If any reader of SCIENCE has such an instrument available to lend, lease or sell he is requested to write the undersigned.

INSTRUMENTS SOUGHT

Microammeters and electrical meters generally.
Ultra-violet microscope.
Zeiss Optimeter (for measuring fine wires to 0.00001″).
Two-circle Reflecting Goniometer (Goldschmidt).
Electro-Encephalograph (3 channel).
Warburg Apparatus.

The following instruments are offered for use by others and inquiries for them are invited:

INSTRUMENTS OFFERED

Zeiss-Pulfrich Refractometer.
Hunter Reflectometer (Infra red reflectance).
Coleman Spectrophotometer (complete).
Capacigraph (*Jour. of Laboratory and Clinical Medicine*, 22, 1279, 1937; 25, 175, 1939).
Mechanical Ink Writing Recorder (*Am. Jour. Obstetrics and Gynecology*, 40, 330, 1940).
Grating Spectrograph: Focal length 2 meters
Dispersion 8 Å/mm, 1st order.
Grating Spectrograph: Focal length 8 meters
Dispersion ¼ Å/mm. 4th order.

The Committee on Location of New and Rare Instruments of the Division of Chemistry and Chemical Technology, National Research Council, will be glad to put inquirers in appropriate contact with those who can supply their needs. In so doing it assumes no responsibility, and owners of instruments must make their own arrangements with prospective users. Correspondence should be addressed to D. H. Killeffer, 60 East 42nd Street, New York, N. Y.

PROGRESS ON THE CONSTRUCTION OF A HUNDRED MILLION VOLT ELECTRON ACCELERATOR

IN response to a request of the editor of SCIENCE, Dr. W. D. Coolidge has sent the following statement in regard to the hundred-million-volt electron accelerator developed in the research laboratory of the General Electric Company at Schenectady, N. Y.:

Because of the demonstrated value of high voltage x-rays in the present war activity, the members of The National Inventors Council, at their meeting in Schenectady on August 18 and 19, were shown the status of the work of the General Electric Research Laboratory on the construction of a large induction electron accelerator based on the pioneer work of Dr. Kerst, of the University of Illinois.

This machine will be quite similar to the twenty million volt accelerator which was built in this laboratory with Dr. Kerst's help and has been loaned by the General Electric Company to Dr. Kerst and the University of Illinois. The new accelerator is designed for a hundred million volts and has, because of its size, presented many new engineering problems.

At the present time the special building to house it is completed and so are the magnet coils and the 24,000 KVA capacitor for their supply circuit. Much of the work on the 125-ton laminated steel core is finished and all the materials except the glass parts for the six-foot toroidal vacuum tube have been received. It is hoped that the device may be brought into operation this year or early next.

As it should make available x-rays and high velocity electrons corresponding to voltages up to a hundred million, it promises to be a very useful research tool.

So far as its immediate interest in connection with the war effort is concerned, the device will make it possible to determine the potentialities in the industrial radiographic field of x-rays produced by such electron energies as it can generate. Whether the electron current in the tube and hence the x-ray intensity producible by such a device can be large enough to make it a practical radiographic tool remains to be seen.

PRESENTATION TO THE ROYAL SOCIETY

AT a meeting of the Royal Society on July 16, a gold snuff-box, once the property of Charles Blacker Vignoles, F.R.S. (1793–1875), was presented to the society by his grandsons, Mr. E. B. Vignoles and Lieutenant-Colonel W. A. Vignoles.

Mr. E. B. Vignoles, in making the presentation, referred to the fact that in 1841 C. B. Vignoles presented to the Royal Society a fine portrait of Sir Isaac Newton, which had come to him as the result of a connection between his mother's family and that of Sir Isaac.

Continuing, Mr. Vignoles said that his grandfather, who was of Huguenot descent, came of a long line of soldiers and that he was an orphan and a prisoner in French hands at the age of thirteen months. He was educated by his maternal grandfather, Dr. Charles Hutton, F.R.S., the mathematician, the author of "Hutton's Logarithms," in the preparation of which Vignoles assisted. As a young man he served for a time in the Army, taking part in the disastrous attack on Bergen-op-Zoom in 1814.

Following the peace after Waterloo, he went to America, where he was engaged on survey work in South Carolina and Florida, then very little known. Returning to England in 1823 he was soon engaged in railway engineering, almost his first work being the first survey for the proposed Liverpool and Manchester Railway.

In the course of a long career he carried out important work at home and abroad as a railway and civil engineer, including the great suspension bridge over the Dnieper at Kieff and a railway through the Cantabrian Pyrenees from Bilbao to Tudela, which with its sharp curves and bold moving of a river, struck a