all is that of reptiles and amphibians secured by Mr. Slevin, totaling more than 3,000 specimens. Every species previously known from the islands is represented by one or more specimens, and several species new to science were secured.

Very large and complete collections of the botany of the islands were secured by Mr. Johnston. In addition to a large number of dried specimens secured for the Academy's rapidly growing herbarium, a considerable number of living cactuses were sent direct to Dr. J. N. Rose at the United States National Museum, who with Dr. Britton, is monographing that group.

Owing to the unfortunate illness of Mr. Owen, during much of the cruise the collections of birds and mammals are small; however, good series of eggs of several species of birds were secured, particularly of Heermann's gull, and elegant and royal terns.

Dr. Baker secured a very extensive collection of mollusks particularly of shallow-water species. As the vessel was not equipped for dredging in deep water, not much was done in that line. Valuable collections of fossils were obtained at several places where fossils had not been previously known to exist. Dr. Baker also rendered invaluable service in his capacity as physician to the expedition. Through his constant attention to the drinking water supply, the food, and all other matters pertaining to health conditions on the ship, no serious illness due to local conditions appeared at any time.

A record of water temperatures was kept throughout the cruise and samples of water were taken, all of which have been turned over to the Scripps Institution for Biological Research for use in its oceanographic studies.

Small collections of marine algæ, freshwater fishes, and marine invertebrates were made.

All of the collections have now arrived at the Academy's Museum in San Francisco. Specialists are already at work upon them and the results of their studies will appear in due time in the Proceedings of the California Academy of Sciences.

Mr. Slevin as chief of party performed his duties with excellent judgment and rare tact. All members of the staff showed a fine spirit of cooperation and a degree of enthusiasm and industry highly commendable. Collaborators Contreras and Lopez proved most agreeable and helpful members of the party and contributed materially to the success of the expedition. Through their relations with local officials of the Mexican government they were able to render very great assistance in many ways. Captain Ross was an ideal commanding officer who appreciated the aims and purposes of the expedition, and was always ready to do anything possible that would contribute to its success.

The uniform courtesy shown by local government officials was very gratifying and was highly appreciated by all members of the expedition, as it is by the Academy.

Special mention should be made of courtesies extended by the United States officials with whom the members of the party came in contact, particularly Mr. J. A. McPherson, United States Vice-Consul at Guaymas and Mr. Francis J. Dyer, United States Consul at Nogales, Sonora.

On the whole, the expedition is regarded by the Academy as having been a very successful one, the results of which when published will add much to the knowledge of the natural history of the region.

G. DALLAS HANNA
CALIFORNIA ACADEMY OF SCIENCES

## APPEAL OF THE AMERICAN CHEMICAL SOCIETY

A SMALL group of chemists, gathered together in 1876, founded the American Chemical Society. For several years the society was localized in its nature. Its journals were of little scientific importance, and its membership grew slowly. At least twenty-five years passed before it gained strength. Its growth really started when it eliminated classes of membership, became a democratic organization, and interested chemists throughout the country. As its membership began to increase, its one journal, the *Journal of the American Chemical*

*Society,* took on character and standing. Members came in rapidly so that in 1907 the society had accumulated a slight surplus and felt it could branch out in the publication of a second journal, *Chemical Abstracts,* for which there was a decided need. With the publication of *Chemical Abstracts* chemists realized that the American Chemical Society was to be the central organization for chemistry in America and was interested solely in the advancement of American chemistry and the welfare of American chemists. With increasing numbers its income grew and in 1909 it was able to satisfy another crying need by publication of the *Journal of Industrial and Engineering Chemistry.* The increasing activities of the society so pleased the chemists of America that new members continued to join the society, and the society grew. With numbers its income further increased, and it was able to spend more money on its varied activities and improve the quality and size of its journals. More money was spent on its general meetings and more money was returned to its local sections for activity throughout the country.

With the war came added duties. Its president and council placed the society at the disposal of the government and through its efforts over 4,000 chemists were enrolled, as such, in uniform for chemical work during the war. At the same time practically all of its membership, in uniform and out, was engaged directly or indirectly in war work.

Up to this time the literature of the American Chemical Society had had for its main object the enlightenment of chemists. During the war it became apparent that it was extremely important that correct chemical information be also furnished to the public through the daily press and the *News Service* was organized. A year later in order to foster the growth of chemical literature in English the American Chemical Society established its series of *Chemical Monographs,* both scientific and technological, and assigned a paid editor to each. Again the society induced the Research Council, with the society's support, to enter upon the compilation and publication of *Critical Tables of Chemical and Physical Constants.* In 1917 the society published, at a cost of approximately $40,000, a *Decennial Index to Chemical Abstracts* and in 1920 entered upon the publication of an annual formula index to *Chemical Abstracts.*

The inception and continuation of each of these activities was made possible only by the increased number of chemists supporting the American Chemical Society and its resultant increase in income. Each was inexpensive in its infancy but with growth increased in cost. This growth is made apparent by the following table:

| | 1907 | 1921 |
|---|---|---|
| Membership | 3,400 | 15,000 |
| *Jour. Amer. Chem. Society,* Cost | $ 6,752.18 | $ 48,000.00 |
| *Chemical Abstracts,* Cost | 12,668.05 | 100,000.00 |
| *Jour. Indus. and Eng. Chem.,* Cost (1909) | 7,478.70 | 82,000.00 |
| *A. C. S. News Service,* Cost (1919) | 2,069.88 | 13,000.00 |
| *Chemical Monographs,* Cost | | 2,150.00 |
| Local Sections, Cost | 2,323.63 | 9,792.69 |
| Total society expenditures, Cost | 27,248.89 | 325,000.00 |

The society's success has been due to its democratic organization; to the fact that every member has an equal voice in its affairs; to its form of government; to its sixty local sections, patterned after our national government, each electing representatives to the governing body; to the easy removal and constant rotation of its officers and representatives; to the high character of its publications; but chiefly to the fact that through numbers it has been able to accomplish results and return to its membership much more for each dollar individually expended than can be shown by any other technical society in any country in the world. According to the treasurer's report published in 1921 the expenditure per member for 1920 was as follows:

| | |
|---|---|
| Journal | $ 3.23 |
| Abstracts | 5.84 |
| Industrial Journal | 4.84 |
| News Service | .57 |
| Local Sections | .55 |
| Secretary's Office | 1.43 |
| Treasurer's Office | .22 |
| President's Office | .02 |
| General Meetings | .12 |
| Monographs | .15 |
| Miscellaneous | .07 |
| Total | $17.04 |

The total expenditure of several hundred thousand dollars was made possible simply by the size of the membership. The success of the society was due first to the character of its work and second to the fact that it has more technical men, representing one profession, gathered together and working together for the development of their profession than any other society in the world.

All members will appreciate the necessity of a high quality of work but will not appreciate without explanation the need of large numbers working as a unit. This is, however, easily shown. With numbers the society can increase its output chiefly for the reason that every additional member helps diminish the overhead per individual. The journals must be published, and it costs just as much for editorial office and composition whether the publication is distributed to one or twenty thousand individuals. It is only because the members of the American Chemical Society take all three journals that it is possible to publish them at all, for the cost of "putting on the press" is by far the larger part of the cost of publication. Each additional copy is printed at a comparatively small additional cost. Accordingly, every additional member adds just so much to the surplus which the society has to spend. The return which the American Chemical Society gives to its members is the envy of other organizations throughout the world and is constantly referred to as a model of efficiency.

This data is sent to you to impress you with your individual responsibility if you wish the work of the American Chemical Society to continue and its influence for the development and continuation of chemical science and chemical industry to increase. It is the duty of every member to stand by and do his part not simply by the continued payment of his annual portion and by personal activity in the affairs of the society itself, but he should especially endeavor to impress the 10,000 individuals still in America who should be, but who are not, supporting its work. If this additional 10,000 would join with the 15,000 we now have, the activities of the American Chemical Society could be more than doubled. Few of the 10,000 realize the fact that they are carrying no part of the burden and are shirking their duty to the profession. By not associating themselves with the movement, they are not only enjoying the results of the labors of others, but also, are actually retarding the progress of the profession through which they are supposed to gain their livelihood. There is not a chemist in America that cannot afford to support the work of the American Chemical Society. In fact, there is not a chemist in America that would not gain financially in dollars and cents if he, as an individual, attended regularly the meetings of his local section and the general meetings of the society in order to rub shoulders with his fellows; to keep in touch with his profession and to rid himself of the effect of professional solitude from which too many of our American chemists suffer to-day. He would gain much inspiration; he would learn himself and transmit knowledge to others; he would increase in aptitude and in spirit; and from continued professional contact with other chemists he would acquire a viewpoint toward life which would be sure to return to him much more than the amount expended.

Until 1921, the curve of membership, the curve of expenditure, and the curve of profitable chemical output within the American Chemical Society went steadily upward. In 1921 the severest depression in chemistry took place that has ever befallen our country. The membership has, accordingly, somewhat declined, although by far the majority of the members have stood by, some at real personal sacrifice. The decrease in membership, in spite of conditions, has been only between 6 and 7 per cent. This decline in numbers has, however, immediately made itself felt in the society's ability to turn out productive work. As a result, the directors at their recent meeting were forced, much against their will and in face of an increased demand for space, to reduce the pages of each one of our three journals by 10 per cent., to decrease the activities of the *News Service* by a still larger percentage, and to discontinue the publication of the formula index of *Chemical Abstracts*. If the membership falls off further with the continued industrial depression, other activities of the society will also have to be retrenched. It, therefore, be-

hooves every member of the society, if he wishes for a recovery of chemical activity in our country, not only to himself continue to support the work of the society through the period of depression, which is sure to be temporary, but also to see that every other reputable person in America interested in chemistry comes into the society to give it new life, new vigor and increased resources.

## SCIENTIFIC EVENTS

### AN INSTITUTE OF HYGIENE IN LONDON[1]

IT has been known for some time that the Rockefeller Foundation has been seriously considering the recommendation for the establishment of an Institute of Hygiene, contained in the report of the post-graduate medical committee published last May (the Athlone committee). The recommendation was that an Institute of State Medicine should be established in London with well equipped laboratories and an efficient staff. It was further recommended that the institute should also provide instruction in other directions, including courses in forensic medicine, toxicology and industrial medicine.

These recommendations were considered by an expert committee, with the minister of health as chairman. In view of the difficulty at present of financing the scheme, the whole case was put before the Rockefeller Foundation as one in which they might think it well to cooperate in the general interest of progress in public health.

The minister of health has announced that the Rockefeller Foundation have offered to provide a sum of two million dollars towards the cost of building and equipping an Institute or School of Hygiene in London, on the understanding that the British Government accept the responsibility of providing for the staffing and maintenance of the school when it is established. This generous offer has been accepted by the minister of health on behalf of the government.

Hygiene, like other departments of medicine, knows no boundaries. In that sense this fine gift is made for the benefit of international medicine, but this country is grateful to the Rockefeller Foundation that it should have been selected. The Athlone committee estimated that the cost of maintaining an Institute of State Medicine would be about £10,000 a year. The scale on which the Rockefeller gift will make it possible to establish the Institute of Hygiene (it amounts at the present rate of exchange to over £400,000) will call for a larger expenditure for staff and maintenance; we have heard it estimated at £25,000 a year. Those familiar with the Athlone report will remember that it proposed to associate the institute with the University of London. This recommendation, it would appear, is not to be carried out, and the annual expenditure will therefore not come out of moneys at the disposal of the university grants committee, but will be found by a special vote of Parliament. The intention is, we believe, that the Institute of Hygiene shall be administered by a mixed committee, representing the various bodies interested, for it is to be remembered that London already possesses certain important elements of an institute of hygiene.

[1] From the *British Medical Journal*.

### COOPERATION BETWEEN THE GOVERNMENT AND INDUSTRY IN STANDARDIZATION

At the request of the Honorable Herbert C. Hoover, secretary of commerce, the American Engineering Standards Committee has designated Mr. A. A. Stevenson, the retiring chairman of the committee, as a special representative to work with the department in the cooperation between its division of simplified practice and the American Engineering Standards Committee.

The division of simplified practice is a coordinating unit of the Department of Commerce assisting in those reductions of excessive variety and other simplifications which many industries are undertaking in order to decrease the cost of production and distribution of manufactured articles. The work of the division was organized in the latter part of 1921 and is now actively under way.

The American Engineering Standards Committee, which serves as a national clearing house for a broad field of engineering and