

PSYCHIATRY

New Profession Pioneered

➤ A PIONEERING step toward a new profession was taken with the announcement of the fall opening of a new school which will teach psychiatry to mental hospital attendants, Dr. William C. Menninger, general secretary of the Menninger Foundation, Topeka, Kan., said.

The Menninger Foundation and the Topeka State Hospital will offer the teaching personnel and training for students. The program was made possible by a \$70,500 grant from the Rockefeller Foundation of New York.

"This is perhaps the most significant program in psychiatry today," Dr. Menninger said. He pointed out that because psychiatric aides are in direct contact with patients, their newly-acquired knowledge will benefit the sick, and make them more competent team-workers with doctors and nurses.

Under the grant, the school is established for three years, divided into two six-month semesters for each year. Students will have a six-week rotation period between the Topeka State Hospital and the psychiatric hospitals of the Menninger Clinic. No fees

will be charged, but students have to meet certain requirements because only 25 will be admitted every six months. Students must have, as a minimum, a high school education; be between 18 and 35 years of age; be free to be employed at the Topeka State Hospital; and have well adjusted personality and aptitude for leadership.

Classes will begin Oct. 1. Applications should be sent to Dr. Bernard H. Hall, director of the educational program, Menninger Foundation.

Idea for the new school originated two years ago among a group of psychiatric aides at Winter Veterans Administration Hospital. The Rockefeller Foundation contributed \$5,500 to make a pilot study of the problem in 1947. The new program is based on the findings of this study.

Dr. Karl Menninger will be director of the new school. In addition to Dr. Hall, other staff members will be: Miss Esther Lazaro, R. N., staff of the Menninger Clinic, associate director; Ream A. Lazaro, administrative assistant; and Mrs. Paul E. Pollard, secretary.

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inspiration and materials with which to work," Mr. Davis explained at the twentieth anniversary meeting at the Roscoe B. Jackson Memorial Laboratory in Bar Harbor, Me.

"America needs a great national quest for knowledge—operating in the schools and kindling the sparks of interest and genius latent in our high school youth," he declared.

Foundations for a national quest, Mr. Davis added, have been built in Science Service's Science Clubs of America, which have 15,000 clubs and a third of a million members.

"For the future of America—for peaceful living, for industrial progress, for successful democracy, for a strong and prepared nation—the quest by youth, for science understanding, must be accomplished," the Director of Science Service urged.

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ENGINEERING

Shadow Photographs Help Measure Electrical Fields

See Front Cover

➤ SHADOW photographs made under the powerful magnification of the electron microscope can now be used to measure tiny electrical or magnetic fields, scientists at the National Bureau of Standards disclosed.

The new photographs will show the direction and strength of the fields of the minute "atomic magnets" within magnetic materials.

In addition to providing a new tool for fundamental research in physics, Bureau officials said that the new technique will aid studies of equipment used in radio, radar and television.

The new "electron-optical shadow method" was developed during experiments on the magnetization of magnetic recording wire by Dr. L. L. Marton of the Bureau's electron physics laboratory. A wire net of non-magnetic material is used to cast an electron shadow on the screen of the microscope. The electrons, tiny negatively-charged particles which are one component of atoms, are deflected by the magnetic force of any magnetic object under the microscope. A photograph of the microscope's fluorescent screen can be studied to reveal the direction and force of the field.

The magnetic field about a small horseshoe magnet, photographed by means of the new electron-optical shadow technique is shown on this week's cover of the SCIENCE NEWS LETTER. The screen of an electron microscope shows the electron shadow of a fine wire mesh which is superposed on the image of the magnet, distorted by the deflection of the electrons as they pass through the field of the magnet. The total width of the magnet is about one-fourth inch.

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METEOROLOGY

Ocean Weather Stations

➤ THE locations of the ten weather stations to be maintained on the North Atlantic after July 1, 1950, for the benefit of air and surface ships on transoceanic routes have now been announced by the International Civil Aviation Organization at its headquarters in Montreal.

These ten ocean weather stations will replace 13 now in use. The new network is the result of a recent meeting of the 11 member nations most concerned, held in London earlier this year. The present agreement expires on June 30, 1950, and then the new agreement will go into effect.

Six vessel stations will be maintained by the United States, the nation most concerned, with the cooperation of Canada and The Netherlands in the case of two. One will be about midway between Labrador and the southern tip of Greenland, and another well off Greenland on the route to Iceland. Another is about midway between Newfoundland and Ireland, and a fourth located between Newfoundland and the Azores. The positions of the other two American vessels will be one well off the coast of North Carolina and the other far out in the Atlantic on the same latitude.

The two vessel stations of the United Kingdom are to the south of Iceland, the more southerly one being on the Newfoundland-London route. Still farther

south will be a French station, while a Norwegian vessel will occupy waters to the west of that country.

A total of 25 vessels will be used to maintain these ten ocean-weather-reporting stations. The United States will provide 14 of them. Cooperating with the work of these floating stations, land-based stations in the United States, Canada, Greenland and Iceland will continue. Assisting also will be a loran station on the Faroe islands between Iceland and Scotland. Loran is a war-developed navigation aid that enables air and surface ships to get their true geographical position from two widely separated radio stations by means of direction finders that give the position relative to the two stations.

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GENERAL SCIENCE

Quest for Knowledge Urged in High Schools

➤ "A GREAT national quest for knowledge" to help the million or more high school boys and girls "eager to do things in science," was proposed by Watson Davis, director of Science Service.

These science-minded high school students and their teachers "need guidance,