News of Science

New Affiliate of the AAAS

The American Physical Therapy Association has recently completed affiliation with the American Association for the Advancement of Science. The American Physical Therapy Association was founded in 1921 by a group of 220 World War I Reconstruction Aides as the American Women's Therapeutic Association. This name was changed to American Physiotherapy Association in 1922 and to American Physical Therapy Association in 1948. Even though the association was not founded until 1921, the profession had its beginnings more than 10 years prior to that date. Orthopedic surgeons particularly in Boston, New York, and Philadelphia, had selected graduates of schools of physical education and trained them in their offices and hospitals to take care of their patients. In 1916, when the catastrophic epidemic of poliomyelitis struck New York and New England, there was therefore a handful of individuals trained in muscle reeducation to treat the thousands paralyzed.

Physical therapy, although not designated by that name, had been established in England just prior to the turn of the century. Mary McMillan, who in 1921 became the first president of the association, received her training in England and in 1917 when World War I was declared was working in the office of E. G. Brackett, an orthopedic surgeon in Boston. She responded to an urgent telegram from Surgeon General Gorgas and organized the first physical therapy course at Walter Reed Hospital, Washington, D.C. There was already one physical therapist in the Surgeon General's office, Marguerite Sanderson. It was soon apparent that this one school could not supply the number needed, and 14 additional courses were initiated in institutions throughout the country. During World War I there were 2000 Reconstruction Aides trained and in service, with 300 serving overseas. The letters of commendation for the service given, if one did not read the dates and signatures, would be thought to have been written after World War II. General John J. Pershing wrote "The power of an army depends in a great measure upon the number of able bodied men returned to it from hospitals, which number is greatly enhanced by the proper treatment and correction or prevention of deformities resulting from injury." Secretary of War Newton D. Baker said "Your assistance to the orthopedic surgeons in helping them lay plans for the training of women to undertake the reconstruction of injured men in the hospitals; your management of their duties and your efforts to fit them into the military establishment all were to such good purpose that much pain was relieved and the number of hospital days for many men was lessened and the amount of their permanent disability was greatly reduced. This was a distinct contribution to the army and to the country. . . ." It was with this great heritage that the American Physical Therapy Association was founded and on which it has grown in numbers and in scope.

What happened to all the Reconstruction Aides, for there were only slightly more than 200 founding members? Civilian medicine was not ready to include them, and there were few employment opportunities, the reverse of which was true after World War II. Many married; others returned to their former jobs in physical education.

The profession of physical therapy grew steadily but slowly in the years between the two wars. The depression of the 1930's with its resulting low employment of all medical personnel did not materially affect physical therapy, since the numbers were still small. It was in this period, however, that an awareness of its potentials was growing. In 1941 when war was declared there were less than 1200 qualified physical therapists in the country. All efforts of the association were then channeled to meet the needs of the armed services. Emergency educational programs were initiated in seven Army hospitals, and all 15 civilian schools accelerated their courses. By 1945 the number of students enrolled was slightly more than 1000, almost equal to the entire number available in 1941. More than 1600 physical therapists served in the armed forces; 1532 were in the Army. This number was two-thirds of the association's membership in 1945. More than 800 saw overseas service.

The association, while directing every effort toward meeting the needs of the armed forces, recognized that civilian needs were not being fulfilled and that some thought must be given to preparing for a transition from a war-accelerated educational program to a peacetime one. Many schools thought there would be an oversupply of physical therapists and planned to reduce their capacity. It was soon apparent that there was no oversupply, in fact the shortage had begun.

During the past 10 years physical therapy has emerged as a science as well as an art. Physical therapy education has achieved academic recognition with a 4-year program leading to a baccalaureate degree. Programs leading to a master's degree have been established, and an increasing number of the profession have achieved their doctorate or are engaged in a doctoral program. Research in the sciences basic to physical therapy, such as anatomy and physiology, as well as research in the techniques of physical therapy, is attracting recruits.

In 1950 the association initiated a 3-year student-selection research program conducted by the New York University Testing and Advisement Center. Some of the long-range objectives of the program were designed (i) to provide matriculants of high calibre in physical therapy schools, (ii) to provide hospital departments and other installations with more effective physical therapy staff, (iii) to accord the field of physical therapy a higher professional status through the utilization of scientific selection and placement procedures similar to those currently in use for medicine, law, and other professions. Tests were administered to 1128 students beginning professional physical therapy study in 1950, 1951, and 1952. The report of the program was published in the *Physical Therapy Review* (Sept. and Oct. 1954).

In 1953 the association was asked by the Epidemiological Service of the U.S. Public Health Service to participate in a country-wide study of the efficacy of gamma globulin for household contacts of an acute polio patient. Two muscle evaluations of a household contact, diagnosed as polio, one at 7 to 10 days after onset and the second 50 to 70 days after onset were requested to assist in determining whether or not the patient had paralytic polio and the severity of paralysis. These tests proved to be of significant value in the study to the extent that in 1954 the association was asked by the National Foundation for Infantile Paralysis to select and train physical therapists to play a similar role in the now epochal Salk Vaccine Field Trials. Seventy-two physical therapists were prepared to perform two muscle evaluations on children diagnosed as polio cases who had received the vaccine or who were in the control groups. It was not known to the examiner whether the child had received vaccine or placebo. These tests were given 10 to 15 days after onset and again in 50 to 70 days. Results were forwarded to Thomas Francis, Jr., director,

Poliomyelitis Evaluation Center, University of Michigan, for use in his evaluation study. Once again the muscle evaluation proved to be a significant factor in determining the number of cases, the degree and severity of paralytic polio cases in the study on which Francis established the effectiveness of the vaccine in the three types of polio. The foundation granted funds to the association to carry out its role in these two important research projects. It appears particularly fitting that the profession of physical therapy, which has been intimately concerned with the treatment of paralytic polio since 1911 when the muscle test was first developed, should play an important role in the field trials of a vaccine that gives every evidence of bringing about the control of this crippling disease.

The association now has 6780 members with chapters in the 48 states, District of Columbia, Puerto Rico, Alaska, and Hawaii. Its official publication, the *Physical Therapy Review,* has a circulation of 7000 with subscribers in 47 countries. It is a member of the National Health Council and maintains cooperative relationships through committees and consultants with the American Hospital Association, the American Medical Association, Women's Medical Specialist Corps U.S. Army, Veterans Administration, Office of Vocational Rehabilitation, Children's Bureau, American Registry of Physical Therapists, and such voluntary agencies as National Foundation for Infantile Paralysis, National Society for Crippled Children and Adults, United Cerebral Palsy, and National Rehabilitation Association.

Each year the association holds an annual conference and also sponsors institutes and other study opportunities for its members. This year the American Hospital Association and the APTA conducted an Institute on Supervision and Administration, and an Institute on the Correlation of the Basic Sciences, Anatomy, Physiology, and Physics with Kinesiology was sponsored jointly with the Office of Vocational Rehabilitation.

The association is a founding member of the World Confederation for Physical Therapy and its executive director is the first president. The association will be host to the second congress of the World Confederation for Physical Therapy in June 1956.

The profession of physical therapy is still growing. The awareness of the Government and people of the United States of the importance of rehabilitating its handicapped citizens, young and old, rich and poor, has set new goals and challenges for the profession in meeting the needs of the people qualitatively and quantitatively. These challenges are accepted with confidence based on the history of the association. The members today, like those in the past, are, through continued study, basic and clinical research, ever seeking and putting into practice, under the direction of the physician and in cooperation with coworkers in other professions, methods of treatment that will prevent disability and hasten maximum recovery of our handicapped citizens.

MILDRED ELSON, *Executive Director*
1790 Broadway, New York, N.Y.

Soviet Invitation

On 13 June the following telegram was received by Detlev W. Bronk, president of the U.S. National Academy of Sciences, from the Academy of Sciences of the U.S.S.R.: "USSR Academy of Sciences holds its session on peaceful uses of atomic energy in Moscow 1–5 July 1955. Presidium of academy will be glad if National Academy of Sciences deems it possible to send three of their scientists working in that field to this session as our two weeks guests. All expenses connected with their stay here including those of travel throughout USSR will be paid by academy."

Bronk's reply to Academician Nesmeyanov, president of the U.S.S.R. Academy of Sciences, read: "Council of National Academy of Sciences appreciates invitation USSR Academy of Sciences to send three scientists to your session on peaceful uses of atomic energy in Moscow 1 to 5 July 1955. Shortness of time and preoccupation of qualified individuals with preparations for conference on same subject to be held in Geneva during August makes acceptance impossible. I am confident that Geneva conference will provide desired opportunity for exchange of information in this field."

International Observatory Program

Six observatories in as many countries began sharing observing time and taking part in the program of the Boyden Station in South Africa on 1 July, Donald H. Menzel, director of the Harvard College Observatory, has announced. In addition to Harvard Observatory, which established the original Boyden Station at Arequipa, Peru, in 1890, the observatories cooperating in this international program are Armagh, North Ireland; Dunsink, Eire; Hamburg-Bergedorf, Germany; Stockholm, Sweden; and Uccle, Belgium. The agreement among them was worked out at a meeting in Hamburg last summer.

The agreement followed a decision made in January 1953 by the administration of Harvard University to the effect that it could no longer support the observatory in South Africa. Harvard provided funds for the intervening 2 years, however, while astronomers in several countries sought a plan for continued operation of the station, which is situated at one of the best observation points in the Southern Hemisphere. The agreement, Menzel noted, is of importance to observational astronomy, since there are relatively few large observatories in the Southern Hemisphere, and the loss of even one would be serious.

Under a 2-year interim agreement, which may later become permanent, the six cooperating observatories have set up a plan that permits joint management of the Boyden Station and provides for its operating cost. Scientific control of the station rests in an administrative council, composed of the directors of the six observatories. The directors, in addition to Menzel, are H. A. Bruck, Dunsink; Bertil Lindblad, Stockholm; P. Bourgeois, Royal Observatory, Belgium; Otto Heckmann, Hamburger Sternwarte and Eric Lindsay, Armagh.

In recent years, Hamburg and Stockholm observatories have both contributed much to the systematic classification of stellar spectra; Uccle has been a center for asteroid observation, while Armagh has been concerned with galactic research and Dunsink with photoelectric and spectrographic work. Use of the Boyden Station will permit further extension of these activities in the southern sky.

AAAS Committees and Representatives for 1955

(Numerals in parentheses indicate year of expiration of term.)

Standing Committees

Affiliation and Association: (1955) L. V. Domm, chairman, Loyola University, Chicago; (1956) Fernandus Payne, Indiana University; (1957) I. Melville Stein, Leeds and Northrup Company, Philadelphia; (1958) Howard A. Meyerhoff, Scientific Manpower Commission; (1959) Herbert Carter, University of Illinois; Dael Wolfle, *ex officio*

AAAS Meetings: Leonard Carmichael, Smithsonian Institution; Bernard D. Davis, New York University College of Medicine; John E. Ivey, Jr., Southern Regional Education Board, Atlanta; Harry C. Kelly, National Science Foundation; Howard M. Phillips, Emory University; Raymond L. Taylor, *ex officio*; Dael Wolfle, *ex officio*

Executive: Warren Weaver, *chairman*, Rockefeller Foundation; retiring president and chairman of the board of directors, AAAS; George W. Beadle, California Institute of Technology; president, AAAS; Paul B. Sears, Yale Universtiy;