KARL T. COMPTON, first chairman of the AIP Governing Board (1931–36), is now chairman of the corporation of the Massachusetts Institute of Technology.

JOHN T. TATE was the AIP's second chairman (1936–39). Professor Tate acted as advisor on publications for the AIP until his death in 1950.

GEORGE B. PEGRAM, treasurer and member of the Governing Board of the AIP and treasurer of the Physical Society, is vice president of Columbia University.

the AMERICAN

HENRY A. BARTON has been director of the American Institute of Physics since it was founded in 1931.

WALLACE WATERFALL, executive secretary of the American Institute of Physics, is secretary of the Acoustical Society of America.

AUL E. KLOPSTEG, who served as the AIP's third airman (1940–47), is now director of research at the echnological Institute of Northwestern University.

GEORGE R. HARRISON, present chairman of the AIP Governing Board, is dean of science at the Massachusetts Institute of Technology. *Fabian Bachrach.*

NSTITUTE of PHYSICS

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FOR THE PAST TWO DECADES the American Institute of Physics has served as the cooperative and unifying agency of the several professional Societies representing physicists in the United States. The Institute was created in 1931 by the joint action of the American Physical Society, the Optical Society of America, the Acoustical Society of America, and the Society of Rheology. These Societies, together with the American Association of Physics Teachers, are the corporate members of the Institute. In a sense, the Societies' decision to join in this act of federation was a reaffirmation of the concept of the word "physics" itself, for although plural both in origin and form, "physics" is used as a singular noun and implies an over-all unity of several specialized sciences.

The movement to form a unifying organization of the Societies received considerable impetus in 1931 when the Chemical Foundation, a nonprofit organization devoted to the advancement of chemical and allied sciences and industry, offered to underwrite the initial expense of setting up the American Institute of Physics. On October 1st of the same year the Institute began its operations in an office provided by the Chemical Foundation at 654 Madison Avenue in New York City. H. A. Barton, who has served as director of the AIP during its entire lifetime, was recruited from the faculty of the Cornell University physics department to head the work of the new office.

In 1932, the Institute was incorporated under the laws of the State of New York, and the American Association of Physics Teachers joined the other four Societies as a Founding Member of the AIP. Management

of the business of the Institute was invested under its constitution in a Governing Board, provision originally being made for the election of three members to the Board from each Society. As first incorporated, the Institute had no individual members of its own, but was simply a service organization acting through its Governing Board to do those things which could be more efficiently done centrally than by the Societies separately.

For a time the Institute offices were located in a loft building on East 38th Street in New York City, but in 1936, the year of its fifth anniversary celebration, the AIP moved to the Flatiron Building at the intersection of Broadway and Fifth Avenue at 23rd Street, a location in which it remained during the following eight years. On August 20, 1943, by means of the generous contributions of thousands of individual members of the Founder Societies, a five-story building at 57 East 55th Street was purchased by the Institute and has served as the AIP headquarters ever since.

By 1944, the widespread tendency of highly specialized groups to isolate themselves from the rest of physics had given rise to some criticism and considerable alarm among those who felt that progress in physics could best be assured by preserving the bonds that had traditionally united physicists, regardless of their particular research interests. The Policy Committee of the American Institute of Physics was assigned the task of studying the problem and working out some concrete plan for its solution.

In the following year a proposal for the Institute's reorganization was presented and adopted whereby each member of the Founder Societies was automatically and without personal cost to become a member of the Institute. At the same time a grade of "Associate Membership" in the Institute was established for those interested in physics, but not sufficiently active in any special branch of physics to desire membership in one of the Member Societies. The aim of the plan was to bring physicists together into a single group fully representative of the science of physics in order to develop their "professional consciousness, sense of responsibility, and strength". A second step considered essential in the plan for reorganization was a change in the constitution of the Governing Board. Instead of each Society being equally represented on the Board, a system of proportional representation was introduced so that the number of Governing Board Members from each Society reflected the relative number of members belonging to the Society. Provision was also made for the election by the entire AIP membership of three Members-at-Large. Another matter that was felt to be important in unifying the societies was the proposal to create a reportorial journal of a relatively non-technical character to be circulated to all members of the Institute.

Journal publication has been an important part of the functioning of each of the Societies during their life histories, and with the founding of the Institute of Physics much of the responsibility for publication of the various physics journals was transferred by the Societies to the Institute, which established its own centralized publication office for the purpose. Thus, *The Physical Review* and *Reviews of Modern Physics* are published by the Institute for the Physical Society, the *Journal of the Optical Society of America* for the OSA, *The Journal of the Acoustical Society of America* for the ASA, and the *American Journal of Physics* for the American Association of Physics Teachers. Ownership and editorial control has in each case been retained by the Society concerned, but the Institute is responsible for all of the miscellaneous matters connected with journal publication, from the routines of magazine production to those of circulation. Immediate benefits to the Societies were derived under the single publishing program as carried out by the AIP. Important savings in publishing costs, for instance, are possible under the present system that would not be possible if the Societies operated separately. Furthermore, the single editorial office has facilitated the establishment of relatively consistent standards of notation and nomenclature, and of reasonable uniformity in the presenting of scientific information. The American Institute of Physics *Style Manual,* published earlier this year and now available to authors planning to submit scientific papers to Institute journals, is the result of a cooperative effort of the AIP and the Societies aimed at improving scientific publishing standards.

During the past several years four other journals have been added to the list of Institute publications. *The Review of Scientific Instruments,* originally started in 1930 by the Optical Society of America, was first published by the Institute for the OSA on the same basis as the other Society journals, but since 1937 both financial and editorial responsibility for *The Review* have been assumed by the Institute. It is edited by Gaylord P. Harnwell, professor of physics at the University of Pennsylvania.

The *Journal of Applied Physics* appears monthly under the editorship of Elmer Hutchisson, dean of science at the Case Institute of Technology in Cleveland, and is a publication of the Institute itself. An outgrowth of the journal *Physics,* formerly a publication of the American Physical Society, the journal is concerned primarily with the useful applications of physics as the science basic to other natural sciences and to engineering and industry.

The Journal of Chemical Physics, a monthly technical journal, is also published by the Institute without being related in any formal way with a Founder Society. Its contents, however, are mostly contributed by (and of interest to) the members of the Division of Chemical Physics of the American Physical Society. Founded primarily to provide a more appropriate medium for the publication of papers dealing with subjects in the borderland between physics and chemistry than had been offered by any other journal in either physics or chemistry, it has helped considerably in defining the range of chemical physics as a separate field of research. It is edited by Joseph E. Mayer.

Physics Today, the ninth journal published by the AIP, was established in 1948 in response to the Insti-

tute's need for a nonspecialized news and discussion journal. *Physics Today* was at first distributed to the entire Institute membership, but it soon became evident that the financial burden represented by this arrangement was too great for the Institute to bear. At present the journal circulates on a subscription basis. In 1950 a special committee was formed to review the state of the journal and to make recommendations as to its future course. Certain economies in its publication were introduced as a result of the committee's study, and Gaylord P. Harnwell, editor of *The Review of Scientific Instruments*, was named editorial director of *Physics Today*, heading an editorial board of fifteen members.

Journal publication has been only one facet of the service functions performed by the Institute of Physics for the Member Societies. The Institute acts as the representative of the Societies in all cooperative programs and has often been in a better position than are the individual Societies to solicit grants, contracts, or other support for special studies and projects in keeping with the aims and needs of the Societies. The AIP staff handles a large part of the routine business correspondence that otherwise would require the attention of officers of the various societies. The AIP also maintains legal counsel for itself and for the Societies, promotes membership in the Societies and nonmember subscriptions to the journals, and performs a variety of tasks for the individual Societies upon request.

In addition to the five Societies of physicists comprising the majority of the AIP membership, eight other scientific organizations cooperate with the American Institute of Physics as Affiliated Societies. They are the American Crystallographic Association, the Electron Microscope Society of America, the Physical Society of Pittsburgh, the Physics Club of Chicago, the Physics Club of Philadelphia, the Cleveland Physics Society, the Physics Club of the Lehigh Valley, and Sigma Pi Sigma, the national physics student honor society. The Crystallographic Association, it should be noted, is joining with the Founder Societies in the AIP's twentieth anniversary celebration and will hold technical sessions during the five-day meeting.

An experimental program designed to stimulate interest among students in the professional physics organizations was launched last year by the Institute. A category of Student Sections of the AIP was established for the benefit of student groups in accredited colleges and universities offering a physics major curriculum, and membership is offered to any such group providing it is made up of at least fifteen students having a personal interest in some branch of physics. Dues are collected locally, of which two dollars per member is paid to the Institute; in return, the AIP sends the journal, *Physics Today*, to each of the members by bulk distribution through the local secretary. There are at present a total of thirty-nine such sections and at least another twelve are in the process of organizing.

A nonprofit organization, the Institute derives most of its income from advertising carried in the Institute-owned journals and from funds provided by the Founder Societies in exchange for services rendered in connection with publishing and for support of the Institute. Additional revenue is obtained from the contributions of a number of industrial firms interested in the progress and health of physics in the United States. These companies, designated as "Associates" of the AIP, are listed on page 63 of this issue. Royalties and certain other minor sources of income add to the total amount of the funds available for AIP operations.

Cooperative relationships have been developed by the Institute with a variety of national and international organizations and agencies, and it has especially close ties with the National Research Council of the National Academy of Sciences. Concerned most particularly with the activities of the NRC's Division of Mathematical and Physical Sciences and with its Office of Scientific Personnel, the Institute has joined with both in carrying out numerous projects and special studies, including the administrating of fellowship programs, studies of the nation's resources in scientific personnel and of the relations of science with the government, and miscellaneous projects to coordinate research effort in regions of mutual interest to the Institute and to the NRC. The AIP has also cooperated with many professional organizations in neighboring scientific fields in this country and with the British Institute of Physics and Physical Society and such other groups as Unesco and the International Union of Pure and Applied Physics.

GAYLORD P. HARNWELL, editor of *The Review of Scientific Instruments* and editorial director of *Physics Today*, is professor of physics at the University of Pennsylvania.

ELMER HUTCHISSON, editor of the *Journal of Applied Physics*, is dean of the faculty at Case Institute of Technology. He heads the AIP Publication Board.

JOSEPH E. MAYER, editor of the *Journal of Chemical Physics*, is professor of physical chemistry at the Institute for Nuclear Studies of the University of Chicago.