mineral Sources of Energy, including parties on coal, oil, gas and internal combustion engines; Tour II, Hydraulic Sources of Energy, including parties on dams, hydro plants and hydraulic research, TVA and the larger implications of hydroelectric development; Tour III, Metropolitan areas, utilities and research, including parties on steam power plants, electrical equipment, engineering education and research and business management of utilities; Tour IV, Railroad Transport; Tour V, Major Construction Projects.

The following points are included on the itineraries:

Tour I: Pre-Conference, New York, Detroit, Cleveland and Pittsburgh; Post-Conference, New York, Pittsburgh, Cleveland, Niagara Falls and Philadelphia.

Tour II: Pre-Conference, New York, Boston, Niagara Falls, Pittsburgh, Zanesville, Knoxville and other points in the Tennessee Valley; Post-Conference, New York, Montreal, Ottawa, Niagara Falls, Pittsburgh, Zanesville and the Tennessee Valley.

Tour III: Pre-Conference, New York, Schenectady, Chicago and Pittsburgh; Post-Conference, New York, Schenectady, Niagara Falls, Chicago, Pittsburgh and Philadelphia.

Tour IV: Pre-Conference, New York, Schenectady, Chicago and Pittsburgh; Post-Conference, New York, Schenectady, Niagara Falls, Chicago, Pittsburgh, Philadelphia.

Tour V: New York, Montreal, Ottawa, Niagara Falls, Chicago, Ft. Peck Dam, Grand Coulee, Seattle, Portland, San Francisco, Los Angeles, Boulder Dam, Knoxville and the Tennessee Valley.

MULTIPLE FELLOWSHIP OF THE PITTSBURGH PLATE GLASS COMPANY AT THE MELLON INSTITUTE

DR. EDWARD R. WEIDLEIN, director of the Mellon Institute of Industrial Research, Pittsburgh, Pa., has announced that the Pittsburgh Plate Glass Company has founded at the institute a multiple industrial fellowship.

he fellowship will study fundamental problems in various fields covered by the activities of the company. These activities include the production of plate glass, window glass, safety glass, special glasses, heavy chemicals, paints, varnishes and lacquers. These products, which have a close economic interrelationship, are also technically closely allied, so that investigation into the technology of one can become of value in its application to another. The Pittsburgh Plate Glass Company has been active in research in its various plants, and the establishment of this fellowship marks their recognition of the interdependence of technological advances and the value of centralized fundamental research.

Dr. Frederick W. Adams, who has been selected as senior incumbent of the fellowship, is from the Massachusetts Institute of Technology, where for the past fourteen years he has been a member of the department of chemical engineering, devoting most of his time to work in the School of Chemical Engineering Practice. His staff on the fellowship includes specialists in various lines of research. Dr. John D. Jenkins, who took his undergraduate work at the University of Oregon and received his Ph.D. from the University of Wisconsin, majoring in organic chemistry, leaves the Ditzler Color Company, a subsidiary of Pittsburgh Plate Glass Company in Detroit, where he has been engaged in the development and production of lacquers and industrial finishes. Dr. Harold E. Simpson, after receiving his Ph.D. at Ohio State University and spending a year in teaching at Rutgers University, has been research engineer in ceramics for the last six years at Battelle Memorial Institute. Dr. Lee Devol graduated from Marietta College and after several years of industrial experience with the Westinghouse Electric and Manufacturing Company and the Union Switch and Signal Company, completed graduate studies at the University of Pittsburgh, where he received his Ph.D. in physics. Dr. Kenneth B. McAlpine matriculated at the University of Buffalo, received his Ph.D. at Princeton University, majoring in physical chemistry, and spent several years with the Republic Steel Company at Youngstown before joining the staff of this fellowship. Phillip W. Crist graduated this year in physics from the Carnegie Institute of Technology.

Work on the various projects which are being started includes basic studies in the technology of glass, heavy chemicals, paints, varnishes and lacquers.

WORK IN THE NATURAL SCIENCES SUPPORTED BY THE ROCKEFELLER FOUNDATION

ACCORDING to the annual report the ,725,-439 was expended in 1935 by th nda-tion.