and standing as to effectively stimulate research. Production of research is the important thing, not the acquisition of a chapter of the Sigma XI. Some of the most advanced institutions in regard to research, such as Harvard, Johns Hopkins and Princeton, do not have chapters of the Sigma Xi. We are justified in assuming that they have developed effective substitutes.

The existence of a research organization may be the deciding factor when application is made for a chapter of the Sigma Xi. If a number of Sigma Xi members are present these can form a Sigma Xi Club. "Such clubs have all the powers of chapters except that of electing to membership and furnish a simple and effective means of testing the environment to determine whether it is adapted to the establishment of a chapter of the society." In the opinion of the writer Sigma Xi Clubs do not satisfactorily meet the needs of the situation in educational institutions. If it is advisable in the interests of research for the Sigma Xi to offer the reward of a chapter to the institutions which measure up to certain standards it is equally desirable that the research organizations in colleges offer the reward of election to membership to those individuals who have made achievements in research.

VICTOR BURKE

PULLMAN, WASHINGTON

SIGMA XI has no policy in regard to state colleges. It has no policy in regard to state universities, privately endowed universities, technical schools, or any other *group* of institutions. Its one object is the promotion of research, and in its work covering nearly four decades it has tried to maintain the same unbiased attitude as does any *real* scientist toward the investigation in which he is engaged.

Election to membership is based on scientific achievement, actual or potential, and on that only. Were *every* student pursuing scientific studies elected to membership the society would soon become inert and purposeless. In making elections, the line is drawn at such a point as will, in the judgment of the society, result in the greatest possible contribution to the objects of the society.

The granting of a charter likewise is based on the scientific achievement, actual or *potential*, of the petitioning institution, *and on that only*. Were each institution of higher education in the country granted a charter at present, the society would be unable to maintain its high standards either as regards ideals or accomplishments. The line must be drawn somewhere, but in drawing the line there has *never been the suggestion* that any class of institutions should be excluded. The chapter roll of the society is as cosmopolitan as is its membership.

I repeat: Sigma Xi has no policy in regard to state colleges.

F. K. RICHTMYER,
*President*

## QUOTATIONS

### THE AMERICAN CHEMICAL SOCIETY AND THE AMERICAN ASSOCIATION

THE American Association for the Advancement of Science held its seventy-eighth meeting, celebrating the seventy-fifth anniversary of the association, at Cincinnati. The local sections of the American Chemical Society of that region cooperated with Section C, having been encouraged to do so by a vote of the council at the Milwaukee meeting. There are among our members many who regret that circumstances have made it advisable for the American Chemical Society to hold its meetings independently of the American Association for the Advancement of Science, and who have felt that more should be done to assist in the work of Section C than has been possible in late years.

At Cincinnati it was fully demonstrated that the intersectional meeting plan could be put into operation with Section C to mutual advantage. The result was not only a program of unusual merit, but an attendance which must have been gratifying to those responsible for the arrangement. The papers presented covered a wide range of subjects. The attendance was good at all the sessions, the discussion interesting, and on the whole the experiment was a success. We commend the plan to those local sections where future meetings of the American Association for the Advancement of Science will be held and assure them that it is possible to attract to these meetings many of our leading chemists.—*Industrial and Engineering Chemistry.*

## SCIENTIFIC BOOKS

*Bibliographical History of Electricity and Magnetism.* By PAUL F. MOTTELAY. London. Charles Griffin & Company, Limited, 1922, pp. xix, 673.

THE history of electrical science falls somewhat naturally into three chapters. The first deals with electrostatics and magnetism, beginning in 1600 with the appearance of Dr. Gilbert's "De Magnete" and ending in 1800 when Volta's cell was reported to the Royal Society of London; the second period covers the rapid development of the Voltaic cell and the science of electrolysis, which took place during the first quarter of the nineteenth century; the third begins with the discovery of electromagnetism—1820 and 1831—and extends to the present. The volume under review deals mainly with the first two of these chap-