The first of the associated organizations dates back to 1853, when the New Orleans Academy of Science, now known as the Louisiana Academy, was formed. It was not until the period from 1866 to 1870 that the number of academies had reached four. This number had increased to twenty by 1924, when the Alabama Academy was formed. The youngest of the affiliated organizations is the South Carolina Academy, which became a member of the association in October of this year. The credit of being the pioneer in this field should perhaps belong to the Maryland Academy of Science, originally formed in 1797.

Besides the associated organizations in the eastern and southern states there are a Pacific division and a southwestern division of the American Association. It is an evidence of the national interest in scientific studies that there are academies of science in all the Pacific Coast states, with which are affiliated other scientific organizations in the Rocky Mountain states, British Columbia, Alaska and the Hawaiian and Philippine Islands, and that in the southwest there is an affiliation of similar organizations covering the states of Arizona, New Mexico, Colorado, the two bordering Mexican states of Sonora and Chihuahua and the state of Texas west of the Pecos.

The number of members enrolled in the academies varies widely; the New Orleans Academy has about fifty members, while the Maryland and Indiana academies have about 800. There is apparently no hard and fast rule regarding the qualifications for members. The New Orleans society is limited to research workers, which may account for its small membership. In fourteen of the academies any one "interested in science," "interested in the progress of science" or "interested in scientific work" may become an active member. Georgia requires five years of recognized scientific work or some notable contribution to science. New Hampshire asks for proficiency "in some branch of science," North Carolina wants active interest in the promotion of science and Maryland stands out in requiring, besides an interest in science, "a desire for self-improvement and a desire to help others." Most of the state academies apparently interpret the term science to cover "most of the field of classified knowledge and orderly thinking."

The work which the academies have undertaken or accomplished varied largely with the demands which the different states have made upon the organizations. In a general way all have endeavored to arouse interest in scientific matters, publish papers primarily for non-scientific readers, present non-technical lectures, encourage scientific research among graduate students and foster higher standards of scientific work. Some of the academies have sought to make collections of scientific literature that might not otherwise be accessible to students. The New Hampshire Academy financed from its own funds the publication of Professor J. W. Goldthwait's valuable "Handbook of the Geology of New Hampshire." The Maryland Academy has its own building, which it opens to the use of the scientist. Eight of the state academies have libraries of their own; the library of Kansas contains 4,000 volumes on research, Indiana has 6,000 volumes and Wisconsin offers the student several thousand books on modern attainments besides 700 exchanges of publications from all parts of the world. The inference which the president of the New Hampshire Academy draws from his study of scientific advance in the last few years is that "the state academies have been and are very valuable, not only to the members but also to the progress of science and education in general and consequently to the public at large."—*New York Sun.*

REPORTS

RESOLUTIONS ADOPTED BY THE INTERNATIONAL GEODETIC AND GEOPHYSICAL UNION[1]

I. IN view of the decision unanimously adopted, June 29, 1926, by the International Research Council at its general meeting at Brussels, according to which the contribution to be paid by each of the adhering countries is to be henceforth calculated in gold francs, the sum originally adopted as the unit of contribution, in each union, to be at the same time reduced in a proportion included between a third and a fifth of the present figure;

Considering that, for the International Geodetic and Geophysical Union, the unit of contribution has been until that time fixed at 2,600 French paper francs, which, in the beginning of 1919, were equivalent to about 1,800 gold francs:

The General Assembly unanimously proposes to replace provisionally, beginning with 1928, this amount by a round sum of 900 gold francs and invites its bureau to bring this resolution to the attention of the International Research Council and of the national committees of the various associated countries.

II. In view of the desire expressed by the American National Committee of Geodesy and Geophysics to have, in the future, the International Geodetic and Geophysical Union and the International Astronomical Union hold their meetings the same year at an interval of only a few weeks and in cities not too

[1] Resolutions adopted by the third general assembly of the International Geodetic and Geophysical Union held at Prague, Czecho-Slovakia, September 3 to 10, 1927. Translated from the French by H. D. Harridan, Department of Terrestrial Magnetism of the Carnegie Institution of Washington.

distant from each other so as to facilitate attendance at these meetings by scientific men interested in the work of both unions;

The General Assembly of the International Geodetic and Geophysical Union invites its bureau to enter into correspondence with the Bureau of the International Astronomical Union for the purpose of carrying out, if possible, the proposal in question.

III. The assembly reelects unanimously, as president of the union, M. Charles Lallemand, whose term of office, according to article 6 of the statutes, had expired.

IV. On the proposal of the Section of Geodesy:

The General Assembly recommends that the governments possessing a submarine fleet undertake, as soon as possible, gravity determinations on board submarines by the new method of Vening-Meinesz—such determinations being of the greatest interest to geodesy.

V. On the proposals of the Section of Seismology:

(1) The General Assembly recommends that seismological installations be made in the following regions:

(a) In the northern part of Spain and in the Balearic Islands to complete the réseau of Spanish stations.

(b) In New Caledonia and Tahiti to complete the réseau of the French colonies.

(2) At the request of the American Committee of Geodesy and Geophysics, the General Assembly recommends that, wherever it may be possible, observations and studies be made, in common, on the ocean deeps and on their relations with the bottom-relief, with gravity anomalies, and with depth of seismic centers.

VI. On the proposals of the Section of Meteorology:

(1) The General Assembly notes with satisfaction that the published tables of observations made in the upper atmosphere contain results from tropical stations and from stations in the Southern Hemisphere, in particular wind and temperature soundings at Hongkong and wind soundings at Colombo and Dewa in the Island of Ceylon, at seven stations in Brazil, at Pretoria in South Africa, at Melbourne in Australia, and at Apia in the South Pacific; it recommends that this work be continued and developed through international cooperation.

(2) The General Assembly further recommends that, as far as possible, copies of the minutes of the section be made available to meteorologists desirous of carrying out investigations and that a list of persons to whom these minutes should be sent be drawn up by the national committees.

VII. On the proposals of the Section of Oceanography:

(1) The General Assembly approves the creation of a permanent mixed commission organized with the cooperation of the sections of seismology and volcanology for the purpose of collecting all the documents of use for the study of the phenomenon of bores.

(2) The General Assembly approves the creation of a permanent mixed commission organized with the cooperation of the Section of Meteorology for the purpose of studying the influence of polar ice on climates, especially in the Southern Hemisphere.

VIII. On the proposals of the Section of Volcanology:

(1) The General Assembly, considering that studies of the thermal gradient of the earth are not only of interest to pure science, but also to industrial applications, recommends that the Italian government kindly intrust to its National Research Council the mission of undertaking such investigations on the volcanoes of Italy and especially on Vesuvius.

(2) In view of the importance to science which is offered by the state of the extinct volcanoes and the lavas of the Aegean Sea, the General Assembly recommends that the petrological laboratory of the University of Athens continue its systematic studies of this subject.

(3) At the request of Professor Ktenas, of the Academy of Athens, it recommends that the new volcano in the Kamenis Islands of the Santorin Archipelago, the eruption of which began August 11, 1925, keep the name of the great geologist Fouqué.

(4) In view of the international interest presented by the measurement of the speed of propagation of longitudinal and transversal waves in solid and fluid magmas near the point of fusion, it recommends that such measurements be undertaken by countries having active volcanoes in their territory and in that of their colonies.

CH. LALLEMAND,
President of the Geodetic and Geophysical Union

H. G. LYONS,
Secretary-General

SCIENTIFIC APPARATUS AND LABORATORY METHODS

INFILTRATING PIG EMBRYOS WITH PARAFFIN

AFTER much experimentation in our laboratories with various methods for infiltrating pig embryos with paraffin, we have found the method described below as the most satisfactory and one never failing to give the desired results.