

Inside AOCS

The first 30 years

The American Oil Chemists' Society is now in its 75th year, having been formed in 1909. In this article, first in a series on the history of AOCS, JAOCS assistant news editor Barbara Haumann reviews the Society from 1909 until the start of World War II.

On May 20, 1909, on the last day of the Interstate Cotton Seed Crushers' Association convention in Memphis, Tennessee, chemists and analysts from industrial plants and commercial laboratories gathered for a social meeting at The Jockey Club.

As a result of this meeting, the nine founders of AOCS — G. Worthen Agee, Edward R. Barrow, Edwin Lehman Johnson, Thomas C. Law, Felix Paquin, R.W. Perry, Frank N. Smalley, R.C. Warren and David Wesson — agreed that a cotton oil chemists' organization would promote social feeling, permit closer cooperation in developing uniform analytical methods and provide a means for research.

The group elected Paquin as president and asked Barrow and Agee to draft a constitution and by-laws for the next meeting to be held during Interstate's convention in 1910.

The society formally was organized as the Society of Cotton Products Analysts in May 1910 in Little Rock, Arkansas. "This name was chosen because very few of us had received real chemical education, and had been trained as laboratory assistants, making mostly routine tests," David Wesson later wrote. Wesson, in an address published in the society's journal *Oil & Fat Industries* of October 1927, recollected, "It was a very interesting occasion and some fine political work was done by the chemists representing the different conflicting interests to see that particular companies should receive as much influence as possible in the makeup of the new society."

The 20 charter members were chiefly oil testers employed at cottonseed mills and refineries. There were three standing committees: the Governing Committee, Committee on Membership and Committee on Uniform Methods and Cooperative Work. That last committee undertook what has been, and still is, an important role for AOCS — the development and standardization of analytical methods and procedures which later were incorporated in trading rules for the fats and oils industries.

In a look at the society's first 20 years, an article in the May 1929 issue of the society's journal said, "When, 20 years ago, a little group of chemists associated with the cottonseed oil industry met to found the society, the science of chemistry, as applied to the oils and fats, was little known and less practiced in this country. There were a few chemists working on the problems of refining oils for edible purposes, and some of the very largest American soapmakers had laboratory control of a sort for their factories. The constitution and structure of fats were little understood, however, and the composition of the various individual natural oils was clouded by many conjectures. Methods of analysis were those preferred by each chemist using them, and agreement of results between laboratories was a matter of fortuitous chance rather than of certainty. Methods in factory work were less certain even than those of the laboratory. Manufacturers thought they possessed secrets from their competitors and taught their chemists and other employees to be chary of discussion."

Wesson, in the April 1933 issue of *Oil & Soap*, explained, "It was a common sight to see several chemists chatting together, each man intent on telling as little as possible and learning what he could from his companions. Their methods of work were guarded with laughable secrecy, when it was considered that all had access to the same literature and trade practices."

The 1911 meeting was held in June in New York City at the Chemists' Club. Felix Paquin, president, later reminisced that the session was hastily adjourned for a boat excursion in New York Harbor.

Some time after the 1911 meeting, the society began stocking laboratory items not readily available to members. G.C. Hulbert, chemist with the Southern Cotton Oil Company and secretary-treasurer of the society, reported at the 1913 meeting that out of 1,000 official aluminum moisture dishes originally stocked, all but 135 had been sold.

In 1913, the group met independently from the

Interstate Cotton Seed Crushers' convention in Chicago.

The seventh annual meeting, in Memphis, was remembered for the fellowship fostered there. At the annual dinner, all 40 to 50 persons attending sat around a huge circular table at the Memphis Country Club.

One main discussion at early meetings centered on the discrepancies in grading cottonseed oil samples because of variations in Lovibond color glasses used in different laboratories. AOCS members did extensive work toward solving these problems. Another valuable contribution by the society was the "check sample" cooperative work begun by founding member Frank N. Smalley. This set the foundation for fostering accuracy in chemical analysis, particularly with cottonseed meal and oil.

A turning point for the organization came at the 1917 annual meeting in Dallas, Texas, when the Governing Committee accepted an offer to publish a quarterly "Chemists' Section" in the *Cotton Oil Press*, official publication of the Interstate Cotton Seed Crushers' Association. The *Chemists' Section* edited by G. Worthen Agee first appeared in the June 1917 issue. Membership at this time had grown to 85 regular members, two honorary members and seven associate members.

The entire proceedings of the 1918 meeting in New Orleans was printed in the *Chemists' Section* — a first for the society. The 1918 meeting itself marked another first — the first two-day convention held by the group.

During these years, the *Chemists' Section* and minutes from annual conventions revealed the society's growing influence on the oil and fat industry. The Oil Refining Committee, and particularly its standardization of laboratory refining procedure, proved to have wide impact on the industry.

In 1920, the organization officially became the American Oil Chemists' Society, a move opening the society to all chemists interested in oils and fats of every description. Membership in 1920 numbered 200.

Summing up the climate in the industry at that time, a June 1920 editorial in the *Chemists' Section* said, "The lines of demarcation between the different oil interests in the United States have almost disappeared. The linseed oil producers are making and using in the manufacture of nut margarine enormous quantities of coconut oil. Concerns once interested only in soaps are making more money by selling their oils in the shape of food products than as soaps. The importer or jobber who handles only one or two different oils is today either a rare specialist or a mighty small factor in the oil market."

During 1921-1922, the Governing Committee voted to incorporate the society under the laws of Louisiana. This was accomplished by the 1922 New Orleans convention. In 1923, two additional vice-presidents were elected to serve on the Governing Committee.

In 1924 during the 15th annual convention, the Governing Committee recommended expanding the description of the society's work in Article II

AOCS tangled roots

Although AOCS traditionally has listed nine founding members and 20 charter members, official minutes of the 1909 and 1910 meetings provide attendance rosters that vary from the traditional listings.

Seven of the nine founders are listed in the 1909 minutes as having attended the May 20, 1909, meeting at The Jockey Club in Memphis. These include the names of Agee, Barrow, Johnson, Law, Raquin, Perry and Smalley. Two of the official founders—R.C. Warren and David Wesson—are not listed. In addition, eight other persons are listed as having attended: W.A. Tennille of Savannah, H.B. Battle of Montgomery, L.C. Moore of Dallas, W.H. Marquess of Memphis, L.G. Yankey (probably from Aug-

usta), F.P. Farrar of Augusta, A.M. Wray of Memphis, and J. O'Donnell of Memphis. Wesson's later correspondence indicates he did attend the 1909 meeting.

Sixteen persons are listed in the 1910 minutes as having attended the May 25, 1910, meeting in the Marion Hotel in Little Rock, Arkansas. Those 16 are: Felix Paquin, F.N. Smalley, David Wesson, E.A. McDonald, J.B. Pratt, R.B. Hulme, E.L. Johnson, L.C. Moore, G.G. Fox, E.F. Sherubel, E.R. Barrow, W.J. Kallaher, David Schwartz, R.W. Perry, R.C. Warren and G. Worthen Agee. The other four charter members not listed in the official minutes as attendees were P.S. Tilson, H.B. Battle, Thomas C. Law and W.H. Marquess.

of the Constitution from "the promotion of the chemistry of fats, oils, wax and allied industries", to include "all kinds of vegetable and animal fats and oils, and the products made therefrom, such as edible materials, soaps, and paints," or, expressed in technical terms, "saponifiable fats and oils, including vegetable and other edible oils, animal fats, and fish and marine animal oils, and all products made from them." This recommendation, committee members explained, was not intended as an amendment to the constitution or by-laws, but rather an interpretation of Article II.

The *Chemists' Section* made its final appearance in the May 1924 issue of the *Cotton Oil Press*.

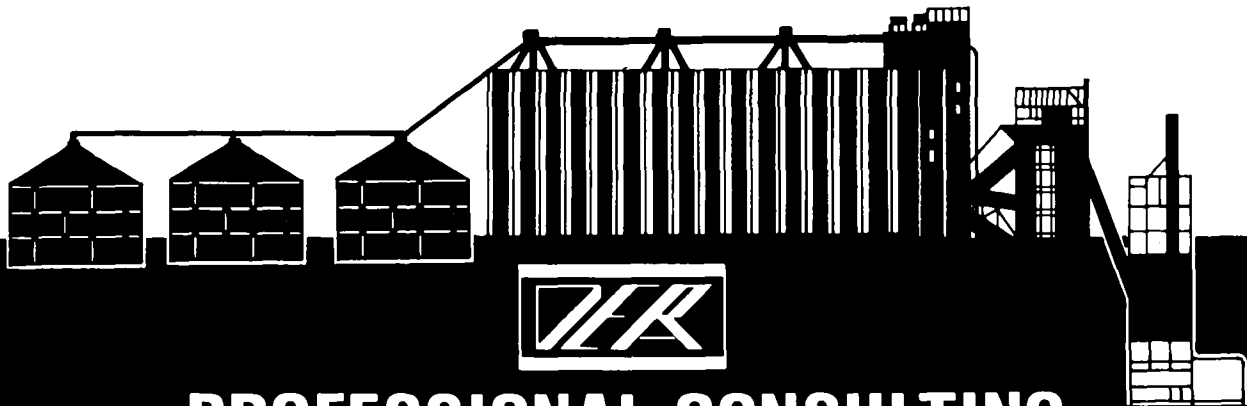
In July 1924, the first issue of the society's own quarterly publication, *Journal of the Oil and Fat Industries*, was published. By 1925, the mailing list for this journal included 325 subscribers, 13 of whom were in England, five from Canada and one or two each from Australia, Denmark, Holland, Brazil, Mexico, India, South Africa, Norway, Haiti and France. This quarterly was published through October 1925, when H.S. Bailey

took a job in California and was no longer able to continue as editor. At that time, the society handed publication responsibility over to Freeman-Palmer Publications, which in January 1926 began publishing the journal as a monthly.

AOCS' president in 1927, Harry P. Trevithick, inaugurated the first fall meeting in October 1927. The fall meeting was held at the Chemists' Club in New York City for a number of years, then was moved to Chicago. These meetings were designed to attract oil, fat and soap chemists unable to attend the spring meetings in the South.

In 1927, Alan Porter Lee became editor of *Oil and Fat Industries*.

At the 1928 annual meeting, AOCS decided to grant full referee certificates for the first time. Other action at that session included adoption of plans for a moisture oven, revisions of the Methods for printing and approval of joint research with the Interstate Cotton Seed Crushers' Association. At the fall meeting that year, the society organized a Soap Section, intended to improve analytical methods for the soap industry. A fourth vice-president



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was added in 1919 to coordinate the soap section.

During this time and through the early 1930s, members talked about possibly merging with the American Chemical Society. To this, W.H. Irwin, outgoing president in 1931, said, "While I believe every chemist should belong to the American Chemical Society, I think it would be a grave mistake for the American Oil Chemists' Society to affiliate itself with the American Chemical Society. The American Chemical Society is so enormous at the present time and its activities are so varied that we would be lost sight of and would not be able to accomplish what we have and are accomplishing as an independent organization." No formal step was ever taken to merge with the American Chemical Society.

On Jan. 1, 1932, under Lee's direction, the Gillette Publishing Company of Chicago began publishing the journal under the name *Oil & Soap*. This, according to 1931-32 AOCS president A.S. Richardson, gave recognition to the society's new soap section while retaining the oil and fat industry as a primary focus.

The Depression years had their impact on the industry.

Articles in the society's journal did not refer to the Depression until 1930. In July 1930, an article reported that European oil and fat consumption had declined, with whale oil and other fish oils being substituted for vegetable oils. In August 1930, an article pointed out that prices for all oils and fats had been "scraping bottom" for several months. Census bureau statistics showed production of vegetable oils in the second quarter of the year were 61 million pounds less than in the corresponding quarter in 1929, while animal fats had declined by 23 million pounds, fish oil by 2 million pounds and greases by 8 million pounds. An Editor's Page article pointed out, however, that while the use of edible fats had decreased, it had not dropped as drastically as the use of nonedible fats and oils: "The necessity for fat in the diet is such that even when the family budget is curtailed, an appreciable proportion must be allotted for fatty foods."

The Editor's Page in the September 1931 journal noted that "One of the most interesting elements is found in the continuance of the soap industry's demands for fats and oils. Comparative poverty and unemployment evidently cannot conquer the native urge for cleanliness of the American population."

But if prices for oil and fats were low in 1930, they were even lower in 1932. A September 1932

editorial commented, "Prices of all oils and fats have, during the past six months, drifted to the lowest levels of record during the past 30 years or more. While the same period had witnessed a steady decline in market prices of all commodities, the drop in the field of glycerides has been proportionately greater than that in most other lines. Various reasons have been advanced for this abnormality, including, among others, great overproduction of whale oil, reduced buying power of consumers causing slackened demand, refusal of important soapmakers to maintain raw material stock, etc. Regardless of the cause, the fact remains that producers and refiners of fatty products, at the moment, can obtain only depression prices for their commodities."

N.C. Hammer, in his presidential address published in the June 1933 issue of *Oil & Soap*, said, "At the beginning of our last year, the industry we serve was in the doldrums, and consequently many of our members were out of employment; many were overloaded with work on account of short staffs maintained by the companies they serve; and the members in the commercial field were not making money."

The new *Oil & Soap* journal, meanwhile, was having a struggle. Early in 1932, publishers stopped paying editor Lee's salary, basing his pay solely on commission for selling advertising space. In January 1933, Lee resigned as editor. W.H. Irwin, chairman of the journal committee, then took over.

The society itself faced a period of tight funds in 1933. Two banks where AOCS had deposited money operated on a restricted basis. According to a letter written by J.C.P. Helm, AOCS treasurer at that time, the society had kept its checking account and the major part of its savings in the Canal Bank of New Orleans, and divided its last \$1,000 between what seemed to be the next strongest banks in the city — the Hibernia and the Whitney. "With the Canal Bank and the Hibernia Bank on a 5% basis and the bonds of the Chicago Medical Arts Building that Mr. Fash bought now practically worthless, the only *good money* we have is the \$500 savings account in the Whitney Bank, the only good one now in this city," Helm wrote. Helm managed to withdraw the 5% allowed from Hibernia and Canal Banks and opened a checking account in Whitney to pay bills. He then voluntarily cut in half his salary and that of his stenographer. Later, conditions improved and the society was able to recover its funds.

At the 1933 fall meeting, new committees were

1944 perspective

During the society's 35th anniversary celebration in 1944, Lamar Kishlar, AOCS president at that time, described the work of the charter members in these words:

"In 1909 when that little group of nine pre-founders assembled to discuss the formation of this society, I wonder if they visualized the proportions to which the group would grow. I wonder if they realized, when they first discussed its aims and purposes, the influence on science and commerce of the organization they were establishing. I wonder if any one of them could imagine the untold billions of dollars in trade whose contracts would carry the stipulation, 'Methods used to be those of the

American Oil Chemists' Society.'

"In 1910 when those 20 men assembled to set up the first permanent organization, I wonder if they foresaw Official Referee Chemists to help iron out the little disputes within the industry and a Referee Board to select those gentlemen. Did they know the extent to which collaborative samples would aid in standardizing the work of hundreds of laboratories? Who foresaw an official journal which would be sought by college, government, and public libraries at home and abroad? How could one know the extent to which society members would aid scores of federal agencies in solving the knotty problems caused by a global war?"

established for olive oil, linseed oil and sampling. The planning committee, which later merged with the Uniform Methods committee, was revamped so that each man on it represented a segment in industry. Work was also being carried out concerning the color and calibration of Lovibond glasses in cooperation with the U.S. Bureau of Standards.

By the end of the 1930s, methods had been standardized for cottonseed, peanut, corn, soybean and coconut oils and their byproducts. One of the most difficult problems still confronting oil chemists was the color comparison of fats and oils.

There had been a gradual change in the character of research reported in AOCS publications in these years. At first, problems discussed had been basic ones in the applied fields of oil and soap. Later, the articles considered more theoretical problems in fat chemistry and technology, with the involvement of improved analytical techniques.

Despite some loss of members during the Depression, membership in 1934 numbered 295 people. By 1942, membership ranks had grown to 597.

A questionnaire sent out by *Oil & Soap* in the spring of 1941 showed the following profile of journal readers: readers were chiefly interested in

vegetable oils, with cottonseed oil and soybean oil leading the list, followed by other oils, animal oils, land animals, linseed oil, marine oils and mineral oils. Chief employment was in laboratories, followed by (in descending order) research, control, processing, refining, deodorization, hydrogenation, extraction, pressing, packaging, purchase and sales. Edible oils were the leading product, with fatty acids second, soap third, fatty alcohols fourth and detergents fifth. Others listed (in descending order) were sulfonated oils, paint, synthetic resins, lubricants, insecticides, printing ink and linoleum. Generally speaking, great interest was expressed in vegetable oils, edible oils, shortening, fatty acids and synthetics.

Asked about article content, readers said they wanted to read more about processing, followed by reviews and analyses, equipment, abstracts, news and editorials. When asked what type of company should advertise, readers said "equipment". However, with the war under way, equipment at that time was oversold and scarce.

The war would bring many changes to the fats and oils industry, and to the American Oil Chemists' Society.

JAACS discontinuing abstracts

Literature abstracts will no longer appear in *JAACS* after this issue. The AOCS Executive Committee decided earlier this year to suspend publication of the abstracts after all those that were in the production process had been published. The decision was made in an effort to reduce costs.