more important than the health of the nation, there is no urgent reason at the present time for insisting upon a great increment in either the scope or the expenditures for federal health. It is even of doubtful expediency to advocate a new executive department devoted to the subject, ideal as that might be. It is, however, eminently practical and entirely feasible to suggest that those bureaus already actually doing public health work should be more efficaciously coordinated. This would mean no branching out; if properly consummated it could demonstrate real economy, as well as more efficient production with the same facilities. Certainly we can agree that some form of correlation is desirable, in fact essential, and that whatever form of coordination appears best, it should be administered under central direction, possibly by an assistant secretary of public health. Such an official should be, moreover, a trained sanitarian.

To outline in detail a plan for this correlation of federal health resources would be premature. Such a proposal must come only after a most thorough examination of the existing organization and activities of the various bureaus concerned. An intensive survey of our present federal health work is now being made under the auspices of the Institute for Government Research of Washington, D. C., which has been studying the organization of the government for the past ten years. A report will be issued in the fall of this year. The next step will then be to formulate a practical plan, based on a complete knowledge of the facts. To accomplish this, the advice of many government officials, experts in political science, leading sanitarians, members of the medical profession, and scientists generally must be secured. After a plan has been agreed upon, as far as possible, the final step is to induce Congress to adopt it, and in adopting it not to amend it too drastically. This program may require several years, but the goal seems worth the effort.

Public health is of no less importance in the affairs of this nation than is commerce, labor, agriculture, public works, finance, foreign affairs, the common defense or justice. All these important aspects of government have been properly accorded the recognition due them, but the same can not be said for health or education. A deficient national vitality reduces the scope and significance of all these other elements, for an A1 nation can not be produced on a C3 vitality, and ours, advanced as it is, still leaves considerable to be desired. It seems not unreasonable, therefore, to hope and expect that the public health will be recognized on a plane equivalent to these other undeniably significant phases of government. When it is considered that some fifteen million dollars is expended annually by our national government on health matters, but that more than three times as much, or about fifty millions, is appropriated for medical relief, the thought will not down that possibly a more efficient system of prevention would reduce the amount needed for cure. This fifteen millions is, furthermore, only one half of one per cent of our total yearly budget of over three billion dollars. An economy which by curtailing funds for prevention makes necessary inflated grants for relief is a false economy.

Science has nowhere to its credit any greater achievements than in the domain of public health. The future in the age-long struggle for the prolongation of human life, the promotion of health and happiness and the enjoyment of living, and the enhancement of national vitality and virility holds out many alluring and fascinating possibilities. For the most effective accomplishment, a true type of scientific leadership is essential and this can best be furnished by a unified, efficiently organized, properly manned, adequately supported federal health service, which could, furthermore, supply this needed impetus, this scientific guidance, without interfering in any way with the autonomy of the states in public health.

"Give me health and a day," wrote Ralph Waldo Emerson, "and I will make the pomp of emperors ridiculous." And so the people of this country, paraphrasing the words of the great philosopher, may say to their Congress, "Give us health and a day and we will make this, the United States, the greatest and the most mighty of the nations in the history of civilization."

JAMES A. TOBEY
INSTITUTE FOR GOVERNMENT RESEARCH,
WASHINGTON, D. C.

JAY BACKUS WOODWORTH[1]

ON August 4, 1925, Jay Backus Woodworth passed away in the sixty-first year of his age, after a disabling illness of nine months. He was the son of the Reverend Allen Beach Woodworth and was born at Newfield, New York, January 2, 1865. As a boy, Woodworth became engrossed in the geological phenomena of his native state; on its hillsides was developed his love for outdoor nature, an enthusiasm for securing first-hand facts by observation in the field. This essential for a successful career in geology was always his own guiding principle and, with word and numberless self-sacrificing acts, he taught the principle to the thousands of Harvard men who took his courses.

[1] Minute placed upon the records of the Faculty of Arts and Sciences, Harvard University, at the meeting of October 27, 1925.

After a few years spent in the business world, Woodworth entered the Lawrence Scientific School, to begin his technical training. His worth was speedily recognized by Nathaniel S. Shaler, who appointed him his personal assistant in a prolonged study of the geology of the New England coast, and in 1890 secured Woodworth's appointment as assistant in geology. Three years later Woodworth was promoted to an independent instructorship. He received the degree of S.B. *cum laude* in 1894. He became assistant professor in 1901, and associate professor in 1912. Throughout much of the time since 1890 he was connected with the United States Geological Survey; the results of this national service have been published in a series of memoirs, but one of the most important of these is now awaiting publication at Washington.

Woodworth's researches were largely concerned with glacial geology, in which he became the recognized authority for New England. As a labor of love, he undertook the rather arduous task of organizing and continuously administering the Harvard Seismographic Station, which has been in uninterrupted operation since 1908. Woodworth was one of the American pioneers in the scientific study of earthquakes; the records from his station are among those most prized by the seismologists of the whole world. A special feature of his records is their accurate timing, for which he secured the vital cooperation of the Harvard Astronomical Observatory. As our leading expert on seismology, Woodworth's opinion that neither human history nor the relevant facts of geology indicate serious danger for the city of Boston from earthquakes is significant.

Another of his leading contributions to science was a prolonged exploration in the geology of Brazil and other parts of South America. This expedition was financed by the Shaler Memorial Fund, which is controlled by the division of geology. It is appropriate that Woodworth was the first investigator to be aided by this fund, for he was the trusted friend of his master, Shaler, who organized the present department of geology and geography at the university. The outstanding result of the South American expedition was addition to our knowledge of the remarkable glaciation of Argentina and Southern Brazil near the close of the Paleozoic Era. Other results refer to the structure of the earth's crust in the southern continent. Woodworth had already done much work on the structural geology of New England.

So much for his service to the university, the place of research. Perhaps even more valuable was his service to the college, the place of training in the elements of thinking. For nearly thirty-five years he gave his time and energy unstintedly to the hundreds of undergraduates who each year have thronged the geological laboratories. Others enjoyed the privilege of his leadership during many years when the summer course of field geology was held in Montana. It is impossible to describe adequately the benefit to the college of Woodworth's unceasing humanness, patience and abiding interest in the host of his students.

Woodworth was a member of the National Research Council, his most important contribution to the work of the council being perhaps his service as chairman of the committee on the use of seismographs in war, 1917–18. He was active in the American Association for the Advancement of Science and in the administration of the Geological Society of America, of which he was long a fellow. He was a member of the American Academy of Arts and Sciences; past president of the Seismological Society of America; a member of the Washington Academy of Sciences, of the American Geophysical Union, the Meteorological Society of America, Boston Society of Natural History and other societies.

Woodworth's colleagues in the division of geology knew best his full worth and specially mourn the loss of a valued friend and a many-sided worker, whose place no one man can fill.

REGINALD A. DALY,
CHARLES PALACHE,
KIRTLEY F. MATHER,
Committee.

SCIENTIFIC EVENTS

THE INSTITUTE FOR THE STUDY OF THE HISTORY OF CIVILIZATION

AT Oslo, Norway, the Institutet for Sammenlignende Kulturforskning (Institute for the Study of the History of Civilization) completed the following courses on October 21, 1925:

Boas (New York): Primitive art.
Karlgren (Göteborg): Sprokvetenskapen och det gamla China.
Mauss (Paris): La notion de civilisation primitive.
Meinhof (Hamburg): Die Religionen der afrikanischen Völker.
Starbuck (Iowa, U. S. A.): Introduction to the science of religion.
A. W. Brogger (Oslo): Den norske oldtidskultur.
Chr. Collin (Oslo): Folkenes fromgang of forfall.

The institute announces the following purpose: The Institute for Comparative Research in Human Culture shall be a free and independent institution having as its object the promotion of research within the fields denoted by its title: comparative study of