may be able to undertake some of the newer developments which so many of us users desire. If the General Electric Company, for example, had not made money from its business and had not had the foresight to spend that money in research the whole world would not now be enjoying the economies which come from the use of the tungsten lamp. Could we have foreseen the immense value to civilization of the tungsten lamp it would have been commendable for the United States government to have spent a million dollars for research in this direction. We can see it all very clearly now, for our "hindsight" is always better than our foresight. And I feel confident that fifty years from now scientists can look back upon the present decade and the two or three following and point out the value of cooperation between makers and users of apparatus. It perhaps requires some courage now to think that the movement is worth while and is likely to produce tangible results.

To offset the indefiniteness of some of the results of this conference, valuable as those results are, certain steps were taken which are somewhat more tangible. It was realized at the outset that the conference would fail utterly if its influence were felt only by the few who attended. Accordingly there was passed by the conference a resolution requesting the National Research Council to form a permanent committee to be known as the "Committee of apparatus makers and users" which should consist of representatives (one or more as indicated) from the following technical societies and organizations: American Chemical Society, American Physical Society, American Ceramic Society, American Institute of Electrical Engineers, Optical Society of America, American Electrochemical Society, Manufacturing Chemists Association, American Society for Testing Materials, Bureau of Standards (two representatives), Association of Scientific Apparatus Manufacturers of the United States of America (six representatives) and additional members at large to be appointed by the committee itself. It was suggested that there should be formed an executive committee of the main committee, which should consist of seven members selected by the main committee. It would be the duty of this executive committee to initiate such projects as might be suggested by the several members of the larger committee or by others interested. The executive committee subsequently added the Society of Automotive Engineers and the American Society for Steel Treating to the list named above. It is proposed to have a meeting of the large committee once a year, which meeting should discuss the general question of apparatus manufacture and use and which should be open to all interested.<sup>2</sup>

Among the questions which doubtless will come up for discussion and which may result in the initiation of important problems of a cooperative nature may be mentioned the question of facilities for making special apparatus, further standardization of apparatus and supplies, the development of an inspection service and the like.

It is to be hoped that all of those interested directly or indirectly in American science, whether from the standpoint of actual users of apparatus or from the standpoint of those who profit financially or otherwise from scientific research, will heartily support this movement to build up a strong apparatus industry in America to the end that American science may be strengthened. Those of us who are interested in this movement are not thinking of the question from the standpoint of narrow patriotism, for a scientific fact is just as valuable to the civilized world whether discovered in America or in Europe. But we do feel that American science, just like the American citizen, has an individuality and an independence which, from the standpoint of our contribution to world service, we can well afford to cultivate.

CORNELL UNIVERSITY

F. K. RICHTMYER

## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE SUMMARY OF THE PERMANENT SECRETARY'S SEMI-ANNUAL REPORT, MARCH 31, 1923

THE work of the association has proceeded satisfactorily during the first half of the fiscal

2 The National Research Council announces that through its division of research extension it has formed the Committee of Apparatus Makers and Users essentially along the lines of the resolution passed by the conference. year 1923. The relations of the association with the two divisions and with the State College (Pennsylvania) Local Branch, as well as the affiliated academies, have been continued as usual. Information regarding membership is shown in the following tabulations:

is snown in the following tabulations.
MEMBERSHIP IN THE A. A. A. S., MARCH 31, 1923 Sustaining members
Pacific Division
Southwestern Division
Rest of Association
nest of Association
Total 369
LUCAL
Annual members in good standing:
Posifia Division 1936
Gauthanatam Division 106
Southwestern Division 54
Southwestern Division
Affiliated Academies1,328
Rest of Association
************************************
Total
Annual members in arrears for 1922 and 1923:
Pacific Division65
Southwestern Division 20
State College Branch 3
Affiliated Academies 58
Rest of Association
479
Annual members in arrears for 1923 only:
Pacific Division 129
Southwestern Division 35
State College Branch3
Affiliated Academies 123
Rest of Association 677
Total
Total of names on roll
,
CHANGES IN MEMBERSHIP DURING FIRST HALF- YEAR, 1923
Gain in membership:
Reinstatements 13
Reinstatements
New members (4 me, 110 annual) 114
Total gain
Loss in membership:
Dropped October 1 last for non-pay-
ment of dues
ment of dues
Resignations         217           Deaths         71
Deaths 71
Management and the second seco
Total loss
2000
Transfers from annual to life member-
ship
1
SEMI-ANNUAL RECORDS OF MEMBERSHIP SINCE
SEPTEMBER 30, 1920
In good Total

	In good	Total
	standing	enrollmen
September 30, 1920	10,002	11,442
March 31, 1921	9,637	11,524
September 30, 1921	10,160	11,547
March 31, 1922	9,911	11,652
September 30, 1922	10,566	11,646
March 31, 1923	10,224	11,690

The membership is being maintained and slightly increased each year. Payments of annual dues are becoming much more prompt. Life memberships have increased in number very satisfactorily this year. Since last October 1, 23 new life members have been enrolled, 19 of these representing transfers from annual to life membership. It is hoped that members will increasingly realize the advantages of lifemembership, to themselves as well as to the association, and that the number of life members will continue to increase.

The financial affairs of the association are in excellent condition. The work thus far undertaken is being adequately supported. It should be noted, however, that additional lines of activity for the advancement of science should be undertaken as soon as the finances will permit. And there are many ways in which the work of the association might be extended.

Preparations for the Los Angeles meeting next September are progressing very well indeed, owing to the efficient work of Mr. W. W. Sargeant, secretary of the Pacific Division, and to that of the general secretary, Dr. D. T. MacDougal. A preliminary announcement of the meeting will be sent to all members. Correspondence regarding the meeting should be addressed to Mr. W. W. Sargeant, Golden Gate Park, San Francisco, Calif.

The local committee for the third Cincinnati meeting has been organized, with Dr. Louis T. More as chairman, and much of the preliminary work has already been completed. Each section of the association will have a local representative and the societies meeting at Cincinnati next December are asked to make all arrangements for their sessions through the local representatives of their respective sections.

Burton E. Livingston,

Permanent Secretary.

## GEORGE LINCOLN GOODALE 1839-1923

BOTANY, in America as elsewhere, owes much to men who acquired an interest in plants while studying medicine or who adopted the medical profession as affording a livelihood while permitting them to follow more or less seriously botany as an avocation. Howard Kelly has