

1989.

107. Before going to press we were informed that Edgar Fajans passed away (August 1990).

* **Addendum:** While Part II was being revised, the Editor, W. B. Jensen, advised me of two references new to me. The first is to the significance of Fajans' earliest research (that which won him the Victor Meyer Prize). In 1925, Arthur R. Cushny, Professor of Pharmacology and Materia Medica at the University of Edinburgh, gave the third series of The Charles E. Dohme Memorial Lectures. Earlier he had taught at Universities of Michigan and London. This lecture was published under the title, *Biological Relations of Optically Isomeric Substances*, Williams and Wilkins, Baltimore, 1926. Cushny therein refers to the importance of Fajans' early work in answering some questions raised by Pasteur regarding the action of enzymes and in showing that their stereospecificity in a chemical reaction can be matched by an asymmetric molecule (see especially pp. 10-13, 20-21). Reference to the more complete publication of Fajans' thesis research, "Selective Action of Catalysts on Stereoisomers and Optical Activation by Asymmetric Catalysis", *Z. Physik. Chem.*, **1910**, *73*, 25-96 (German), should have been included with Ref. 3 in Part I of this article. I apologize for citing only the preliminary one. The second, J. Bigeleisen, "Chemistry of Isotopes", *Science*, **1965**, *147*, 463-471, p. 463, credits Fajans with being the first to recognize that the isotopes of an element, although not chemically separable, should exhibit differences in those properties which depend on "the frequencies of atomic and molecular vibrations".

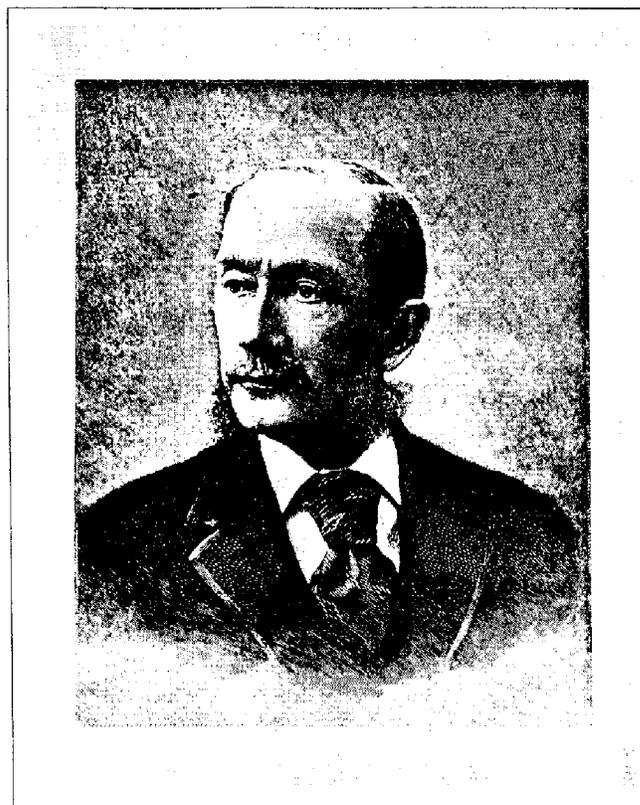
* **Errata:** In reference 44, p. 23 of Part I, the date of the English translation should be 1938, not 1928. The last two references, same page, are numbered 46 and 47; they should be 47 and 48, respectively.

Dr. Reynold E. Holmen, 2225 Lilac Lane, White Bear Lake, MN 55110, is retired from the 3M Company, where he was employed as an organic chemist. He received his Ph.D. from the University of Michigan, where he had the stimulating experience of taking several courses from Fajans. Part I of this article appeared in the Fall 1989 issue of the Bulletin.

THE CONTINENTAL CHEMICAL SOCIETY

James J. Bohning, Beckman Center for the History of Chemistry

Chemists of the U.S. ought to have something better than the Chemical Section of the American Association, the publications of which are next to nil. They ought to have something better than membership in the American Institute of Mining Engineers. They ought to have a national society, including all working chemists in the country -



Frank Wigglesworth Clarke

including the teachers. The American Chemical Society (of New York) would not do, even for a nucleus. It seems to be sort of a Pickwick Club, a joke (1, 2).

Such were the sentiments of William Glenn of Baltimore as he wrote to Frank W. Clarke in Washington, D.C., on 21 June 1890 (3, 4). Glenn's letter was just one of about 100 that Clarke and Harvey W. Wiley received during the summer months from a wide spectrum of chemists in the United States. This spurt of activity was prompted by a circular calling for the formation of the Continental Chemical Society (CCS) and mailed "to the Chemists of America" in early June.

As co-authors, Wiley and Clarke were acting on behalf of the Chemical Society of Washington (CSW), the Chemical Section C of the American Association for the Advancement of Science (AAAS), and the Association of Official Agricultural Chemists (AOAC). Their proposal was brief, attractive in its simplicity, and appeared to provide an obvious course of action. The plan was "to organize a Continental Chemical Society, representative of all North America, by affiliating together as far as possible all existing local organizations. The Society as a whole to hold an annual meeting at such time and place as may be agreed upon from year to year; while local

sections, like sections of the British Society for Chemical Industry, shall have their regular frequent gatherings in as many scientific centers as possible; all publishing their work in one official journal." The broadside recipients were asked to "kindly state whether you regard the project favorably, and if modifications or objections occur to you, will you formulate them? Do you favor a society at all? Do you favor the idea of local sections? Do you favor the publication of a journal?" (3).

Ironically, Clarke publicly opposed the formation of a national chemical society when Persifor Frazer suggested the

idea at the Priestley House in 1874 (5). Even after the American Chemical Society (ACS) was organized, Clarke refused to participate in its affairs. Instead, his efforts were directed to the AAAS, where he was instrumental in the formation of the Permanent Subsection of Chemistry of Section A in 1874, and where he served as an officer and the author of a large number of papers presented at the annual meetings. Fifteen years later, with the number of chemically related organizations increasing, and the

organizational affairs of chemistry in disarray, Clarke succeeded Albert P. Prescott as chairman of a Committee on a National Chemical Society. Prescott, from the University of Michigan, had presented a report to Section C of the AAAS in August of 1889 explaining the desirability of a truly national chemical organization (6). With Wiley's assistance, Clarke obtained unanimous approval of the national society concept from both the CSW and the AOAC. Being careful to exclude the CSW members from the mailing list to avoid charges of bias, Clarke "widely distributed" the circular to obtain more support at the national level (7). It is clear that the intent was

to make Section C of the AAAS serve as the nucleus for the new organization, and the final report for implementation of the project was to be presented to the AAAS during the annual meeting at Indianapolis in August, 1890 (8).

The response to all of Clarke's suggestions was generally quite favorable. A typical reply came from C. J. Reed in the Laboratory of Thomas A. Edison. Acknowledging receipt of "your circular letter of recent date, proposing the organization of a Continental Chemical Society," Reed continued "that the project meets my hearty approval. I would favor 1) the idea

of local sections, 2) the publication of a journal, 3) annual meetings of the whole society." Sixty-nine other letters, most of them equally terse, a few even written in the margin of the original circular, contained similar comments. Twenty-three others, however, took the time to develop more detailed ideas. The diversity of their remarks reflects not only the heterogeneity of the sample obtained from the poll, but also is a measure of the state of Ameri-

CONTINENTAL CHEMICAL SOCIETY,

TO THE CHEMISTS OF AMERICA.

The undersigned, representing committees appointed by the Chemical Society of Washington, the Chemical Section of the American Association for the Advancement of Science, and the Association of Official Agricultural Chemists respectfully submit the following statement:

During the past two years the formation of a National, or rather Continental Chemical Society has been much discussed. A committee, of which Prof. A. B. Prescott was chairman, presented a report upon the subject at the last meeting of the American Association, and that report was in the main favorable. A new committee, however, was appointed to secure fuller information, and will report at the next meeting of the Association, in August 1890, at Indianapolis. A larger attendance of Chemists is there expected.

The plan which has so far been chiefly considered is, in brief, as follows:

To organize a Continental Chemical Society, representative of all North America, by affiliating together as far as possible existing local organizations. The Society as a whole to hold an annual meeting at such time and place as may be agreed upon from year to year; while local sections, like the sections of the British Society for Chemical Industry, shall have their regular, frequent gatherings in as many scientific centres as possible; all publishing their work in one official journal.

Bearing this rough outline in view will you kindly state whether you regard the project favorably, and if modifications or objections occur to you, will you formulate them? Do you favor a society at all? Do you favor the idea of local sections? Do you favor the publication of a journal?

Upon the basis of the replies to this circular the committees named in it will prepare their reports to the organizations which they represent. Other existing societies, having appointed similar committees, may take action independently; if so, their views will be considered also, as it is desirable to secure the fullest co-operation among the chemists of America. Complete unity of action is essential to success.

Very respectfully,

F. W. CLARKE.
H. W. WILEY

Please address replies to Prof. F. W. Clarke, U. S. Geological Survey, Washington, D. C.

Circular calling for the formation of the Continental Chemical Society, June 1890

can chemistry in 1890.

While not claiming any priority, Thomas H. Norton (University of Cincinnati) gently reminded Clarke "that in 1884 when at Washington I broached the idea to you, but at that time you rather doubted its feasibility." Some were concerned about the name of the new organization. Winthrop E. Stone (Purdue) felt that the name "American Chemical Society" would be more definitive since "we are accustomed to seeing [Continental] used as designating Europe in distinction from England." E.H.S. Bailey (University of Kansas) wondered if "the name American [is] monopolized by the N.Y. Society, so

that we cannot use it?" More directly, Henry Trimble (Philadelphia College of Pharmacy) simply did "not like the name 'Continental', but thought it should be 'American' although such a name could only be adopted by an arrangement with the New York American Chemical Society... The name 'North American' might be used, or the 'United States Chemical Society' which would exclude Canada - a small loss." This dilemma was solved by M. F. Edwards (University of Michigan) who called the project an "American Continental Chemical Society."

Separated by their geography as well as their specialties, most of the chemists had strong feelings about local sections. Divisions "drawn on geographical or on technical grounds" were equally acceptable to Thomas Robinson (Fort Mitchell, Alabama) who could envision either an Eastern Section headquartered at Boston, Montreal or Halifax or sections of Agricultural, Mining, and Biological Chemists. Supporting this view, Alfred E. Hunt (Pittsburgh Testing Laboratory) considered "the idea of the local sections to be a good one; but think that there are at present chemical society organizations, organizations of engineers' societies in which the chemists have sections, or could form sections, that this should represent the local sections." However, Davenport Fisher of Milwaukee felt "so out of the way of intercourse with my fellow chemists that I hardly know how practicable and useful such a society could be." Similarly, F. W. Woll (University of Wisconsin Agricultural Experiment Station) argued that "local sections may be advantageously formed in the East, where a considerable membership of chemists are gathered within a comparatively small area, but I doubt if they would be a success anywhere else, and I should rather see a good strong meeting of the whole society once every year than more frequent weaklings of sectional meetings which cannot help taking away the interest from the mother society." W. P. Cutter (Utah Agricultural College) agreed that his "isolated position would make it practically impossible to attend any such section," yet recognized that "the formation of such local organizations would be the only way to prevent the society from becoming a mere publication firm...".

J. T. Willard (Kansas State Agricultural College) predicted that "not over six or eight local sections could be organized," even though "these would probably embrace the best men of the profession in this country." Willard also presumed it "unnecessary to point out the conditions obtaining here and in Great Britain are vastly different, the area of the latter being scarcely more than that of Kansas. Successful annual meetings which can be attended by a large majority of the members can thus be held there, while here many of us would not be able to attend once in five years." More prophetically, Bennet F. Davenport suggested that "the American Chemical Society at New York City and the Washington, D.C. [Society] could form sections, and we could have one here at Boston." However, John Ordway (Tulane) did not think a local section in Boston

would "flourish, according to past experience, but if the pharmacists could be interested, they might help as they are getting better educated than they used to be." Conflict with the Scientific Association at Johns Hopkins caused William Glenn to doubt the success of a local section at Baltimore, since it "could not live ... unless led by the Hopkins men; it is doubtful if they could find time and inclination to lead it."

In spite of their various approaches to the implementation of local sections, most respondents were in accord with Charles D. Woods (The Storrs School Agricultural Experiment Station) who found "the way in which chemical publications in this country are scattered is to be deplored." Walker Bowman (Virginia Agricultural and Mechanical College) saw the proposed journal merging "the chemical work now appearing in so many different journals in so many different parts of the country." "A journal in which all papers will have a right to appear and not by abstract only" was anticipated by F. B. Dancy (Raleigh, NC). F. E. Engelhardt (Syracuse, NY) looked for an official journal in which American chemists could publish their work, "instead of a dozen or so which is now the case, and quite expensive for a chemist of small means when he takes European journals at the same time." Finances were also the concern of H. J. Patterson (Maryland Agricultural Experiment Station) who did "not think it would be wise to make the subscription to the journal exceed \$5.00 per year."

Quality was the chief concern of Alfred M. Peter (Kentucky Agricultural Experiment Station) who proposed to "purchase or combine" with an established journal to make "the journal the best chemical journal published on the Continent." According to W. Simon (Maryland College of Pharmacy), "it should not be undertaken before a number of prominent writers have promised to make this journal the chief means for publishing and exchanging views." Purdue's Stone complained that "at present publication in American journals is often insufficient to secure a permanent record in the literature." Perhaps this was because Albert M. Todd (Nottawa, MI) believed that many "journals are conducted largely for the purpose of gain; their editorials column as well, being subservient to the interests of gain rather than scientific accuracy and the public good." Peter T. Austin (Rutgers) warned that "the trouble with a journal is that there is not enough work done in this country to fill another. The *American Chemical Journal* might be assimilated, otherwise we should not try to get up another. To devote a large portion of another journal to abstracts would be an outrage on us, for our libraries are now crammed with five or six abstracts of every article that comes out."

Several writers addressed items that were not specifically mentioned in the circular. Based on his experience as a student at the University of Freiburg, Edgar Everhart (University of Texas) thought of "admitting to membership advanced students of chemistry" since "in this way the subscription list would be considerably increased and a livelier interest and enthusiasm in chemistry would be given young men." Simi-

larly, John Eyermans (Easton, PA) wanted to elect "fellows to be composed of college instructors and others doing original work" and "also a second class to be termed associates to include all other classes of chemists." For Charles S. Parsons (Dartmouth) there was a much different concern. "While I recognize the value and beauty of organic chemistry" he wrote, "and wish to keep up with it as far as I can, still I hope that if a Continental Chemical Society is founded it will not make organic chemistry too prominent ... to the exclusion of other branches." Thomas Robinson enthusiastically wanted to "go further and make [the CCS] a section of a world-wide Chemical Society."

The details of organizational problems will evoke as many solutions as there are individuals to propose them. Writing from the Fellowcraft Club in New York City, Marcus Benjamin examined the overall concept of a new society as well. Pointing out that Clarke had copies of his editorials in the *Engineering and Mining Journal*, which advocated a similar plan, Benjamin expressed "doubt that [Charles E.] Munroe's idea of reviving the American Chemical Society by infusing new life into that body" would succeed. Instead, "I believe in a new start with new machinery, officers, etc., and then let the ACS come in... Years ago I proposed that the ACS become a local section of the Society of Chemical Industry, but I was hooted at. In consequence, I resigned and have been \$5.00 ahead each year since." Conversely, J. W. Mallet (University of Virginia) confessed "that I retain an Old World tendency to build upon foundations already laid by others, rather than sweep away the past and set up something entirely new." Others argued for a rational amalgamation of existing societies. It seemed important to A. H. Hunt that the proposed CCS should "use every effort and endeavor, not so much to form new societies as to combine and collate the work of the organizations already formed." A consulting chemist, James B. MacKintosh (New York) thought that "if we could get a society wide enough to embrace the coal tar color men at one end and the mineral chemists at the other with representation both of theory and practice ... we should be able to form a society to be proud of." From the United States Patent Office, William N. Seaman preferred "giving greater autonomy to the sections [of the AAAS], and whether this be done by making the Association a confederation of partially independent societies or by enlarging the powers of the sections ... is ... a question of expediency."

Yet State Assayer S. P. Sharples (Boston) noted that the "AAAS is largely made up of those who are interested as teachers or in theoretical work" while "the chemical side of the Engineering Society at present is a very strong one embracing most of the chemists who are interested in metallurgy and commercial work." Since those "engaged in everyday conflict ... are after results rather than theories" while the teachers are "furnished with abundant material" for their theoretical work from those needs, the new society would serve as a "common

ground" for both groups to meet. However, a group headed by Louis M. Norton (MIT) preferred to have the society "devote its strength mainly to applied chemistry rather than to pure chemistry", looking to the Society of Chemical Industry rather than the German Chemical Society for an example. Citing the *Journal of the CCS* as the crucial step in implementing the new society, George H. Masson (Trinidad) tied the rise of the professional status of the members "with the progress of the Society, which if worked with earnestness and concord would soon become an association of recognized importance among the scientific institutions of the world." "Organization is the spirit of our time" wrote Charles Munroe (Newport, RI) philosophically, for "it gives force to action and effects an economy in effort while the strength which follows a well matured union of interests is axiomatic and is the fundamental idea of the government under which we live and of the institutions with which we are surrounded. I cannot for my part conceive of any reason ... why every chemist in the country should not wish to become a member of such an organization."

Not everyone shared such optimism. An emotional response came from C. Loving Jackson (Cambridge, MA) who was "opposed to any chemical society on the grounds that the country is too large for meetings, and I do not see that it would be of any advantage to chemistry." Incredulously, Jackson also saw "no field" for a journal, stating that "anyone who does anything toward multiplying the sources of scientific information deserves the curses ... of all scientific men." In a more subdued tone, C. F. Maberry (Case School) concluded that from the "opinions I have heard discussed, I am convinced that this [CCS] is quite out of the question. Such an attempt would receive little help from the men who are carrying on the larger portion of original research in this country. Without such support the scheme would evidently be hopeless." Toxicologist E. H. Bartley (Long Island College) was confident that Clarke did "not expect much support from the members of the ACS." After all, "this society is now in the field as an American Society with members all over the country. Is it likely that another will do better? There are more chemists in and about N.Y. than in any other location in America. Why change the headquarters for such an association when there are but a handful of chemists? To make all of the existing societies subsections would ... aid in building up the Washington or some other Society."

Pennsylvania Railroad Company chemist Charles B. Dudley (Altoona, PA) lamented that "I have done all I could thus far to help on the society whose headquarters are in New York, having constantly paid my dues, although I felt that very poor return was given for the money, since the New York Society has not been as efficient as could be desired." Convinced that "there is not room for two large societies," Dudley contended that "the question turns more on what can be done with the New York Society than on any other single consideration". While merging this society into the Continental was a possibility, he

concluded that "perhaps better still the American Chemical Society could be made the basis of the Continental." Support of the ACS also came from William McMurtrie (New York Tartar Co.) who could "scarcely see the necessity for another and independent organization until absolute or at least practical failure of this [ACS] society has been demonstrated." The ACS "is an active operation, is thoroughly organized, has a good membership of men of high standing, [and] is making an endeavor to extend its usefulness along exactly the lines proposed in this circular."

The longest defense of the ACS came from Charles A. Doremus (City College of New York) who elaborated on eight reasons why the ACS "shall be continued and that whatever may be deemed faulty in its constitution shall be modified to harmonize all existing views." Doremus hinted that "if in its [ACS] administration some, even of the most prominent chemists, may have felt aggrieved because perhaps their names may not have figured in high places, you may rest assured that the same difficulties ... will exist in any new organization. What guarantee is there of any new society being more successful? Are present prospects higher than those under which the ACS was born?" Doremus trusted "that at the American Association meeting there will be no evidence of sectionalizing or petty jealousy, but that a truly liberal spirit will prevail all deliberations on this subject." The eight-page letter dated 1 July evoked an Independence Day reply from Clarke. Six days later Doremus responded again, this time constructing a detailed scenario for implementing Clarke's scheme by "starting with the charter of the ACS." In rebuttal of Clarke's specific comments, Doremus pointed out that "men such as Dr. Bolton never entered the ACS because of dissension at the time of its founding," and "the meetings of the ACS have been held in N.Y. ... owing to the general apathy of the profession." Sensitive to individual interactions, Doremus wrote "strongly, ... for I should much regret to have our foreign professional brothers witness any inharmonious factions arising out of this movement."

It was Charles F. Chandler, however, serving as ACS President for 1889, who described the situation succinctly and candidly. He considered (9):

... it a very grave mistake to organize another chemical society of a general character. We already have an American Chemical Society, and we have recently modified the constitution so as to meet all the requirements, and I think it would be a very serious mistake to create another one. The present American Chemical Society will not be discontinued under any circumstances, and it seems a great pity for the chemists of the country to scatter their fire. The term "American Chemical Society" is just as continental as a matter of fact. What you say in your circular about a society similar to the British Society of Chemical Industry is met completely by what has been recently done in changing the constitution of the American Chemical Society. ... I would say, therefore, that in my opinion, it would be a fatal mistake

to establish the society that is proposed.

Chandler's caustic comments were not meant to be taken casually. He had watched the organization he founded in 1876 decline in membership as financial difficulties and journal publication problems increased (10). In addition, the growing dissatisfaction of chemists outside of New York resulted in the formation of other societies such as the CSW, founded by Clarke and Wiley in 1884. In spite of a dismal situation there was no real public concern about the ACS future until news of the AAAS meeting in Toronto during August of 1888 reached New York. "At the [7] December [1888] meeting the subject was discussed in the light of some vague reports, ... and there was a certain irritation expressed at the possibility of a new organization being formed without consultation with this Society, to assure the name which it has born." As a result, Chandler "was appointed ... Chairman of a Committee in considering any further developments of the subject" (11).

In early 1889 Prescott had begun gathering information for the AAAS on the feasibility of organizing a national chemical society (12). Among those responding to his inquiries were A. R. Leeds, J. P. Cooke, J. W. Mallet, W. A. Noyes, and Ira Remsen (13). While objecting to the proviso "that appointees of the AAAS remain a majority of the voting members" on a formal organizational committee, A. A. Breneman (editor of *JACS*) was willing "to make any sacrifice that would secure a better organization of American Chemists" (11). Worrying about how "to respect the organization and the vested rights of the ACS", he was optimistic "that your own name [e.g. Prescott] at the head of the committee is a guarantee of caution and judgment in the direction of the new movement, and for that reason wish it every success."

Writing to Prescott on 20 May 1889, Chandler saw "no difficulty in the way of accomplishing this most desirable end, provided everybody concerned is desirous of seeing it accomplished". Not surprisingly, Chandler thought "the best plan would be for all the chemists in the country to join the ACS" and proceed to reorganize the ACS with an annual meeting, local sections, and a journal. He was very specific that the journal issue was the most important matter of all. Suggesting that the *Journal of the American Chemical Society*, Hart's *Journal of Analytical Chemistry*, and Remsen's *American Chemical Journal* should be combined, Chandler was willing to give Remsen every concession to become editor. Using an unusual descriptor, Chandler assured Prescott "that the members of the New York Chemical Society (the American Chemical Society) would be willing to do everything that is reasonable in order to bring about so desirable a result" (3,14).

Almost immediately Prescott broached the idea with Remsen, who "carefully considered the subject" but "reached an unfavorable conclusion" (15). In a lengthy exposition of his reasons, Remsen made it clear that in his opinion the new organization and journal would not "advance the interests of

chemistry in this country." On 17 August 1889, with apparently little positive information to report on, Prescott solicited help from Clarke and Wiley in Washington. "I beg" Prescott wrote, "that you and your associates in Washington will make propositions, as to this report of the AAAS Committee, and as to action, if any, at Toronto... May I ask you to lay this letter before Professor Wiley and ask that he will kindly consider this letter addressed, also, to himself" (16,17).

Shortly thereafter, the final report was delivered at Toronto by Prescott and included a summary of individual and group comments, concluding with a brief order of procedure for formation of the new society (6,18). Prescott's fear that "unless the project is pretty clearly defined, to satisfaction of council, this body may refuse to confirm" (16) was subsequently justified, for no formal action was taken on the Committee report. On 23 September 1889, Prescott turned over his "meagre bundle" of correspondence to Clarke with his "good wishes for further effort" (19).

Alarmed by the AAAS committee suggestion that "the ACS holding meetings in New York ... submit its constitution and operative laws for the use of the committee, and to yield its name to the new Society," (16) and confronted with a formal proposal from C. E. Munroe on reorganization, the ACS began serious deliberations at the monthly meeting on 1 November 1889 (20). Discussion continued well into 1890 (21), culminating with a revised constitution adopted on 6 June 1890 (22). At the same time, Clarke and Wiley were gathering their support for the August 1890 AAAS meeting at Indianapolis. With a new constitution in effect, the ACS Board of Directors decided to meet Clarke and Wiley head on. On 22 July, a call was issued for the first general meeting of the ACS at Newport, RI. The dates were set as 6 and 7 August, just two weeks before the AAAS meeting. Munroe, who had been agitating for ACS reform, was surprised to be designated "chairman of the local committee with power." His apprehension about the lack of time and a poor location was dispelled by the arrival of the "genial, efficient, confidence-inspiring Dr. Charles F. Chandler, a host by himself." By special invitation, nonmember Frank W. Clarke was also in attendance (23).

Chandler chaired all of the sessions of the meeting, and on the second day "announced an informal discussion regarding the more general organization of chemists in America" and invited Clarke to present a "brief history of the movement" (23). There is no formal transcription of the resulting discussion. The effects, however, "were immediately noticeable" and "an era of good feeling and confidence were established" (23). When Clarke presented his report to the AAAS in Indianapolis just a few weeks later, he concluded with conciliatory remarks about the ACS. Particularly, he agreed that in "a consolidated national society the name of the American Chemical Society might well be retained by the enlarged organization ... which also would have rank of seniority above the other branches." It would be several years before the final consoli-

dation would come to fruition, but the die was cast and the future of the organization that "would rather swallow than be swallowed" was secured (24).

References and Notes

1. Presented in part at the 187th National Meeting of the American Chemical Society, St. Louis, MO, 9 April 1984; Abstract 013. The generous assistance of David M. Kiefer (*Chemical and Engineering News*) and Barbara A. Gallagher (American Chemical Society) is gratefully acknowledged. Their persistence was instrumental in uncovering the documentation reported in this paper. Jeffrey L. Sturchio (Merck & Co.) gladly provided important source material and shared his extensive expertise on the early ACS history. His continued interest and support is invaluable.
2. This Dickensian remark compared the ACS to the Club which was featured in *The Pickwick Papers*, published by Charles Dickens in 1837. See P. Harvey, *The Oxford Companion to English Literature*, Oxford University Press, London, 1938; p. 615.
3. From the collection of the American Chemical Society, Records Department, 1155 Sixteenth St., N.W., Washington, D.C. 20036.
4. Unless otherwise noted, this and all subsequent letters were written by the individual noted to Frank W. Clarke in June, July, or August, 1890. See Note 3.
5. J. J. Bohring, "Opposition to the Formation of the American Chemical Society", 184th National Meeting of the American Chemical Society, Kansas City, MO, September 1982, Abstract HIST 008.
6. "Report of the Committee of Conference on the Organization of a National Chemical Society", *Proc. Am. Assoc. Adv. Sci.* **1889**, 38, 35-38.
7. While the circular itself is undated, the earliest reply was written on 16 June 1890. There is no indication of the size of the original mailing list, although the responses seem to indicate that the 1889 membership rosters of the ACS, AOAC, and AAAS Section C were used.
8. In 1890 Frank Wigglesworth Clarke, age 43, was Chief Chemist of the United States Geological Survey. For more information on Clarke, see C. C. Gillespie, *Dictionary of American Biography*, Vol. 3, Scribner's, New York, NY, 1970-1979, pp. 292-294; C. E. Munroe, "Frank Wigglesworth Clarke", *J. Am. Chem. Soc.*, **1935**, 57, 20-30, and L. M. Dennis, "Frank Wigglesworth Clarke", *Bio. Mem. Natl. Acad. Sci.*, **1934**, 15, 146-165.
9. In 1890 Charles F. Chandler, age 54, was Professor of Chemistry at the Columbia College School of Mines. For more information on Chandler, see M. T. Bogert, "Charles Frederick Chandler", *Bio. Mem. Natl. Acad. Sci.*, **1932**, 14, 127-181, and R. D. Billinger, "The Chandler Influence on American Chemistry", *J. Chem. Educ.*, **1939**, 16, 253-257.
10. A detailed account of this period in ACS history is given by C. A. Browne and M. E. Weeks, *A History of the American Chemical Society: Seventy-Five Eventful Years*, American Chemical Society, Washington, D.C., 1952, pp. 26-40 and references therein.

11. A. A. Breneman to A. P. Prescott, 23 January 1889 (Note 3). Given the state of affairs of the ACS in December, 1888, Chandler was most likely the entire "Committee" described by Breneman.

12. Prescott had served as the ACS President in 1886 and AAAS Section C Vice-President in 1887. His committee appointed at the 1888 annual meeting of AAAS by Vice-President C. E. Munroe also had Alfred Springer (Cincinnati) and Edward Hart (Lafayette College) as members. For more on Prescott, see Anon., "Albert Benjamin Prescott", *J. Am. Chem. Soc.* **1905**, *27*, Proceedings p. 76-78. The official records of the meeting give no Committee report, but simply a listing of the Committee members. ("Special Committees", *Proc. Am. Assoc. Adv. Sci.*, **1888**, *37*, xviii). See also M. T. Bogert, "American Chemical Societies", *J. Am. Chem. Soc.* **1908**, *30*, 171.

13. J. W. Mallet to A. B. Prescott, 2 February 1889 (Note 3): "[I am not] sanguine as to the likelihood of a vigorous Chemical Society being established". "In reply to your question as to chemists who might be written to in the South", Mallet gave 18 names and addresses. Albert R. Leeds to A. B. Prescott, 6 February 1889 (Note 3): "The difficulty in Northumberland in 1874 was that the leading chemists would not cooperate. They will not do so ... until a man of the stamp of Agassiz, or Hofmann, or of the personal magnetism (if not imminence) of Sir Henry Roscoe bids them fall into line in his rear. The American Chemical Society was originally organized with sections, the presiding officer of the Philadelphia Section being Dr. Genth, but these were abandoned from lack of general support, so excellent a chemist as Genth preferring to publish in other channels." Josiah P. Cooke to A. B. Prescott, 10 February 1889 (Note 3): "I have little faith in the usefulness of National Societies of any kind in this country." Ira Remsen to A. B. Prescott, 12 February 1889 (Note 3): "With every desire to cooperate with you, I do not feel that much can be accomplished."

14. C. F. Chandler to A. B. Prescott, 20 May 1889 (Note 3). This letter indicates that Chandler was willing, even anxious, to institute reform within the ACS before the 1889 AAAS meeting. From the limited available sample it is the only positive and encouraging response Prescott received. Apparently Prescott was not enthused about Chandler's proposal, but preferred to keep the AAAS as the dominant group in the reorganization.

15. Ira Remsen to A. B. Prescott, 10 June 1889 (Note 3). A copy of this letter was also sent to Clarke on 13 June 1889.

16. A. B. Prescott to F. W. Clarke, 17 August 1889 (Note 3).

17. There is reason to believe that Prescott did not have much to report in terms of a consensus of American chemists (see Note 13). In fact, Prescott asked Clarke about representatives on an organizational committee ("What others? Chem. Section of Franklin Inst? The Soc. of Agr. Chemists?") His letter to Clarke and Wiley was a desperate plea for help.

18. Prescott's report appears to have been greatly exaggerated in the claim that there had been consultation with committees of conference appointed by AOAC, ACS, CSW, and the Franklin Institute. The ACS Committee was Chandler, while official approval of the AOAC and CSW came after this meeting (see Notes 11, 14).

19. A. B. Prescott to F. W. Clarke, 23 September 1889 (Note 3).

Browne and Weeks (Note 10) have given full credit for the CCS movement to Clarke, and do not even mention Prescott in their description of these events.

20. "Minutes of Monthly ACS Meetings, November", *J. Am. Chem. Soc.*, **1889**, *11*, 139-140.

21. "Minutes of Monthly ACS Meetings, December", *J. Am. Chem. Soc.*, **1889**, *11*, 153-154; *Ibid.*, "January", **1890**, *12*, 1-6; "February", 25; "May", 127; "June", 183.

22. "Constitution of the ACS", *J. Am. Chem. Soc.*, **1890**, *12*, 184-188.

23. See Munroe's personal account in C. A. Browne, "A Half-Century of Chemistry in America"; American Chemical Society, Philadelphia, PA, 1926, Chapter IV. The official record is given in "The Newport Meeting", *J. Am. Chem. Soc.*, **1890**, *12*, 247-255.

24. Edward Hart to Frank W. Clarke, 8 April 1891 (Note 3), commenting about the progress of the consolidation process.

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DIVERSIONS AND DIGRESSIONS

The Tie That Blinds

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This is a tale of the "Terrible Thirties", when (as now), chemists were expected to be serious and single-minded, and even a bit sub-cultured. It involves George L. Parkhurst, a retired Vice-President of Standard Oil of California, and the late Robert E. Wilson, one-time Chairman and CEO of Standard Oil Company (Indiana). George was a recent graduate of the Armour (now Illinois) Institute of Technology, and Bob was then Director of Research, ca. 1930-31, and had picked George as one of his up-and-coming young men. In later years, Wilson was on the first U.S. Atomic Energy Commission, and was always active professionally and scientifically, and in business and civic affairs.

One year at Christmas, Wilson received a particularly horrendous example of a "Christmas necktie" which he could not persuade Parkhurst to accept. We can only surmise that somehow the two agreed that the only possible solution to the problem would be to present it to someone formally. They decided on Dr. Ward V. Evans, Professor of Chemistry at Northwestern University, esteemed teacher, *bon vivant*, and a *raconteur par excellence*. Obviously there were some conditions attached to the gift, as there is a somewhat cryptic reference in the Chicago Section A.C.S. publication, the