Letters

ACS divisions' viewpoint

SIR: The Divisional Officers and Councilors Caucus agrees with Dr. Henry A. Hill that the functions of the national divisions are among the most important in the American Chemical Society. The articles of incorporation of the society are quite specific.

"Sec. 2—That the objects of the incorporation shall be to encourage in the broadest and most liberal manner the advancement of chemistry in all its branches; the promotion of research in chemical science and industry; the improvement of the qualifications and usefulness of chemists through high standards of professional ethics, education, and attainments; the increase and diffusion of chemical knowledge; and by its meetings, professional contacts, reports, papers, discussions and publications, to promote scientific interests and inquiry, thereby fostering public welfare and education, aiding the development of our country's industries, and adding to the material prosperity and happiness of our people."

There are many of us who feel that the objective of highest regard in our society should be the preservation and furtherance of chemistry as a science. We also believe that to ensure the attainment of this objective that it is necessary that those elements of the society which represent science, namely, the divisions, be given a larger voice in council and appropriate representation on the board.

In practice, however, the situation in the society is that the council is composed of delegates elected by local sections and by divisions with a very large majority—approximately 80%—being local section councilors representing geographical regions. Additionally, the directors of the society are elected from a region or at large. No director is elected as a representative of the divisions or a major segment of chemistry.

The Divisional Officers and Councilors Caucus submits that we belong to the American Chemical Society because we are first of all chemists; we belong to the divisions because they represent our particular fields of chemistry; and we support the divisions with our dues and our time and efforts because the divisions provide professional contacts and the scientific content of the national meetings. Our membership in a local section is an accident of the place where we live.

We, therefore, support the concept of a Commission on Scientific Affairs which is being proposed by the Subcommittee on Organization & Governance as a means of giving the divisions a larger voice in the affairs of the society without major changes in the makeup of the council or the board.

Despite Dr. Hill, there *is* a problem. We cannot go along with his "status quo" point of view.

One of many relevant points is that the division and the national meetings of the society are not supported out of national dues, as are local sections and regional meetings. The 16 largest local sections, having a combined membership approximately equal to the membership of the 28 scientific divisions, receive approximately $85,000 as a rebate from national dues. The divisions receive nothing from national dues. These same 16 local sections are represented by 148 councilors, 36% of the total in council, whereas the divisions have only 56 councilors.

In regard to Hill's statement, "I would hope we would not waste too much time trying to restructure the whole society in order to provide the divisions with their needs," we would agree that there is no time to waste and that there *are* needs. We doubt that "restructuring the whole society" is necessary but if that is what is needed to put scientific interests into ACS affairs, it is well worth the effort. The caucus sincerely regrets that the president-elect has taken a public stance so opposed to what an important segment of the society is working toward: a renewal of the American Chemical Society's commitment to chemistry as a science.

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Frederick G. Cottrell

SIR: While we enjoyed Arthur L. Norberg's "Chemistry in California" (C&EN, Aug. 30, page 26), a review of the history of chemistry in that state would be incomplete without mention of air pollution control pioneer Frederick Gardner Cottrell.

Cottrell, inventor of the electrostatic precipitator and founder of Research Corp., the New York foundation for the advancement of science, entered the University of California, Berkeley, in 1893 at the age of 16, qualified for a bachelor's degree in 1896, and was awarded a fellowship from which he found it necessary to resign for economic reasons. Combining teaching with study, he later pursued graduate work in physical chemistry at the universities of Berlin and Leipzig, receiving a Ph.D. from the latter institution in 1902.

Benjamin I. Wheeler, in search of the best possible man to fill the newly created post in physical chemistry, offered the job to Cottrell at the urging of Edmond O'Neill and with the backing of Willard B. Rising—this, as legend has it, after cabling the scientific capitals of Europe for other recommendations and receiving a unanimous vote for O'Neill's candidate.

Although he received a number of attractive offers, including several from W. R. Whitney of General Electric Research Laboratories, Cottrell accepted and chose to remain at Berkeley for the next nine years, and it was there that the first experimental precipitator took shape. With backing provided by O'Neill, Harry East Miller, a consulting chemist, and attorney E. S. Heller, Cottrell organized a business venture to apply precipitation to the collection of acid mists, dust, salts and fumes from early smelters, chemical, cement, and other industrial plants.

By 1911, the year that Cottrell heeded the call to government service with the U.S. Bureau of Mines, the precipitation venture was on the road to success. Although it had long been his intention that academic science should benefit from the business, should it prove profitable—and with this O'Neill, Miller, and Heller were later to agree—Cottrell was faced with the problem of finding an agency to receive the infant enterprise before he embarked on his new career. The problem was solved with the assistance of Charles D. Walcott, secretary of the Smithsonian Institution, who helped Cottrell enlist an impressive board of directors for a nonprofit corporation. Thus Research Corp. was chartered "to render inventions, patent rights and letters patent more available and effective in the useful arts and manufactures and for scientific purposes," and "to provide means for the advancement of technical and scientific investigation, research and experimentation by contributing the net earnings of the corporation . . . ."

Since its founding in 1912, Research Corp. has contributed some $55 million in grants-in-aid to approximately 7000 investigators. Additionally, its patent program has evaluated roughly 10,000 inventions made at hundreds of scientific and educational institutions and successfully patented and licensed a significant number for further development in the public interest.

The foregoing is especially timely in view of the fact that 1977 will mark the 100th anniversary of the birth of Frederick Gardner Cottrell, and, in his honor, a two-day Cottrell Centennial Symposium will be held at California State College, Stanislaus, next year.

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Compliments!

SIR: Rebecca L. Rawls and Dermot A. O'Sullivan are to be complimented for their excellent technical article "Italy seeks answers following toxic release" (C&EN, Aug. 23, page 27). Many chemists may not be aware of the chemistry involved in this tragedy and the average newspaper or magazine news release would ignore such information if it was available. Undoubtedly, the article reveals good detective work on the part of the authors in addition to high-quality technical reporting.

The editors of C&EN should be encouraged to continue to provide similar reporting of chemical-related news items in the future to give the chemists a technical awareness of what happened.

Erie, Pa. Paul R. Guevin Jr.

Seveso safety

SIR: In your Aug. 9 article (page 27) on the accident at the Seveso, Italy, 2,4,5-trichlorophenol plant, you report that ethylene glycol was used as the reaction solvent. The advantage of the ethylene glycol method is that no pressurized reaction vessel need be used. However, its disadvantage is that an explosive polymerization reaction of the ethylene glycol is possible. This can occur if hot spots develop in the reaction mixture. The normal reaction temperature is 180° C. A hot spot at 230° is said to be enough to initiate the explosion. The 1968 explosion at Coalite Co. in England was caused in this way. An account may be found in *Nature*, **232**, 395 (Aug. 6, 1971).

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