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