The American Association for the Advancement of Science:

A Brief Historical Sketch

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SOON AFTER THE FIRST PERMANENT settlements in this western world, our hardy predecessors began to establish churches, schools, and scientific societies. Harvard College was founded in 1636, and in 1743 Benjamin Franklin organized an informal scientific society which later became the American Philosophical Society.

After the colonists attained their political independence and a stable government, they directed their attention to improving education and advancing science. In the constitution of the Commonwealth of Massachusetts, adopted in 1780, we find: ". . . it shall be the duty of Legislatures and Magistrates, in all future periods of this Commonwealth, to cherish the interests of literature and the sciences, and all seminaries of them . . . to encourage private societies and public institutions, rewards and immunities, for the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and a natural history of the country. . . ." With the riches and mysteries of an unknown continent stretching before them, they naturally were most interested in geology and natural history. Between 1823 and 1839 the legislatures of 17 states made provisions for geological surveys. These interests led to the founding of geological societies, all of which soon ceased to exist.

Even more ambitious plans for national scientific societies were launched in the same period and resulted in greater failures. In 1816 the Columbian Institute for the Promotion of Arts and Sciences was founded, among whose officers and members there were John Quincy Adams, Daniel Webster, Henry Clay, and other prominent men of the day. With the passing of its original moving spirits, it became moribund by 1825 and was succeeded by the National Institution for the Promotion of Science. This new society held one meeting (in 1844) which was attended by officials of the highest rank in governmental circles. Its founding was a valiant attempt to organize science under central political sponsorship, but it also failed without an appreciable effect upon American science and culture.

In 1831 the British Association for the Advancement of Science was established by British scientists. A distinguished citizen of Boston, Dr. John Collins Warren, attended a meeting of the British Association in 1837 and presented a paper. He was so greatly impressed by the meeting that upon his return to the United States he promptly undertook to promote the organization of a similar society in this country. Finally, the Association of American Geologists, at its last meeting on September 24, 1847, passed a resolution to transform itself into the "American Association for the Promotion (later, Advancement) of Science," an organization "designed to embrace all laborers in Physical Science and Natural History."

The following year, at 12 o'clock on September 20, 1848, under the chairmanship of Prof. William B. Rogers, the Constitution and Rules of Order of the new society were read and adopted, and thus the American Association for the Advancement of Science was established. Its initial membership was 461.

The second meeting of the Association was held in Cambridge, Massachusetts, in 1849 under the presidency of Joseph Henry and with a greatly expanded program. In 1850 the Association held two meetings, one in Charleston, South Carolina, in March, and one in New Haven, Connecticut, in August. The proceedings of the meetings filled a volume of 629 pages. The membership of the Association had increased to 684, and the new society, national in scope and comprising all sciences, was well on its way to success.

In the decade from 1851 to 1860, inclusive, the Association held 10 meetings, one of which was in Montreal, the first AAAS meeting held in Canada. Louis Agassiz, the famous Swiss zoologist, was president of the Association in 1851. The fields of specialization of the other presidents of the decade were physics, anthropology, botany, geology, chemistry, medicine, and astronomy. The horizons of specialists in every field were broadened by the variety of the subjects discussed by the foremost American scientists of the day. In this and the immediately preceding periods, such far-reaching and various scientific advances had been made as the synthesis of an organic compound by Wöhler, the geological uniformities noted by Lyell, the conservation of energy by Mayer and Joule, its extension to the organic world by Helmholtz, the cell theory by Schleiden and Schwann, the relations between electricity and magnetism by Faraday and Joseph Henry, and the first revolutionary excursions by Darwin, Wallace, and Spencer into the fields of organic evolution. As to technological ap-

plications of science, it was in this period that Morse invented the telegraph, Daguerre succeeded in photography, and Long and others introduced ether, chloroform, and other compounds to produce anesthesia.

Clearly, in these years the soundness of the plan of organization of the AAAS was established, the value of its meeting was beyond question, its support by scientists of the highest standing was enthusiastic and unfailing. A new era in cooperative organized American science was well under way.

The first timidly hopeful years of the Association were succeeded by others of increasing confidence in its mission and its success. There were, however, trying periods. In the second decade in the life of the Association the Civil War between the North and the South broke out. Those who had cooperated in winning their independence and establishing an orderly government, and in organizing science on a national scale, suddenly became enemies.

For 5 years the Association held no meetings, it published no journals or reports, its organization was shattered. Yet the memory of 12 successful earlier years (1848–60) remained, and in 1866 a meeting was held in Buffalo, New York. It was not such a meeting as had been held in earlier years; nor was the meeting in Burlington, Vermont, in the following year. Only 75 papers were presented at the Burlington meeting, and the membership of the Association had declined from 641 to 415.

The vitality of the Association did not fully return until about a decade after the close of the Civil War. By 1875 the membership of the Association had increased to 807; by 1880 it was 1,555; in 1890 it was 1,944 and remained at about that level until 1900. The number of papers presented at meetings in these 20 years ranged from about 200 to 400.

Beginning with 1900, the membership and influence of the Association rapidly increased, and at the outbreak of World War I the membership was 8,325. In this period the meetings were correspondingly larger and better than in earlier years. During the war the Association continued to function on a somewhat limited scale, but immediately after its close the membership and influence of the AAAS again increased rapidly, for science had been a very important factor in winning the war. In the decade 1920–30 the paid-up membership of the Association increased from about 10,000 to about 18,000. Then, for nearly a decade it changed very little, after which it increased steadily during World War II and more rapidly after its close. The present membership exceeds 40,000.

With the rapid growth of science in recent decades many societies in special fields became so large that it was necessary for them to hold meetings of their own. Most of them grew out of sections of the Association and are affiliated with the Association, having representatives on its Council, its supreme governing body. The total membership of the affiliated societies is several hundred thousand. With the necessity for separate meetings, some of the advantages of joint meetings of scientists in related fields are lost. Scientific statesmanship is now required in establishing relations among scientific societies in order that science may measure up to its possibilities of service to society.

In partial preparation for this high purpose, the Association in 1946 purchased, with funds it had saved from operations and gifts from its members, a very desirable and adequate site for a permanent Science Home in Washington. It now begins the second century of its existence with pride in its past and a deep sense of responsibility for its future and the future of science and civilization.

Pictured on the cover of this week's issue of *Science* are two men who have for many years been interested in the activities of the AAAS—L. O. Howard (*left*), former chief entomologist of the U. S. Department of Agriculture, who was permanent secretary of the Association from 1898 to 1919 and its president in 1920; and Liberty Hyde Bailey (*right*), emeritus professor of agriculture at Cornell University and director of the Bailey Hortorium, who was the 1926 president of the Association. For these men, the oldest living past presidents of the AAAS, "A Century of American Science" will have great meaning. Dr. Howard celebrated his 91st birthday on June 11 of this year; Dr. Bailey, his 90th, on March 15.