

The first three questions included the name of editor, name of the journal and the scientific field covered.

(4) *How is journal managed?* The replies include management by an editor or editorial board, in a variety of ways. Business management and editorial management are often separated. Ownership may be private or vested in a scientific institution or a scientific association.

(5) *Of what society or institution may it be considered an official organ?* It is the official organ of a society or institution in 13; not in 6.

(6) *Subscription price per year or volume?* The average is \$5.13 per volume (range \$2.50 to \$7.50). In general, the lower rates are for highly subsidized journals or those with large circulation.

(7) *How many paid subscribers?* The average is 964 (range 250–3,000). Only one is above 1,800.

(8) *What special rate (if any) is allowed to society members or others?* Special rates (discount of 10 per cent. to 50 per cent.; in 1 case, of 100 per cent. to members) are allowed in 9; none in 10.

(9) *If subsidized, how and to what extent?* Subsidies are reported for 11, range from \$250 to \$7,500 annually (exact data not given in most cases). No subsidy to 7.

(10) *What restrictions are placed on authors as to space, illustrations, etc.?* Variable restrictions are reported in 12; none in 7.

(11) *How many manuscripts were rejected in 1923? Give chief reasons.* In 17 replies the number of papers rejected ranged from 2 to 36. In one additional journal, the number was "more than accepted." "Inferior quality" is the chief reason for rejection. "Too long" or "inappropriate in scope" are other reasons given. No reply indicates that appropriate articles are rejected for lack of space.

(12) *How many free reprints are given?* The number is 100 in 5 cases; 50 in 8; 25 in 2; and none in 4 cases.

(13) *Do you personally believe reprints desirable?* Yes in 15 cases; no in 3.

(14) *Do reprints benefit or injure your journal subscription list? Why?* Six believe they help, largely by advertising; 3 think they injure; 10 can see no appreciable effect.

(15) *Do authors receive an honorarium other than reprints?* All say no; one adding "not as a rule."

(16) *Where is the journal printed?* Several are printed by the Williams and Wilkins Co. (Baltimore) and the Wistar Institute (Philadelphia); the others scattering.

(17) *What is the average printing and distribution cost per page?* Ten replies were received. For these, the average cost per page for each issue is \$5.94 (range \$1.00 to \$9.35). Dividing this by the number

of copies printed gives the actual cost per page, which averages somewhat less than \$0.009 (9 mills) per page. For the journal with the largest circulation (3,000), the cost is only \$0.002 per page.

(18) *What is your office overhead expense per year?* (19) *What other expenses do you carry?* The combined cost of these items, as reported by 12, averages \$1,445 (range \$100–\$4,500). Many small journals get free service.

(20) *What annual subsidy would be required to put the journal on the best efficiency basis?* Average of 17 estimates is \$3,171 (range \$0–\$15,000). Only a few appear adequately provided for.

(21) *Do you believe an Association of Medical Scientific Journals would be advantageous? If so how?* Six say yes; 3 no; 6 doubtful. The affirmatives think costs might be reduced.

(22) *Would joint printing contracts be feasible?* Six say yes; 4 no; 7 doubtful.

(23) *Could standardization of page size, type, etc., be accomplished without detriment?* Eight say yes; 4 no; 6 doubtful.

(24) *Would it be desirable and feasible to have a Scientific Press, jointly financed or owned by the societies concerned?* Six say yes; 6 no; 6 doubtful.

(25) *Could the number of our scientific journals be reduced by broadening the scope of those remaining without detriment to science and to financial advantage?* Five say yes; 10 no; 3 doubtful. The negatives urge that the tendency to specialization promotes the advancement of science.

(26) *Additional suggestions or comment.* Some of the more striking comments are: "Better support of high class periodicals is the most pressing current need of the biological sciences." "A serious effort should be made to publish only material of unquestioned scientific value." "Subject-matter might be better distributed among the various journals." "The standardization of human creative effort is undesirable."

The committee makes no recommendations upon the questions under consideration, but believes that the data above presented may be of general interest.

C. M. JACKSON

NATIONAL RESEARCH COUNCIL

SCIENTIFIC EVENTS

THE INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY¹

THE fifth meeting of the International Union of Pure and Applied Chemistry was held in Copenhagen on June 26, under the presidency of Sir William Pope. Sixteen countries were represented by about one hundred delegates. The American delega-

¹ From *Industrial and Engineering Chemistry*.

tion consisted of W. D. Bancroft, *chairman*, W. A. Noyes, Atherton Seidell, W. T. Taggart and J. E. Zanetti.

The delegates and ladies were officially welcomed by the mayor of Copenhagen in the great hall of the Raadhuset, and immediately afterwards a reception was held.

The council of the union met the following morning at nine o'clock, and a meeting of the assembly followed at eleven o'clock. The delegates were assigned to the various committees of the union and these began business that same afternoon. At four-thirty the committees adjourned to the National Institute for Theoretical Physics, where Professor Niels Bohr lectured on "Problems of the atomic theory." After the lecture, the delegates were shown the laboratories and particularly the exhibit of hafnium compounds and hafnium-bearing minerals. In the evening the delegates and their families had dinner at the Yacht Club of Copenhagen and were taken for a delightful steamer excursion on the Sund in the soft northern twilight which in Copenhagen lasts until nearly eleven o'clock.

Saturday was taken up by meetings of committees until three o'clock, when the delegates adjourned to the university to listen to Professor Einar Biilman lecture on "The hydroquinone electrode and its applications," and Professor I. N. Brönsted, on "Some remarks concerning the definition of acid and base." The delegates and their ladies were then taken in automobiles to the Glyptothek, one of Copenhagen's finest museums, where a reception was held by the director, Fr. Poulsen.

On Sunday there was an automobile excursion to the famous castle of Elsinore, lunch at "Marienlyst," a summer resort near Copenhagen, and a visit to the castle of Friedriksborg, formerly a royal residence but now a National Museum.

Monday morning was given to committee meetings. In the afternoon the delegates visited the Carlsberg breweries and listened to Professor S. P. L. Sörensen, who lectured on "The solubility of proteins." Director Vagn Jacobsen gave a talk on the brewery and in the evening entertained the delegates at dinner.

Committee meetings were held on Tuesday morning, and in the afternoon the council met to receive the reports of the committees. A meeting of the assembly followed, at which the decisions of the council were duly ratified and a vote of thanks was passed to the Danish Chemical Society for the excellent arrangements and splendid entertainment of the delegates. The fifth meeting closed with a banquet given by the Danish Chemical Society at "Den Kongelige Skydebane."

The next meeting will be held at Bucharest in June, 1925, at the invitation of the Chemical Society of Roumania.

Of the decisions taken by the council, those relating to the finances of the union are of general interest. The council voted that the funds of the union are to be kept on a gold basis in a bank accepting such deposits, in order to avoid embarrassment to the union resulting from fluctuations of exchange rates. It voted also that, beginning with 1925, the quotas of the various member countries shall be paid on a gold franc basis.

The admission of the Union of South Africa, Chile and Esthonia was unanimously voted. A resolution to recommend to the International Research Council that its statutes be so amended as to permit any country which has become a member of the League of Nations to become also a member of the International Research Council and of its unions was brought up at the last meeting of the council of the union, but as many of the delegates had not had the opportunity to discuss it with the governments and organizations they represented, no vote could be taken. It was agreed that this resolution be placed on the agenda for 1925 and that the International Research Council be informed that such a resolution would be voted on by the union at its meeting in Bucharest, in order that no time be wasted in transmission from the union to the International Research Council.

It is worthy of note that, although Sweden is not a member of the union, the Danish Chemical Society unofficially invited the Swedish chemists to attend the meeting and several representatives were present. Sir William Pope, in the name of the council, invited these representatives to attend and take part in all committee meetings.

The arrangements made by the Danes worked with perfect smoothness. While the delegates were working the ladies were taken on sightseeing tours, lunches and teas, which gave them a much-appreciated insight into Danish social life. Every one left the meeting with expressions of admiration, not only for the efficiency with which the plans were carried out, but for their hosts' charming hospitality.

SCIENTIFIC NOTES AND NEWS

PROFESSOR HORACE LAMB, lately professor of mathematics at the University of Manchester, has been elected president of the British Association for the Advancement of Science for the meeting to be held next year in Southampton, England.

DR. J. C. FIELDS, professor of mathematics at the University of Toronto and president of the Royal Canadian Institute, has been elected president of the International Mathematical Congress.

THE American Astronomical Society, meeting at Dartmouth College, has elected Dr. A. S. Eddington, professor of astronomy at the University of Cambridge, an honorary member.