pointed by Governor Stassen late in 1940 to study the establishment of a $250,000 fund for a memorial to the Mayos. State Senator William B. Richardson, Rochester, is chairman of the commission, which is composed of seventeen representative citizens of Minnesota.

SCIENTIFIC EVENTS

AN INDUCTION ACCELERATOR

THE University of Illinois announces that it has arranged for the installation of a machine which opens new fields for scientific exploration and which, as a super x-ray, has important possibilities in medicine, industry and national defense.

It was invented by Dr. Donald W. Kerst, of the department of physics. The machine is the second of its kind, and is ten times as powerful as the first machine, which was built a year ago. Dr. Kerst was given leave of absence to enable him to superintend its construction at the laboratories of the General Electric Company in Schenectady, N. Y.

The machine is called an induction accelerator. It accelerates electrons to an energy of twenty million volts and also emits x-rays of this power. This radiation exceeds that from the existing supply of radium. The x-ray radiation is twenty times as powerful as the x-ray machines now used in hospitals and factories. The machine will be installed at the university in the new Abbott power plant.

With the induction accelerator, electrons are accelerated to a speed nearly that of light—186,000 miles a second.

Dr. W. D. Coolidge, director of the laboratories of the General Electric Company, points out that the induction accelerator provides an important new tool for fundamental research. His statement reads:

> Hitherto, experiments with high velocity electron beams have not kept pace with experiments done with positive ions from the cyclotron. The cyclotron can not accelerate electrons, and previous devices able to do so have seemed to reach a practical limit at something like one fourth the energy output of the new induction accelerator built in the General Electric laboratories for the University of Illinois.
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> The induction accelerator seems to have no limit. Apparently its effective voltage can be increased indefinitely. It works not by applying the entire voltage at once, but by building up the speed throughout all revolutions.

It is announced that plans are now being considered for an induction accelerator to create 100- or 200-million volts energy.

THE NATIONAL INVENTORS COUNCIL

RECENT short-wave broadcasts from Europe and American responses thereto have centered attention upon the part which inventions are playing in the present war.

In response to this movement, Dr. William B. Coolidge, of the National Inventors Council of the Department of Commerce, stated that the council has already examined more than 35,000 inventions and suggestions during the past year, and that of those examined, several were of extreme import and might possibly affect modern warfare.

The inventions referred to include only those which have been received by the Inventors Council. When consideration is given to the work and achievements of the Office of Scientific Research and Development and of other Government agencies engaged in defense research and development work, it is apparent that the nation's inventive genius is contributing its share to the defense effort.

Lists have been made available by the War Department suggesting fields in which new ideas would be welcome. Among these are:

- Hydrocarbon vapors as an explosive.
- Rocket-propelled projectiles.
- Air, centrifugal and electromagnet guns.
- Automatic mines for land and sea.
- Searchlights, mobile landing-field flood lighting.
- Special automotive equipment for simplifying servicing of motor vehicles and aircraft, and improved motorized repair-shop equipment.
- Improved tank design.
- Better aircraft brakes.
- Light, protective armored clothing.
- Improved automatic anti-aircraft guns and small arms.
- Aircraft catapults and retarding device.
- Ice-prevention devices.
- Refueling equipment.
- Remote-controlled aerial and marine torpedoes, land vehicles and ships, and remote control for other combat weapons.
- Improved gun- and bomb-sights, optical and otherwise.

THE NATIONAL ROSTER OF SCIENTIFIC AND SPECIALIZED PERSONNEL

THE following statement has been received from the National Roster:

The National Roster of Scientific and Specialized Personnel is now conducting a survey of the senior and graduate students of chemistry and chemical engineering in the universities of the country. It is urged that all persons with training in this or any other scientific or professional field register with the National Roster as soon as possible.

The registers of this organization, containing the

names of the scientific and professional individuals of the nation, are of the utmost importance in our present crisis. They must be replenished and kept current in order that there will always be a supply of trained men and women to handle any situation or carry on any research which is essential to our war effort. Registering with the National Roster is one way in which the trained individual can do his part. There may never arise an occasion where an individual would be asked by the Government to serve. On the other hand, there may be a time when persons with certain skills will be vital to the welfare of the nation either as full-time workers, part-time workers, or as consultants. Nothing has ever been lost through preparedness. Therefore, it is again urged that all with special training register immediately with the National Roster of Scientific and Specialized Personnel at Washington, D. C. This can be accomplished by writing to the National Roster of Scientific and Specialized Personnel in Washington, asking for necessary blanks. Also the required forms are being distributed to senior classmen in the country's colleges and universities.

THE LUCIUS N. LITTAUER FUND OF NEW YORK UNIVERSITY

NEW YORK UNIVERSITY has received nearly a quarter million dollars from Lucius N. Littauer. The gift will be used to establish "The Lucius N. Littauer Fund" in the College of Medicine. The income will be expended, as Mr. Littauer designated, "for research in psychiatry, neurology and related fields, in order to increase and diffuse knowledge of the biological and other factors which influence thought and conduct; and thereby to prevent and correct abnormal human behavior through experimental and clinical approaches."

A statement made by Chancellor Harry Woodburn Chase in regard to the gift, reads:

> A fair yet liberal part of the income will be devoted to fellowships for graduate students in medicine of superior ability, to be known as "Littauer Fellows," to be trained to practice psychiatry and those branches of medical science concerned with the activities of the mind and factors influencing it, thereby recruiting physicians specially devoted to the conservation and restoration of mental health.
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> We have a very deep appreciation of this generous gift by Mr. Littauer. For many years he has been interested in our College of Medicine and has given generously toward the support of special projects. This larger gift, coming at such a time, is heartening indeed. It is the first substantial gift which has been made to any university since our entry into the war and I can but see in it striking witness of the fact that intelligent and far-sighted citizens will not falter in their support of the purposes of higher education through this emergency.

Mr. Littauer had previously given the university nearly $120,000 for research on the prevention and cure of pneumonia; on venereal diseases, and for scholarships and fellowships in the College of Medicine, Washington Square College of Arts and Science, the College of Dentistry and other divisions of the university.

Mr. Littauer, president of the Gloversville Knitting Company and Fonda Glove Lining Company, is a former member of Congress from New York, and from 1912 to 1914 was a Regent of the University of the State of New York.

THE OBSERVATORY OF THE BUHL PLANETARIUM

THE Buhl Planetarium and Institute of Popular Science at Pittsburgh opened its new $30,000 People's Observatory on November 19. According to *Museum News,* the observatory is on the third floor of the planetarium, in two rooms separated from each other by a glass partition. The outer room, open to the air, contains the objective lens and mirror of a siderostat telescope; the inner room, kept at constant 72-degree temperature, contains the eyepiece and controls of the telescope. The objective lens, 10 inches in diameter, was made of glass imported from Europe and ground in America. There are six eyepieces ranging from 65 power to 490 power. A 12-foot horizontal steel tube supports the lens system and keeps out stray light. All this part of the telescope remains stationary. The image of the star or planet being observed is reflected to the lens by an aluminum-coated pyrex mirror 18 inches in diameter which can be set to follow automatically the movement of the celestial object. Nine electric motors power the control apparatus, which can direct the mirror to any part of the sky. The apparatus can even be set to find automatically the object wanted: the observer determines from a guidebook the celestial latitude and longitude of the object, sets the controls for that location, and starts the mirror moving; when the mirror stops the desired image appears in the eyepiece and a press on a button makes the mirror follow the movement of the object automatically. The observer stands or sits in a normal position and looks through the always horizontal apparatus; the mirror does all the adjusting. A recorded voice tells the spectator the story of the object being observed. The telescope was built by the Gaertner Scientific Corporation of Chicago.

The dedicatory address was delivered by Dr. Harlow Shapley, director of the Harvard College Obser-