# News of Science

## Commission on Mental Illness

A Joint Commission on Mental Illness and Health has been organized to carry out the provisions of the Mental Health Study Act of 1955 (Public Law 182). Leo H. Bartemeier, psychiatrist of Baltimore, Md., is chairman of the trustees of the new organization. The act calls for a nation-wide "analysis and reevaluation of the human and economic problems of mental illness," to be carried out by one or more qualified nongovernmental organizations. The Congress passed the act this past session without a dissenting vote in either house.

The act authorizes appropriations of $1.25 million over 3 years, of which $250,000 has been appropriated for the first year. The money is assigned to the Surgeon General of the U.S. Public Health Service, who may grant it to nongovernmental organizations to carry out the study. Private monies may also be used. The act requires that such organizations file annual reports and a final report with the Congress, the Surgeon General, and state governors.

Bartemeier has expressed the hope that the Surgeon General would at the proper time approve the application of the Joint Commission on Mental Illness and Health as the qualified organization to execute the provisions of the Mental Health Study Act. He has pointed out that the joint commission is comprised of representatives of the leading national organizations and agencies that have a primary interest in the mental health field. Many other organizations with related interests will also be asked to participate in the work.

There has never been a thoroughgoing national study and report on all aspects of the resources, methods, and practices for diagnosing, treating, caring for, and rehabilitating the mentally ill. The joint commission was incorporated in August in the District of Columbia by a small group comprised of representatives of the American Association of Psychiatric Social Workers, American Hospital Association, American Medical Association, American Nurses Association and the National League for Nursing, American Psychiatric Association, American Psychological Association, and the National Education Association. Daniel Blain, medical director of the American Psychiatric Association, Washington, D.C., is acting executive director for the commission, and Richard J. Plunkett, secretary of the Council on Mental Health of the American Medical Association, Chicago, Ill., is acting deputy executive director.

The following have also been invited to serve as initial organizational members of the commission: American Association on Mental Deficiency, American Association of Psychiatric Clinics for Children, American Bar Association, American Occupational Therapy Association, American Public Health Association, Council of State Governments, Joint Commission on Accreditation of Hospitals, National Association for Mental Health, National Institute of Mental Health, National Rehabilitation Association, Social Science Research Council, the U.S. Children's Bureau and the Office of Vocational Rehabilitation of the Department of Health, Education, and Welfare, and the Veterans Administration. Still others will be asked as plans develop.

The first official meeting of the commission as a whole will be held in Washington, D.C., on 8 Oct. to elect officers and complete other organizational details. Shortly thereafter, an application for the grant will be submitted to the Surgeon General. If the latter acts favorably on the application, the joint commission will get the study underway before the end of the year.

## News Briefs

■ The National Bureau of Standards recently developed a method for closely packing digital pulses on magnetic tape. This method promises future useful application in the field of electronic computers. Such high-density storage can greatly reduce problem solution time by providing more rapid access to information recorded on external magnetic tape units.

In a series of experiments performed by J. R. Sorrells of the data-processing laboratory, both continuous-current and pulse techniques were investigated to achieve densities in the range of 500 to 700 pulses per inch. Recording and reading circuitry was also developed to provide large-amplitude playback signals with error-free differentiation between binary *ones* and *zeroes*.

An integral part of many large high-speed electronic computers is some type of magnetic tape or wire storage system that serves as an input-output means, as an external low-speed memory, or in some cases as both. Many types of mathematical problems require extensive external storage. In solving these problems relatively little actual computation is performed, but a great many data must be handled and assimilated by the computer. Ideally, a magnetic tape system should supply or receive data from the machine fast enough so that the computer can proceed with the problem solution at its usual rate.

In reality, however, the maximum rate at which the tape can accommodate information is usually very slow compared with the machine's internal speed, because tape velocity is limited and information is commonly stored on the tape at comparatively low density. As a consequence, the majority of problem-solution time is not spent in computation but in the performance of input-output or tape storage operations.

The bureau's investigation has been directed toward improving magnetic tape storage techniques. Such developments would permit more rapid transmission of information to the computer by increasing the number of digital pulses recorded on each inch of the tape, thereby increasing the over-all efficiency of the machine. Already in operation with the NBS electronic computer, SEAC, are tape drive units that provide high-speed starting, stopping, and reversing of magnetic tapes, together with maximum practical tape speeds.

■ The first half of the July number of *Reviews of Modern Physics*, vol. 27, No. 3, is devoted to the memorial symposium held in honor of Enrico Fermi at the Washington meeting of the American Physical Society, 29 Apr. 1955, with H. A. Bethe presiding. The paper by F. Seitz deals with Fermi statistics and its applications. E. J. Konopinski discusses "Fermi's theory of beta decay"; Emilio Segrè gives a vivid and fascinating account of Fermi's Rome period in "Fermi and neutron physics"; Walter H. Zinn, one of Fermi's collaborators in reactor development, writes on "Fermi and atomic energy"; and H. L. Anderson describes some of Fermi's later experimental work in the final paper, "Meson experiments with Enrico Fermi." Although most of the papers are addressed to an audience of physicists, nonphysicists may also read with interest the articles by Segrè and Zinn.

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