Report on Science Legislation

Physical Society of Pittsburgh

(1) *National Science Foundation.* We believe that there should be created an authority (National Science Foundation), hereinafter called the Organization, whose duty it would be to promote the fundamental and basic sciences in the interest of adequate national defense, of improved public health, of more effective use of our natural resources, and the increase of our scientific and industrial productivity in both quality and quantity.

(2) *Utilization of Existing Scientific Associations.* We believe that the Organization should make full use of the many recognized scientific, technical, and engineering associations that have come into existence in this country during the past decades because we feel that the membership of those groups includes the more active and capable of our scientific and technical people.

(3) *Duty of the Organization.* We believe that the primary duty of the Organization should be to foster the development of the so-called natural sciences, that is, physics, chemistry, mathematics, medicine, and biology, to name a few.

We recognize the fact that a number of eminent people believe that the scope of a National Science Foundation should include not only the "natural sciences" but also the "social sciences," such as psychology, economics, sociology, political science, anthropology, and history, for example. However, we believe that the objectives and technics of research and development in the social sciences are so different from those customary in the natural sciences that investigations in the former field should be supported by a separate authority set up for the purpose and which would be coordinate in every way with the Organization herein proposed. However, in the event that a separate authority is not feasible, we strongly recommend that the support of social science research should be included among the duties of the Organization coordinate with that of the major divisions of the natural sciences.

(4) *Liaison Between Physical and Social Sciences.* We believe that an important function of the Organization should be the development of an effective liaison between those interested primarily in the natural sciences and those working in the social sciences.

(5) *Patent Policy.* We believe that the legislation covering the establishment of the proposed Organization should not attempt to change the present basic patent policy of the Government.

(6) *Selection of Governing Board.* We believe that it is of the utmost importance to have the Organization administered by men of the highest competence, completely independent of the influence of any special group. Although several types of organization could be set up to achieve this objective, it is our opinion that the work of the Organization should be administered by a Governing Board appointed by the President from a panel of scientific people recommended through existing scientific associations and that the Director of the Organization should be chosen by the Board and be responsible to it.

(7) *Compensation and Term of Office of Board Members.* We believe that the work of the Board would be of such magnitude, importance, and complexity that the members should give it their full time and should be paid accordingly. It is our opinion that the Board should be a continuing Board and that the normal term of office of individual members should be not less than six years. The Governing Board should be authorized to enlist the aid of qualified scientific advisers and be responsible for their remuneration.

(8) *Administration of Funds.* We believe that the Board should be entrusted with the administration of all funds appropriated to the Organization and with the award of contracts for research work, development work, purchase of equipment, modification of existing facilities or creation of new, and for such other purposes as might be necessary to the prosecution of investigations sponsored by the Organization in either nonprofit or industrial organizations.

(9) *Selection of Scientific Personnel and Projects.* We believe that the Organization should assist in the discovery and training of men and women possessing unusual abilities together with the special aptitudes necessary to creative scientific work in the fields of natural science research, and that to these

Many learned societies which customarily have not concerned themselves **with public affairs as distinguished from subject-matter studies have, in recent months, put time and energy into planning solutions of public problems of interest to scientists. This event alone is characteristic of our time and, as such, deserves notice in these columns. The views of every group taking concerted action cannot be mentioned here—but the official report of the Physical Society of Pittsburgh, one of the oldest physics groups of the country, accepted at its 200th meeting a short time ago might serve as a model to others whether they agree with the details or not.**

ends the Board should be empowered to award scholarships to selected students and grants-in-aid to individual science workers. We feel that the selection of scientific personnel and projects will tax the skill and vision of even the ablest Board and that on the wisdom of their choices will depend the long-range success of the proposed effort to improve the scientific stature of our nation.

(10) *Collaboration With Government Representatives.* We believe that government representatives, Naval, Military, and others, should cooperate with the Board in advisory capacities only; that it should be the policy of the Board to seek the advice of, and to collaborate with, such representatives; that there should be no ex-officio members on the Board and that no Board member should hold any other government or private position either elective or appointive.

(11) *Publication Policy.* We believe that the Board should be responsible for publication of technical reports covering the results of researches under its sponsorship either in existing scientific and technical journals, in a publication of its own, or both. The Board should also be responsible for special publications designed to assist both the public and the Government to understand and apply effectively such developments in the fundamental or basic sciences as may arise from researches supported by the Organization.

(12) Finally, we believe that the powers vested in the Organization as well as its basic policies should be such as to assist the normal scientific activities of either individuals or organizations. We wish strongly to emphasize our conviction that the proposed Organization could best serve the nation by assisting in the creation of an environment favorable to independent thought and creative activity in the fields of both fundamental science and basic technological development, and by aiding the body politic to assimilate and benefit from the results of scientific achievements, whatever their origin.

Obituary

Theodore Crété Burnett
1861-1945

Theodore Crété Burnett, associate professor of physiology, emeritus, of the University of California, died in Oakland on 18 December 1945, twelve days after his eighty-fourth birthday.

He was born in Brooklyn, New York, on 6 December 1861, of a family which had settled in Long Island in 1643. After private preparation he entered the College of Physicians and Surgeons of Columbia University and obtained his M.D. in 1887. He practiced medicine for a few years, but contracted tuberculosis and came to California to spend what his doctors had told him would be the last six months of his life. He began to recuperate and while in Mt. Shasta City met, during the summer holidays, J. B. MacCallum, the enthusiastic assistant of Jacques Loeb. Loeb had just been called to the University of California to head the Department of Physiology with the express purpose of organizing and directing research. Dr. Burnett offered his services as assistant without salary in the fall of 1903, and so began his association with the University of California. After Loeb's withdrawal in 1910, Dr. Burnett was placed on the staff as instructor and remained a teaching member of the faculty even after his retirement as associate professor in 1929, since he continued generously and voluntarily to assist in laboratory sections where help was needed until about 1935. He eventually made his home in Carmel, California. As he approached his eightieth year, his health began to fail, and he was virtually confined to his bed for the past three years.

Dr. Burnett's early scientific work shows the influence of Loeb. His first paper (1906) was entitled "The influence of temperature on striped muscle, and its relation to chemical reaction velocity," and his second (1907) attempted to answer the question: "Can sea water maintain the beat of the heart of fresh water animals?" For the next fifteen years one or more publications bearing his name appeared each year. About 1913 he became interested in the effect on cancer of such substances as lecithin, cholesterol, and extracts of the pituitary, much of the work being done in collaboration with T. B. Robertson. Experiments on liver catalase, begun in 1918, led finally to publication of work on the use of liver extracts in the treatment of hypertension in 1929. His last paper, which appeared the following year, was on the absorption of pituitrin by the stomach.

The passing of Dr. T. C. Burnett breaks the last direct link connecting the present generation of physiologists in the University of California with the period when Jacques Loeb gave such impetus here to original investigation.

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